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EEPCINDIA
ENGINEERING THE FUTURE

Embracing the Circular Economy

Must-win strategy for Indian MSMEs in global trade

MSME
CONCLAVE
8 NOVEMBER 2024

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मर्सी एपाओ
संयुक्त सचिव
MERCY EPAO
Joint Secretary

सत्यमेव जयते

आज़ादी का अमृत महोत्सव

भारत सरकार
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MINISTRY OF
MICRO, SMALL AND MEDIUM ENTERPRISES
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MESSAGE

Ministry of Micro, Small and Medium Enterprises (MSME), Government of India, extend its best wishes to EEPC India for organizing the International Conference on ***Circular Economy*** at Mumbai on 8th November, 2024. We also welcome the launch of a Knowledge Paper for the MSMEs.

2. This Conference will be a good platform to spread awareness on circular principles, and enable competitiveness and sustainability for MSMEs. Such Conferences do align with the Ministry's aim to promoting green landscape for MSMEs, sharing knowledge, potential markets, strategic partnerships, technology transfer, capacity building etc.

3. I am confident that the Knowledge Paper will act as a resource and tool to reinvigorate the MSMEs towards profitable and sustainable practices. Such goals build a strong economy fostering innovation, technology, employment and trade, thereby contributing to India's journey towards a more sustainable ecosystem and Viksit Bharat.

Best wishes.

(Mercy Epao)

Place : New Delhi
Date : 15th October, 2024

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FOREWORD

Micro, Small, and Medium Enterprises (MSMEs) form the backbone of India's economic structure, driving growth, innovation, and employment across the country. As India moves toward its vision of sustainable development, the role of MSMEs becomes even more critical. In the face of mounting global environmental concerns and stringent regulations, particularly from international markets, the shift towards sustainable and circular practices is not just a compliance issue but a strategic imperative for these enterprises.

This paper, published by the International Council for Circular Economy (ICCE), provides a comprehensive exploration of the essential role MSMEs play in India's green transition. It highlights the pressing need for these industries to embrace circular economy principles—not only as a way to minimize environmental impact but also as an opportunity to innovate, reduce operational costs, and enhance competitiveness in both domestic and global markets.

One key focus of this paper is the European Union's Carbon Border Adjustment Mechanism (CBAM), a policy that underscores the growing demand for eco-friendly practices. The CBAM presents both challenges and opportunities for Indian MSMEs, and this paper provides thoughtful insights and strategic recommendations to help these enterprises navigate the evolving regulatory landscape while maximizing their potential for growth and sustainability.

As we continue to build resilient, forward-thinking industries, we believe this paper will serve as a valuable resource for MSMEs, policymakers, and stakeholders committed to fostering a more sustainable and inclusive economy. It is a call to action for Indian MSMEs to seize the opportunity, adapt to emerging global trends, and lead the way toward a circular and sustainable future.

Sincerely,
Shalini Goyal Bhalla
Founder & Managing Director
International Council for Circular Economy (ICCE)

SPECIAL ADDRESS

As the world grapples with the urgent need for sustainable development, the circular economy emerges as a critical paradigm shift. By adopting circular principles, businesses can optimize resource efficiency, reduce waste, and create innovative products and services that meet the demands of a changing market, and contribute to a more sustainable future.

I congratulate the collaborative effort between the EEPC India and International Council for Circular Economy for this novel initiative. This paper delves into the unique challenges and opportunities faced by Indian MSMEs in transitioning to a circular economy. By providing insights into best practices, case studies, and policy recommendations, we aim to empower MSMEs to embrace circularity and thrive in the global market.

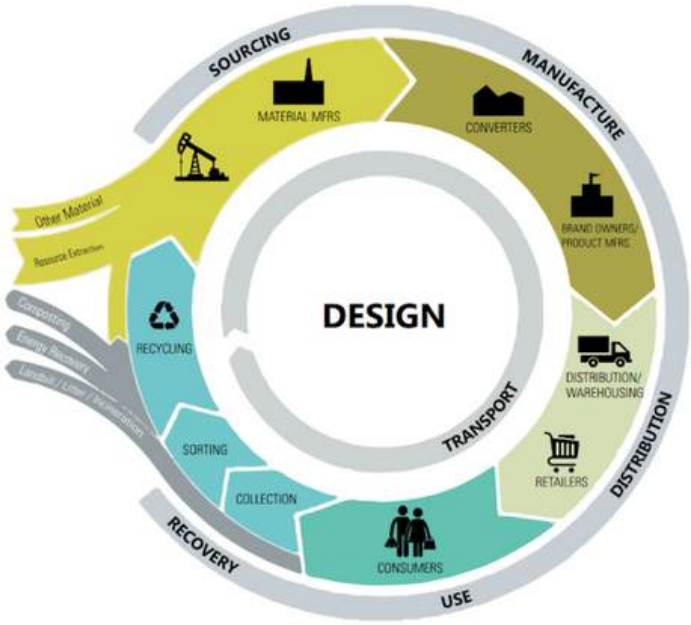
I believe that this paper will serve as a valuable resource for engineering MSMEs across India, inspiring them to innovate, collaborate, and adopt circular business models that drive sustainable growth and economic prosperity.

Sincerely,
Shri Adhip Mitra,
Executive Director & Secretary,
EEPC India

EXECUTIVE SUMMARY

Micro, Small, and Medium Enterprises (MSMEs) are a critical component of India's economic framework, contributing significantly to the GDP, employment, and exports. As global environmental concerns intensify, there is a growing need for industries to adopt sustainable practices. For Indian MSMEs, the green transition is not just a regulatory requirement but an opportunity to innovate, reduce costs, and enhance market competitiveness.

This paper explores the vital role of MSMEs in India, the necessity of transitioning towards sustainable practices, and the potential of adopting circular economy principles. It delves into the challenges and opportunities presented by the Carbon Border Adjustment Mechanism (CBAM) introduced by the European Union and provides strategic recommendations for Indian MSMEs to thrive in an increasingly eco-conscious global market.



Diagrammatic representation of a circular economy
https://wsds.teriin.org/2018/files/teri-yesbank-circular-economy-report.pdf

INTRODUCTION

1.1 Overview of MSMEs in India

Micro, Small, and Medium Enterprises (MSMEs) form the backbone of India's economy. They contribute approximately 30% to the country's GDP and provide employment to over 110 million people. MSMEs are responsible for about 45% of India's total exports, playing a crucial role in the nation's global trade. Their ability to generate employment, foster innovation, and drive economic growth makes them indispensable to India's economic structure. This sector encompasses a diverse range of industries, including manufacturing, services, and trade, with each playing a vital role in regional development as well as economic diversification.

Moreover, the contribution of the MSME sector to the Gross Value Added (GVA) of the Indian economy has seen a 1.69% growth from FY21 to FY22. It currently stands at 30.1% of the Indian GDP.

Year	Share of MSME GVA in the Indian GDP
2017-18	29.7
2018-19	30.5
2019-20	30.5
2020-21	27.3
2021-22	29.6
2022-23	30.1

Year	% share of MSME related goods in the Indian GDP
2019-20	49.75
2020-21	49.35
2021-22	45.03
2022-23	43.59
2023-24	45.73
Upto May 2025	45.79

Translationally, the share of exports of MSME specified products as a proportion in all India exports have witnessed a growth of 4.9% from FY22 to FY23, now amounting to 45.7% of all goods exported from the country.

Under India's G20 presidency, there is an increased focus on integrating MSMEs into international trade. However, despite laws like the MSMED Act, 2006, and the Trade Receivables Discounting System (TReDS), successful implementation has yet to be achieved. As on 16.07.2024, the total employment reported by the MSMEs on the Udyam Registration Portal (since 01.07.2020 to 16.07.2024; a duration of 4 years and 15 days) is 20.39 Crore (including informal micro enterprises registered on the Udyam Assist Platform), this is about 63.9% of the total Indian workforce of 56.5 Crore individuals.

Within the MSME sector, each of the three sub-sectors: trade, manufacturing and other services, account for about one third of the total employment. Around 50% of the total MSMEs operate in rural areas and these provide 45% of total employment in the country. Moreover, the micro enterprises account for 99% of the total employment generated in the MSME sector.

A few of the numerous schemes/programmes initiated by the government for the growth of the MSME sector include:

- MSME Champions Scheme
- Credit Guarantee Fund Trust for Micro and Small Enterprises (CGTMSE)
- Prime Minister's Employment Generation Programme (PMEGP)
- Micro and Small Enterprises - Cluster Development Programme (MSE-CDP)
- Raising and Accelerating MSME Performance (RAMP)

1.2 The Importance of Sustainability

As the world grapples with climate change, resource depletion, and environmental degradation, sustainability has become a global priority. Industries across the globe are under pressure to adopt sustainable practices to mitigate environmental impacts.

For MSMEs, sustainability is not only about complying with regulations but also about enhancing their long-term viability and competitiveness. The green transition is a pathway for MSMEs to achieve economic growth while minimizing their environmental footprint.However, despite the MSME sector contributing significantly to the economy, it faces several challenges, especially in the context of ensuring circularity. The major hurdles include physical infrastructure bottlenecks, lack of formalization, slow technology adoption, poor backward and forward linkages, among others. .

However, as MSMEs represent a significant portion of the country's economic activity, integrating sustainable practices is vital for their long-term viability, competitive advantage, and contribution to the broader environmental and social goals that have become the need of the hour. Sustainable practices not only lead to cost savings, but also ensure the usage of energy-efficient technologies as well as waste reduction strategies which lower operational costs and enhance profitability. Moreover, adopting sustainable practices can help MSMEs differentiate themselves substantially in the market. Consumers and clients have begun increasingly favoring businesses that demonstrate elevated environmental responsibility and ethical practices.

On the other hand, for organizations like MSMEs, that often operate with limited resources, effective and meticulous management can inadvertently lead to environmental advantages. Lastly, since MSMEs play a pivotal role in local economies by employing rural populations, sustainable practices can further enhance their role in community development. This can be brought about by creating jobs, improving working conditions, in addition to supporting local suppliers.

NEED FOR A GREEN TRANSITION

2.1 Challenges for MSMEs

While the green transition presents numerous opportunities, it also poses significant challenges for MSMEs. Limited access to resources, technology, and finance are some of the primary barriers that hinder the adoption of sustainable practices. Many MSMEs operate on thin profit margins, making it difficult for them to invest in green technologies and practices. Additionally, the lack of awareness and technical expertise further exacerbates these challenges.

Another substantial problem faced by the MSME sector is that of delayed payments and limited access to funding. Not only does this hamper the working of the enterprise, it inhibits the organization from adapting greener and healthier means of process. Dun & Bradstreet estimates that delayed payments to MSME suppliers amount to Rs 10.7 lakh crore annually. Since 99% of India's MSMEs are micro enterprises, these payment delays substantially hinder their ability to scale up.

Despite the impending need for the adoption of circular economy practices by MSME firms, a sluggish progress towards the goal continues to remain due to a number of barriers impeding their successful adoption.

2.2 Opportunities in Green Transition

Despite the challenges, the green transition offers numerous opportunities for MSMEs. By adopting sustainable practices, MSMEs can reduce their operational costs, improve efficiency, and gain a competitive edge in the market. The shift towards sustainability also opens up new avenues for innovation, allowing MSMEs to develop eco-friendly products and services that cater to the growing demand for sustainable solutions. For the Indian MSME sector, this transition opens up a range of opportunities that can enhance competitiveness, drive growth, and contribute to environmental conservation.

1. Adopting energy-efficient technologies and renewable energy sources can significantly reduce operational costs and even the dependency on traditional exhaustible energy sources like coal and petroleum. As an example, small manufacturing units and textile businesses, like those in Surat, Gujarat, have already installed rooftop solar panels to drastically reduce electricity costs as well as ensure a reliable and uninterrupted supply of power. MSMEs in the food processing industry have also invested in energy-efficient machinery, such as LED lighting and ovens that have been designed specifically to save energy and operational costs.
2. Implementing waste reduction, recycling, and circular economy practices will further minimize waste, reduce costs, in addition to creating entirely new revenue streams. MSMEs in the textile sector, like those in Tirupur, Tamil Nadu, have begun turning fabric waste into either new value added products or raw materials. Not only does this contribute to a circular economy, but also reduces landfill waste. Moreover, companies like Nerolac Paints are also actively involved in recycling plastic waste to produce packaging and coatings that align with the global trends and consumer preferences of sustainability and eco-friendly products.

3. Achieving green certifications and meticulously adhering to environmental standards can not only enhance marketability of certain products, but also open up entirely new business opportunities. MSMEs in the manufacturing sector, such as Steel Industries, are actively obtaining the ISO 14001 certification, which demonstrates their commitment to environmental management and helps them in gaining a competitive advantage in the global markets. Food processing companies also need to obtain organic certifications to receive access to premium markets.
4. Developing and marketing green products can meet the ever-evolving consumer demands and open up new market segments in domains like biodegradable packaging, garments.

2.3 Policy Landscape

The Indian government has recognized the importance of promoting sustainable practices among MSMEs. Various policies and initiatives have been introduced to support MSMEs in their green transition. These include financial incentives, subsidies, and technical assistance programs designed to help MSMEs adopt green technologies and practices. By leveraging these policy measures, MSMEs can overcome the challenges associated with the green transition and capitalize on the opportunities it presents. Government frameworks that counter the problems of funding include the The Emergency Credit Line Guaranteed Scheme (ECLGS), the Credit Guarantee Scheme for Subordinate Debt as well as the Self-Reliant India Fund.

The adoption of Industry 4.0 in Indian MSMEs encounters numerous challenges like securing adequate management support, ensuring compatibility of resources, and managing the costs of the transition. These obstacles are addressed through methodologies like the Quality Function Deployment (QFD).

Highlights of the various policies and schemes undertaken by the government to ensure sustainability and circularity in the MSME sector:

- The Small Industries Development Bank of India (SIDBI), has been established to function as a single window to meet the financial and developmental requirements of the MSME sector.
- As an accredited agency of the Green Climate Fund, it holds responsibility to streamline funds for green investments and support project management of institutions willing to augment environment friendly solutions in their operations.
- The bank has extensively supported the emerging market of Energy Service Companies (ESCO) through financial assistance substantiated by a risk sharing facility. Additionally, it extends financial assistance to MSMEs that desire to implement energy efficiency and conservation measures.
- A Sustainable Finance Scheme has also been established for energy efficient value chains through MSMEs along with a dedicated vertical to help MSMEs with high impact, technologically innovative climate change projects.
- The ‘Make in India’ along with the ‘Zero Defect & Zero Effect’ initiative of the government balances economic growth with sustainability and social inclusion as well as encourages MSMEs to constantly upgrade their quality standards in products and processes without damaging the environment.
- The Ministry of MSME and many other organizations and trade bodies have been assisting MSMEs to take benefits of schemes such as Technology Upgradation and Quality Certification’s ZED Certification Scheme.
- Scheme for Promoting Innovation, Rural Industry & Entrepreneurship (ASPIRE)
- Credit Linked Capital Subsidy for Technology Upgradation (CLCSS) and Design Clinics to impart Design Expertise to MSMEs have also been put in place.

CIRCULAR ECONOMY AND MSME

3.1 Understanding the Circular Economy

The circular economy is a model that challenges the traditional linear economy of "take-make-dispose." It emphasizes keeping resources in use for as long as possible, extracting maximum value, and then recovering and regenerating products and materials at the end of their service life. The circular economy offers a sustainable framework that MSMEs can adopt to minimize waste, reduce resource consumption, and improve efficiency. For SMEs, reduced waste, enhanced value creation, and a sustainable business framework capable of fostering long-term profitability is a relatively new concept. The circular economy thus represents a shift from a more linear supply chain to a rather circular one. The aim is twofold: to reduce waste in addition to promoting sustainability.

3.2 Circular Economy Principles for MSMEs

- **Design for Longevity:** MSMEs can enhance product durability, reducing waste by encouraging reuse and longer lifespans. For example, designing modular components that are easily repairable or upgradable can create extended product value. This also fosters customer trust, as consumers will appreciate sustainable, durable products.
- **Resource Efficiency:** MSMEs can adopt lean manufacturing techniques, ensuring that resources are used optimally. This involves reducing energy consumption, minimizing material waste, and adopting renewable energy where possible. Efficient resource use leads to cost savings and environmental benefits, improving competitiveness.
- **Recycling and Reuse:** By implementing product take-back schemes or using recycled materials, MSMEs can reduce dependency on virgin materials.
- For example, an MSME could collect old products to harvest parts and materials for new items, closing the material loop and reducing overall resource demand.
- **Innovation:** Circular economy principles encourage MSMEs to explore new business models, like "Product-as-a-Service," where products are leased rather than sold. This ensures that the company maintains ownership and responsibility for end-of-life management, promoting a circular approach. Innovation in product design, material usage, and waste management can also attract eco-conscious customers and create a unique market niche.
- **Digitalization:** Adopting digital technologies like IoT (Internet of Things) and big data analytics can enhance resource tracking and supply chain transparency. MSMEs can use these tools to monitor product lifecycles, predict maintenance needs, or identify recycling opportunities. Digital platforms can also support material sharing or exchange between businesses, fostering circularity in local economies.

3.3 Implementation Strategies

For MSMEs to successfully transition to a circular economy, a strategic approach is required. This includes:

- **Awareness and Education:** MSMEs need to be educated on the benefits of circular practices and the steps involved in implementing them.

Collaboration and Partnerships: Collaborating with industry peers, research institutions, and government agencies can provide MSMEs with the resources and support they need to adopt circular practices.

- **Investment in Technology:** Investing in technologies that enable resource efficiency, recycling, and product life extension is crucial for MSMEs to transition to a circular economy.
- **Dynamic Capabilities:** Dynamic capabilities refer to the ability of firms to adapt, integrate, and reconfigure internal and external competencies to address rapidly changing environments.
- **Customer Engagement:** The integration of customer engagement in circular economy practices has the potential to enhance the sustainability of MSMEs by fostering collaborative relationships that promote both, resource sharing and recycling.
- **Capacity Building:** Building skills and knowledge on circular and sustainable materials, helping them to reduce their C-footprint is essential.

COMPETITIVE EDGE THROUGH CIRCULARITY

4.1 Economic Benefits

Adopting circular principles can significantly enhance the competitiveness of MSMEs. Circular practices such as recycling, resource efficiency, and product life extension can lead to substantial cost savings. Research by the Ellen MacArthur Foundation suggests that companies adopting circular practices can reduce their material costs by up to 20%.

Studies have shown that circular practices not only reduce costs but also unlock new revenue streams. For instance, offering services such as repair, remanufacturing, and recycling can create value beyond the initial sale of a product. MSMEs that adopt circular practices can also differentiate themselves in the market, attracting eco-conscious customers and gaining a competitive advantage.

According to the Ministry of External Affairs of the Government of India, by 2030, the country will become the world's third-largest economy, accounting for 8.5% of the global GDP. Therefore, if the global circular economy reaches US$ 4.5 trillion as predicted, India could have a US$ 45 billion opportunity only by capturing the 1% of this market.

The major source of green finance is domestic (94%) with the central and state government budgets as the two primary contributors.

The total flow of funds towards climate mitigation measurements are categorized into three main sectors: Clean energy (42%), Energy efficiency (38%), and Clean transport (17%). Out of these, solar projects have attracted the biggest share of financial investments at 41% of the total finance provided to the clean energy sector.

The economic impact of implementing circular practices for MSMEs are articulated as follows:

- Incorporating circular practices in India could result in US$624 billion in savings across construction, food and agriculture, and mobility by 2050.
- Besides reducing up to 44% of India's GHG emissions in 2050, a circular economy path could generate benefits to the country of around US$ 624 billion, the equivalent of 30% of India's current GDP.
- According to a report by the world economic forum, up to 50 million jobs can be generated with a projected economic impact of $50 trillion.

4.2 Global Best Practices

Global examples demonstrate the potential of circular practices to drive business success. In Europe, several small businesses have successfully transitioned to circular models, achieving both economic and environmental benefits. These global best practices can serve as valuable models for Indian MSMEs looking to adopt circular economy principles.

One foundational framework for implementing circular economy principles is the BSI 8001 Standard, which provides organizations with guiding principles and a management framework for circular practices.

Although it has faced criticism for lacking comprehensive quantitative indicators, it remains the only global standard in this domain.

Additionally, the Platform for Accelerating the Circular Economy (PACE) has been considered instrumental in developing widely accepted metrics and parameters to accurately measure circularity. Moreover, it brings together big stakeholders such as the World Economic Forum as well as the United Nations Environment Programme.

The European Union has also made significant strides towards sustainability through its Circular Economy Action Plan, which is aimed at enhancing monitoring frameworks and developing indicators that interconnect circularity with climate neutrality.

CASE STUDIES: CIRCULAR BUSINESS MODELS (CBM)

5.1 Textile MSME in Gujarat: Closed-Loop Recycling System

A textile MSME in Gujarat has implemented a closed-loop recycling system, where waste fabric is converted into new yarn. This innovative approach has reduced the need for raw materials, lowering costs by 15%. The closed-loop system has also minimized waste, contributing to the company's sustainability goals.

Ravago Manufacturing India is a prime example of the same. The Ravago team offers their developed systems and technology to handle, clean, as well as process plastic scrap and in turn, they supply a quality consistent product mix to various customers.

They contribute to national development through closed-loop recycling that allows for the recycling of polymer waste and subsequently, putting it back into mainstream industrial applications. Nylon yarn to granules, rigid plastics like battery boxes, drums, crates, pales (PP,PE, LLDPE), soft plastics like films, sheets (PP,PE, PC), polymer waste from petrochemical plants, PE Wax, ABS, PC and PA lumps, and more are recycled at the facilities.

5.2 Electronics MSME in Bangalore: Product Life-Extension Services

An electronics MSME in Bangalore has integrated product life-extension services, such as repair and refurbishment, into their business model. These services now account for 30% of the company's revenue. By extending the life of their products, the company has not only reduced waste but also created a new revenue stream, enhancing its overall profitability. The global repair economy is currently worth USD 100 billion. MSMEs can easily capitalize on this space, and build the country’s electronic ecosystem.

These case studies highlight the potential of circular business models to drive business success. Key takeaways include the importance of innovation, resource efficiency, and collaboration in implementing circular practices. These lessons can be applied by other MSMEs to enhance their competitiveness and sustainability. This can only be achieved through the adoption of a multifaceted approach that incorporates factors like innovation, digitalization, sustainable practices, as well as strategic management, with enhancing competitiveness through the adoption of innovative practices, being at the forefront.

Moreover, digitalization also plays a pivotal role in enhancing the operational efficiency of MSMEs. The adoption of Information and Communication Technology (ICT) has become critical for MSMEs to gain a competitive edge in a globalized market. This is because the implementation of software applications can facilitate business ecosystem sustainability by streamlining operations and improving overall customer engagement. Lastly, the role of government policies and miscellaneous supporting initiatives can also not be overlooked. The Indian government has developed several schemes aimed at improving the competitiveness of Indian MSMEs, such as the "Lean Manufacturing Competitiveness for MSME" program, amongst others.

IMPACT OF CBAM ON INDIAN MSME SECTOR

6.1 Overview of CBAM

The Carbon Border Adjustment Mechanism (CBAM) is a regulation introduced by the European Union to prevent carbon leakage by taxing imported goods based on their carbon footprint. CBAM aims to incentivize greener production methods globally, creating a level playing field for companies that have already invested in reducing their carbon emissions.

The CBAM is operational as of October 1, 2023. Its main objective is to stop the leakage of carbon by pricing imported goods at the same level as domestically produced items. It attempts to promote cleaner industrial output in non-EU nations by placing a price on the carbon released during the manufacturing of specific carbon-intensive items that are imported into the EU.

Three techniques are specified in the CBAM's implementing regulation for determining embedded emissions in the transitional period. Only the EU method would be acceptable as of January 1, 2025.

In order to offset the carbon price that would have been paid if the items had been produced inside the EU, importers into the EU will have to buy CBAM certificates. Subject to the EU's recognition of the third country's carbon price, the non-EU producer may be able to deduct that cost from the CBAM obligation if they have previously paid a carbon price for producing the imported goods in that nation.

6.2 Challenges for Indian MSMEs

For Indian MSMEs, particularly those in energy-intensive sectors like steel, cement, and chemicals, CBAM presents significant challenges that the industry needs to overcome at the earliest. Complying with the stringent carbon emission norms set by the EU may require substantial investments in green technologies. This could strain the already limited financial resources of MSMEs.

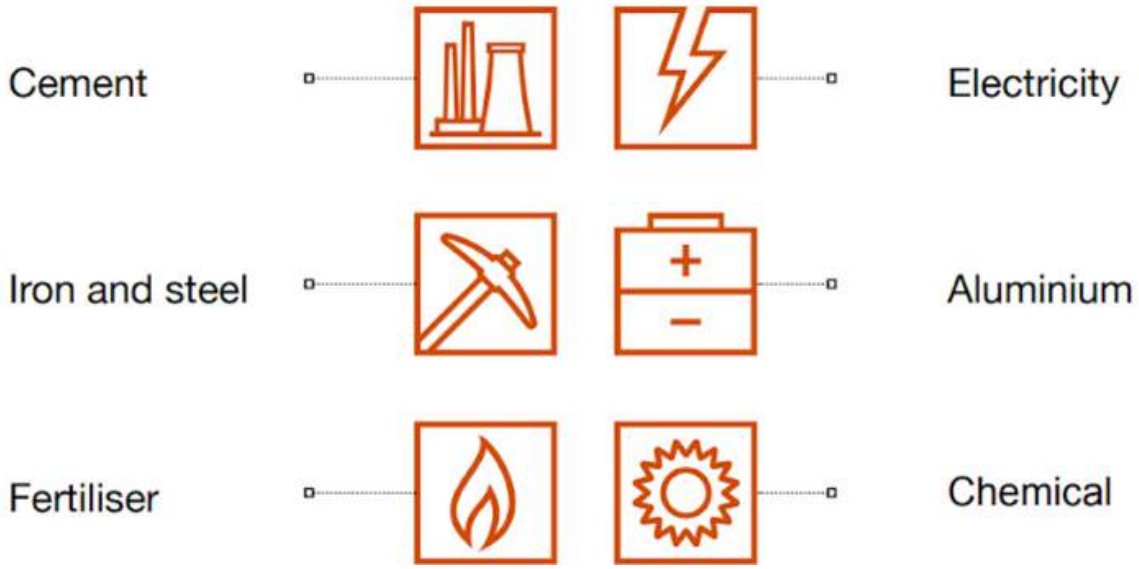
6.3 Opportunities in Compliance

Despite the challenges, CBAM also presents opportunities for Indian MSMEs. By adopting sustainable practices and reducing their carbon footprint, MSMEs can gain a competitive advantage in the European market. Compliance with CBAM can position Indian MSMEs as preferred suppliers to eco-conscious customers, opening up new export opportunities.

6.4 Strategic Recommendations

The transition to a circular economy and adherence to green principles are crucial for MSMEs to thrive in a rapidly changing global landscape. By adopting sustainable practices, MSMEs can enhance their competitiveness, reduce costs, and align with global sustainability trends. To prepare for CBAM, Indian MSMEs should:

- **Invest in Green Technologies:** Prioritize investments in technologies that reduce carbon emissions.
- **Leverage Government Support:** Utilize government incentives and programs aimed at supporting green transitions.
- **Collaborate with Industry Peers:** Engage in industry-wide collaborations to share resources and knowledge on complying with CBAM.



Sectors to which the CBAM is applicable

ACTIONABLE RECOMMENDATIONS

For MSMEs:

- Focus on innovation, recycling, remanufacturing, waste management, resource efficiency, and decarbonization to successfully transition to a circular economy.
- Collaborate for technology interventions at cluster level under various Government schemes such as for renewable energy, energy efficiency and industry automation to name a few.

For Policymakers:

- Continue to support MSMEs with financial incentives, technical assistance, and awareness programs to facilitate their green transition.
- Facilitate detailed sector / cluster level research studies and surveys. This will help chart a practical roadmap and encourage participation from grassroot enterprises.
- Encourage formulation of globally acceptable circular economy and sustainability standards and adoption of the same by the industry for successful transition and integration
- Establish handholding mechanism for facilitating MSMEs in assessing need gap analysis, and charting appropriate roadmap at cluster levels in terms of new skills, technologies and finance.

For Industry Stakeholders:

- Foster partnerships and knowledge-sharing initiatives to accelerate the adoption of circular practices among MSMEs.
- Sensitize opportunities to MSMEs in the new and emerging circular economy sectors and associated cost benefits tradeoffs.
- Advocate international partnerships and collaborations to facilitate infusion of latest technologies and innovations and integration in the global value chains vation.

As the global economy shifts towards sustainability, MSMEs have a unique opportunity to lead the way. By embracing green transition and circular economy principles, Indian MSMEs can contribute to a more resilient and sustainable economy, securing their place in the global market for years to come. This drastic transition can be shaped efficiently only by a meticulous combination of innovative technological advancements, favorable market dynamics, and policy frameworks that collectively positively influence their growth trajectory. Conclusively, the future for Indian MSMEs looks bright and promising, provided that the sector embraces digitalization, lean manufacturing, sustainable practices, supportive government policies, as well as innovation.

Therefore, by aligning their operations with these trends strategically, Indian MSMEs can enhance their competitiveness and contribute significantly to the economic growth of the country.

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