

Policy Brief: Addressing behavioral barriers and information gaps to boost uptake of existing Green Finance schemes among Indian MSMEs

Executive summary

India's transition toward a low-carbon and climate-resilient economy increasingly depends on the transformation of its Micro, Small, and Medium Enterprises (MSMEs)¹, contributing 30% to GDP and nearly a quarter of industrial energy use. The sector comprises more than 63 million enterprises and contributes significantly to manufacturing output, employment generation, and exports. However, MSMEs are also resource- and energy-intensive, accounting for a substantial share of industrial energy consumption and emissions across sectors such as textiles, food processing, chemicals, foundries, and brick kilns (Niti Aayog, 2026).

India's updated Nationally Determined Contributions under the Paris Agreement, including targets to reduce the emissions intensity of GDP by 45% from 2005 levels by 2030 and to achieve 50% cumulative electric power capacity from non-fossil fuel sources, require deep decarbonization across industrial value chains (PIB, 2026). Achieving these national objectives will therefore require MSMEs to adopt clear production processes, improve energy efficiency, and transition toward low-carbon technologies. This, therefore, places MSMEs at the center of India's green industrial transformation and highlights the critical role of green finance in enabling this shift.

Towards this, India has several green finance schemes targeting MSMEs, including priority sector lending (PSL) mandates, concessional credit lines from SIDBI, DFI-backed green credit guarantees, and state-level incentive programs. Yet, actual uptake by MSMEs remains limited, with only approximately 16% of MSMEs in India financed through formal banking systems ([TERI 2022](#)).

Research indicates that eligible MSMEs either do not know about these schemes, perceive them as complex or risky, or default to familiar working capital and term-loan products.

¹ According to Government of India's Ministry of MSME portal, MSMEs are enterprises engaged in manufacturing or services that are classified based on a composite criterion of investment in plant and machinery/equipment and annual turnover.

Women-led, rural, and first-generation entrepreneurs face additional constraints in accessing information, building networks, and building confidence to engage with formal financial institutions. As a result, the potential of existing schemes to drive low-carbon transition and resilience in the MSME sector remains unrealized. The policy challenge is therefore to address the behavioral and informational “last mile” barriers that prevent MSMEs from demanding, applying for, and successfully using existing green finance schemes.

This brief argues that information and behavioral barriers account for the bulk of the “last mile” challenges to green finance uptake in MSMEs. It proposes a four-part strategy to close this gap: **(1)** localized awareness and capacity-building drives for MSMEs and intermediaries, **(2)** peer-led demonstrations and success stories to build trust and social proof, **(3)** a dedicated Center for Sustainable Finance Awareness and Behavioral Change for MSMEs, and **(4)** a unified Green MSME Portal to simplify access to information and schemes. Together, these measures aim to turn policy intent into effective, on-the-ground adoption of green finance and accelerate MSMEs’ contribution to India’s green transition.

1. Problem statement

1.1. The Scale of the MSME Sector

MSMEs are a cornerstone of India’s economic and climate transition, accounting for approximately 30.1% of India’s GDP (PIB, 2025). MSMEs account for about 25% of the total energy consumption of the Indian industrial sector. Of this, around 15% comes from electricity, while the remaining 85% is from thermal energy, making the sector a critical target for decarbonization efforts (TERI 2022). Compounding this, MSMEs are also disproportionately vulnerable to climate impacts due to their limited adaptive capacity, with events like Cyclone Michaung alone damaging over 4,800 MSME units and causing losses of at least USD 360 million (Business Wire 2025, [WRI 2024](#)).

Although MSMEs emitted approximately 135 MtCO₂e in 2022 ²— driven largely by their heavy reliance on coal and fossil fuels, which together account for around 90% of overall MSME emissions — the sector is expected to expand significantly in the coming decades (NITI Aayog, 2026). Early action is therefore important to avoid locking in inefficient and

² This figure is a working estimate rather than a direct measurement. The NITI Aayog Roadmap derives it by applying a 3% year-on-year increase to a 2015 Climate Trace baseline of 110 MtCO₂e, rather than from primary emissions data.

carbon-intensive production patterns. At the same time, MSMEs represent a major opportunity for cost-effective energy-efficiency improvements that can reduce operating costs while improving productivity and competitiveness. The Niti Aayog Roadmap for Green Transition of MSMEs (2026) estimates a combined decarbonization potential of 75–87 MtCO₂e over the next 10 years through energy efficiency, green electricity, and alternative fuels ([NITI Ayog, 2026](#))

Supporting the green transition of MSMEs is also becoming increasingly important from a trade and industrial competitiveness perspective. International markets are progressively introducing climate-related standards and carbon regulations, such as the European Union's Carbon Border Adjustment Mechanism (CBAM), which is expected to apply fully from 2026 onward. Because Indian manufacturing remains relatively carbon-intensive, notably due to the heavy reliance on coal, Indian exporters — including MSMEs operating in sectors such as textiles, engineering goods, steel, and paper — may face additional costs and reporting requirements when accessing foreign markets. Similar regulatory approaches are also being considered in other major economies. Helping MSMEs adopt cleaner technologies and improve energy efficiency is, therefore, not only a climate priority but also a key condition for maintaining export competitiveness and integration into global value chains.

1.2. The Credit and Green Finance Gap

Despite their economic significance, MSMEs face a significant credit gap:

Indicator	Data
MSME Credit Gap in India	~USD 39 billion (INR 30 lakh crore) (SIDBI 2025)
MSME Credit Gap Global	~USD 5.7 trillion (IFC, 2025)
Formal banking access to MSMEs in India	20% (PIB 2025)
Green finance access to MSMEs in India	Less than 10% (CRF India 2025)

These numbers highlight the scale of the MSME credit gap in India, which is even more acute for green finance. India has built a strong climate finance architecture. However, MSMEs and distributed projects across sectors remain underserved, and much of the available finance continues to flow to large-scale installations. In contrast, smaller, high-impact projects struggle to access capital ([CPI, 2024](#)).

Schemes such as the Micro and Small Enterprises Green Investment and Financing for Transformation (MSE-GIFT) Scheme and the MSE-SPICE Scheme (Micro and Small Enterprises Scheme for Promotion and Investment in Circular Economy) signal strong policy intent but have so far achieved limited reach, with reported fund utilization of under 1% ([Mint, 2025](#)). Overlapping schemes like the ZED certification and the Energy Conservation Act confuse MSMEs, resulting in only 15% compliance with ZED guidelines ([Anjappa, 2025](#)). Uptake of green finance for MSMEs, therefore, remains constrained by awareness, operational, and credit-related barriers, underscoring the need for more targeted, on-the-ground interventions to improve access and use. The Kinara Capital survey suggests that 73.2% of MSMEs are unaware of green finance options, and many were deterred by uncertainty around the application process ([Kinara Capital, 2025](#)). Similarly, data suggests limited awareness of low-cost funding among MSMEs, with 67% reporting limited or no awareness of low-cost green finance options ([Dun & Bradstreet & SIDBI SPeX Survey 2023](#)). Thus, the barriers to green finance uptake are not only about the supply of schemes, but also about information asymmetries and behavioral frictions.

Why the gap persists

MSMEs continue to engage with schemes at low levels due to gaps in guidance, accessibility, and ease of use. Evidence suggests that many enterprises remain unaware of available schemes or face difficulties accessing them, thereby reducing the overall effectiveness of policy support ([Government of India 2025](#)). Further, MSMEs face multiple interlinked barriers that limit their adoption of green finance, as illustrated below:

Demand-Side Challenges

1 ► Definitional Clarity on What Counts as “Green”

- Limited clarity on what qualifies as ‘green’ for MSMEs makes it difficult for enterprises to assess eligibility, causing many to opt out through self-selection even when they qualify (CRF, 2025; TERI, 2022)

- Significant information asymmetry compounds this gap: while 65% of MSMEs are aware of decentralized renewable energy (DRE) solutions, only 48% adopt them, citing unclear policies, high upfront costs, and uncertain eligibility
- Together, unclear definitions, weak information access, and low scheme awareness create a self-reinforcing cycle that keeps MSMEs on the margins of green finance



2 ► Status Quo and Perceived Risk

- MSMEs often hesitate to adopt green technologies due to uncertainty around regulatory processes and persistent doubts about the reliability of new solutions—as seen in the reluctance of traditional brick kilns to adopt low-carbon alternatives (ORF, 2024; Mongabay, 2026)
- Even with proven benefits, MSMEs remain an untapped segment, showing wider reluctance toward technologies outside their core operations (IEEFA 2021). Evidence shows 19% of MSMEs avoid credit due to fear of slow business and 10% due to fear of debt, signaling high risk aversion and low financial literacy (FMT 2025)
- These uncertainties increase the perceived risk of green investments and strengthen status quo bias, making MSMEs prefer sticking to familiar practices



3 ► Short Time Horizons

- Many MSMEs remain focused on day-to-day survival, making them reluctant to invest in technologies with longer payback periods (UNESCAP 2023)
- This short-term outlook, coupled with risk-averse family-run management structures that wait for larger firms to validate new solutions, limits appetite for green investments

- Older or family-based management structures adopt particularly risk-averse mindsets, preferring to wait for larger companies to validate new technologies before considering adoption. Green or resource-efficiency upgrades rarely feature in medium-term planning
- This reinforces persistently low adoption despite obvious economic and environmental benefits



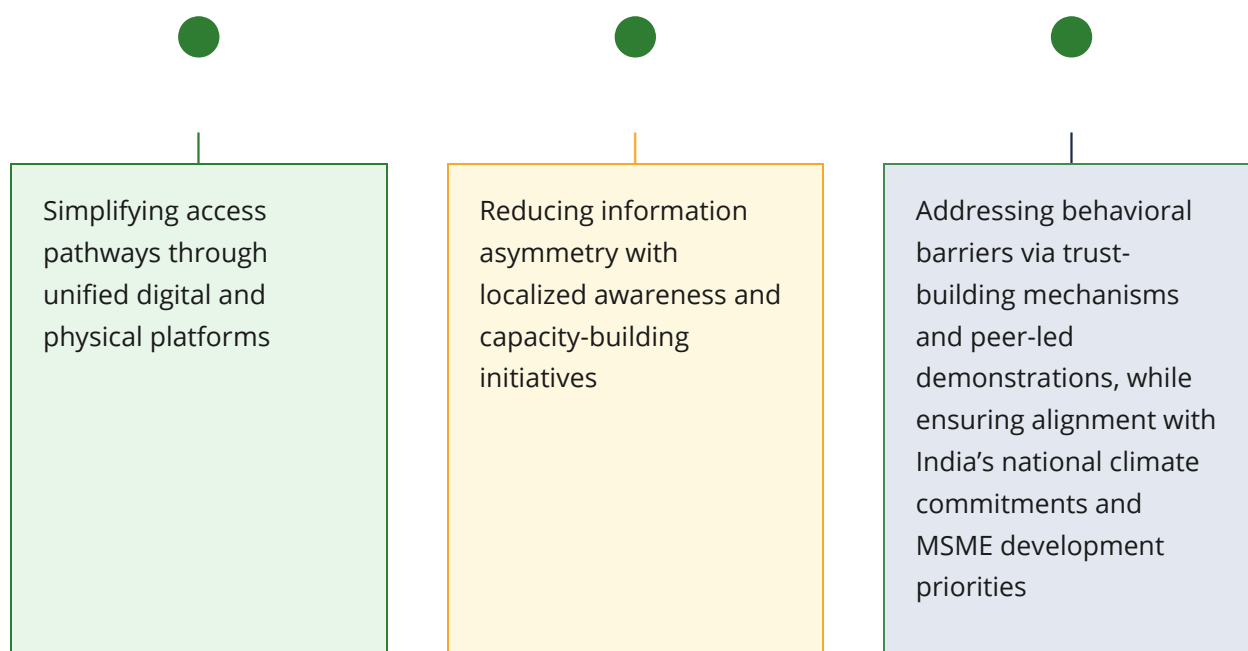
4 ► **Limited and Unreliable Information Channels**

- MSMEs often rely on newspapers or word of mouth to learn about green finance schemes—sources that many do not regularly follow—resulting in partial, outdated, or confusing information (Ajitha & Safia, 2022; Das et al., 2025)
- Most small enterprises do not actively read policy material or scheme updates, making it harder to interpret eligibility or requirements
- Limited digital skills and weak documentation capacity further constrain their ability to navigate online portals or access official guidelines, leaving them effectively excluded

Together, these factors create a reinforcing barrier loop, from unclear classifications to documentation hurdles, skepticism, and borrower mistrust. This suggests that MSME uptake of green finance remains low despite strong policy intent.

Strategic pillars:

To establish an enabling ecosystem that significantly increases MSME participation in existing green finance schemes, the following pillars would be essential:



Recommendations

- 1. Expanding last-mile awareness and capacity building** - Providing direct, localized awareness and training to MSMEs is essential for turning scheme availability into actual uptake
 - Conduct district-level awareness drives on schemes, by dividing districts into manageable MSME clusters for targeted outreach and support
 - Organize on-ground training sessions and handholding clinics as done for PM – MUDRA (PIB, 2024) to help MSMEs understand scheme eligibility, documentation, and application steps
 - Use local media and local-language materials to reach enterprises that are less connected to formal institutions
 - Use simplification and framing to convey clear, jargon-free messages that highlight immediate, tangible gains, such as quick cost savings or short payback periods. This reduces cognitive load and motivates MSMEs by showing concrete short-term benefits. E.g.: switch to LED lighting and cut monthly electricity bills by 15%
 - Incorporate behavioral cues such as step-by-step guidance, social-proof examples from similar MSMEs (e.g.: over 50% of units in your cluster have adopted energy-efficient motors” or “Nearby SMEs reduced energy costs by 20%”), and messages

delivered through trusted associations or lenders, to lower perceived risk, ease fear of rejection, build confidence, and make green finance schemes feel approachable, credible, and actionable

2. Use peer demonstrations and success stories to build trust - Seeing real benefits from cost savings to easier compliance may reduce mistrust or skepticism among MSMEs

- Host government-sponsored roadshows in ~50 MSME clusters, ensuring cluster associations are engaged to represent the government and help disseminate information locally
- Feature local MSME owners who have successfully accessed green finance, sharing tangible results like savings, efficiency gains, or revenue growth, on state MSME portals and social media channels, as success stories shared by association representatives can have a stronger impact on the public
- Share before-and-after visuals or short case stories through simple infographics, posters at roadshows, short advertisements like video clips to highlight improvements in savings and efficiency to build confidence and encourage participation, while ensuring circulation of these materials within their networks to maximize reach

3. Establish a centralized institutional mechanism for sustainable-finance outreach & behavioral change - A dedicated body to professionalize outreach and tailor behavioral-insight-based interventions for MSMEs and banks alike

- Creating a Center for Sustainable Finance Awareness and Behavioral Change to design, monitor, and scale outreach initiatives aimed at improving the awareness of MSMEs. It may be drawn from models like the Center for Sustainable Finance (CSF), which uses behavioral nudges to strengthen sustainable finance ecosystems, and adapts similar approaches to address behavioral barriers and improve MSME uptake of green finance
- Equip the center to develop behaviorally informed educational materials, run capacity-building programs for banks and MSMEs, and coordinate across ministries, financial institutions, and state bodies
- Use this institutional platform to highlight high-level deals (e.g., SIDBI-AFD) in grassroots-level communication and actionable support

- 4. Streamlining the existing “Green MSME Portal” as a single-entry point for all schemes** - Simplifying access through a one-stop digital interface lowers friction, reduces confusion, and improves transparency
- While there exists the Green MSME Portal, its scope is limited to just two major schemes (GIFT and SPICE). Strengthening the portal’s architecture by eliminating duplications and integrating dispersed data sources can transform it into a seamless, time-efficient platform for MSMEs
 - Integrate and unify all major green and MSME finance schemes: subsidy-linked, lending, certification support, energy-efficiency grants, etc., under one simple-to-use and understand portal
 - Build user-friendly features: pre-filled forms using Udyam/GST data, step-by-step guidance, vernacular language support, help desks/chat support, and application status tracking

Conclusion

India’s green transition cannot move forward without its MSMEs. The slow uptake of green finance shows that barriers lie not only in systems and schemes but also in business and operational behaviors. Trust deficits, documentation fatigue, and limited awareness continue to discourage MSMEs. Industry bodies, too, must support this shift by promoting timely payments and responsible financial practices. Bridging the gap will require clearer communication, greater confidence, and behavioral alignment across the ecosystem to enable MSMEs to participate fully in India’s green finance transition.

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