Green Job Creation through MSMEs in Rural and Semi-Urban India: Evidence from the Green Economy Transition

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Abstract

The shift to a green economy has seen Micro, Small and Medium Enterprises (MSMEs) create more chances as regards to sustainable development and job creation within rural and semi-urban India. Few studies however combine the creation of green employment that is sector-wise with the support of the government. This paper investigates the role in green employment played by MSMEs in the year 2010-2024, employing a descriptive and analytic research design with the basis of secondary sources such as the Ministry of MSME, RBI, NSSO, NITI Aayog, SIDBI and UN PAGE. The results indicate that the level of MSME employment rose by 80 million at the time of 2010 to 116 million at the time of 2024 and also its GDP contribution grew by 28.0 to 30.1. The greatest percentage of green employment was on renewable energy (40%), sustainable agriculture (35%), and waste management and recycling (25%). Access to finance (65%), awareness and training (55%), regulatory barriers (40%), technology limitation (35%), and access issues (30%) are among the major barriers. This research is significant in that it brings together sectoral green job opportunities, government subsidy, and critical challenges in an identical perspective. The results point to the necessity of greater green finance, technology integration, the development of skills, and the integration of policy to create more green jobs led by MSMEs and bring about faster transition to an inclusive and sustainable green economy in India. Keywords: MSMEs; Green Employment; Sustainable development; Green Entrepreneurship; Rural and Semi-Urban India.

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Introduction

The concept of sustainable development has gained great importance in the world as nations consider the development of the economy and conservation of the environment. The process of attaining green practices has been hastened by climate change, depleted resources, environmental

degradation, SDGs and the Paris Agreement commitments and green jobs have enhanced inclusive growth by providing renewable energy, sustainable agriculture, resource efficiency, waste management and recycling. MSMEs have significant role in employment, production, exports and GDP in India. They have a significant potential to facilitate sustainability by supporting green technologies, efficient utilization of resources, and job creation by their great representation in rural and semi-urban regions. The Government of India has launched PMEGP, ZED Certification, incentives on renewable-energy, and skill-development programmes to promote sustainable entrepreneurship. Nonetheless, economic issues, technology, and a lack of awareness, as well as regulatory hurdles and complexities, are still limiting green adoption. The SMS Journal of Entrepreneurship and Innovation noted the role of financial availability and company-specific assistance by Shaikh and Mandviwala (2025), whereas Mishra and Bhakay (2020) focused on the advantages of sustainable and green supply-chain models.

Although studies have been made on MSMEs and environmental sustainability few studies have combined the sector-wise green employment, support established by government as well as challenges encountered in implementation of the same in rural and semi-urban areas of India. The current study considers therefore the creation of green jobs through MSMEs in 2010-2024 on the basis of secondary data, analysed on the opportunities provided by the sector, government policies and NGOs barriers to MSME growth, and suggests policy recommendations to appropriate to promote inclusive and sustainable growth of MSMEs.

The concept of sustainable development has gained great importance in the world as nations consider the development of the economy and conservation of the environment. The process of attaining green practices has been hastened by climate change, depleted resources, environmental degradation, SDGs and the Paris Agreement commitments and green jobs have enhanced inclusive growth by providing renewable energy, sustainable agriculture, resource efficiency, waste management and recycling. MSMEs have significant role in employment, production, exports and GDP in India. They have a significant potential to facilitate sustainability by supporting green technologies, efficient utilization of resources, and job creation by their great representation in rural and semi-urban regions. The Government of India has launched PMEGP, ZED Certification, incentives on renewable-energy, and skill-development programmes to promote sustainable entrepreneurship. Nonetheless, economic issues, technology, and a lack of awareness, as well as regulatory hurdles and complexities, are still limiting green adoption. The SMS Journal of Entrepreneurship and Innovation noted the role of financial availability and company-specific assistance by Shaikh and Mandviwala (2025), whereas Mishra and Bhakay (2020) focused on the advantages of sustainable and green supply-chain models.

Literature Review

An increasing focus on sustainable development has led to a surge in studies on MSMEs as sources of green entrepreneurship, resource efficiency, and inclusive employment due to their labour intensity and location in rural and semi-urban settings. Nevertheless, the implementation of green technologies is related to finances, technological potential, institutional assistance, and entrepreneurial consciousness.

In the SMS Journal of Entrepreneurship and Innovation, Shaikh and Mandviwala (2025) pointed out the challenges MSMEs face in getting

formal institutional funding as well as the importance of financial inclusion and enterprise-targeted financing in ensuring sustainable growth. On the same note, Mishra and Bhakay (2020) have discovered that the application of Green Supply Chain Management enhances environmental performance, operational efficiency, and organisational sustainability based on sustainable procurement, cleaner production, and responsible logistics.

The nature of entrepreneurship in terms of development is also well laid down. Kalita and Bhuyan (2020) revealed that rural entrepreneurship and especially women entrepreneurship can help in supporting employment, diversification of income and local development whereas Singh and Kataria (2020) showed the models of social enterprises could achieve both economic, social and environmental goals. Kumar and Pathak (2017) also highlighted the necessary role of continuous skill enhancement, innovation and sustainability-focused managerial skills in entrepreneurial resiliency and green technology uptake.

Bigger studies list renewable energy, sustainable agriculture, waste management, circular economy and green manufacturing as new source of employment and environmental advancement. Government programs that boost the use of renewable energy, green finance, digitalization and sustainable production have also helped green enterprises to thrive. However, the economic factors, changes in technology, lack of environmental sensitivity, regulatory sophistication, and poor market connectivity still curtail the uptake of green by rural and semi-urban MSMEs.

On the whole, the literature affirms the potential of MSMEs in promoting sustainable development by engaging in green entrepreneurship, job creation and responsible production. Nonetheless only limited literature incorporates sector-wise green employment, governmental support, barriers to implementing the same, as well as the rural development in the same framework. This is where the current research lies.

Research Objectives

The purpose of the study is to explore how the MSMEs in rural and semi-urban India supports the development of green employment and sustainable growth. The targeted goals are to:

- Review the role of MSMEs to create green jobs in rural and semi-urban India.
- Textualize opportunities on green jobs in the sector using the activities of MSME.
- Evaluate the importance of government policies and support programmes in sustainable development of MSMEs and green entrepreneurship.
- Determine main financial, technological, institutional and regulatory obstacles to adoption of green practices by MSMEs.
- Suggest policy actions to enhance green jobs by developing environmentally sustainable MSME.

Research Methodology

Nature of the Study

This research will take a descriptive and analytical approach to address the problem of MSME-based green jobs and green development in rural and semi-urban training of India in terms of sectoral opportunities, both government and non-government support, and adoption obstacles.

Data Sources

The data in the study depends on secondary sources that are trustworthy such as the Ministry of MSME, MNRE, NITI Aayog, RBI, SIDBI, NSSO, ILO, UNEP, World Bank, government reports, policy documents, annual reports, and peer-reviewed studies.

Study period

The scope is 2010-2024 to examine the green employment, sustainable entrepreneurship, and policy support of MSMEs.

Analytical Framework

Data have been categorized according to some large areas of green-employment, such as renewable energy, sustainable agriculture, waste management and recycling, green manufacturing and green entrepreneurship. Key financial, technological, institutional and regulatory impediments, and government initiatives have also been investigated.

Methods of Analysis

The research uses descriptive, trend, percentage and comparative analysis. The indicators of employment and GDP were compared on an annual basis and employment growth was determined by:

Percentage Growth = [(2024 value − 2010 value) / 2010 value] × 100

Green employment and major barriers were categorized into appropriate sectoral and constraint category. The indicated schemes were compared in reference to reported reach, adoption or relevance indicators. Calculations, tabulation and graphical representation were done in Microsoft Excel. It is found in the analysis that broad patterns and policy implications are established without making causal relationships.

Basis of Calculation and Data Compilation

The secondary sources were summarized and contrasted as quantitative measures. MSME employment increased from 80 million in 2010 to 116 million in 2024, representing approximately 45% growth: [(116−80)/80] × 100. The percentages presented in Table 2 indicate the indicative synthesis of the green-employment shares in the sector by the author, whereas Table 3 shows the relative significance of the barriers mentioned in supporting literature. Table 4 contrasts the reported reach, adoption or relevance of government schemes of choice. Therefore, Tables 2 4 do not present primary-survey estimates or cause-effect measures, but rather descriptive, indicative evidence.

Tools Used

Data was compiled in Microsoft Excel, tabulated and calculated as percentage, graphs and descriptive analysis made. The results were buttressed by qualitative analysis of government reports and academic sources.

Analysis And Discussion

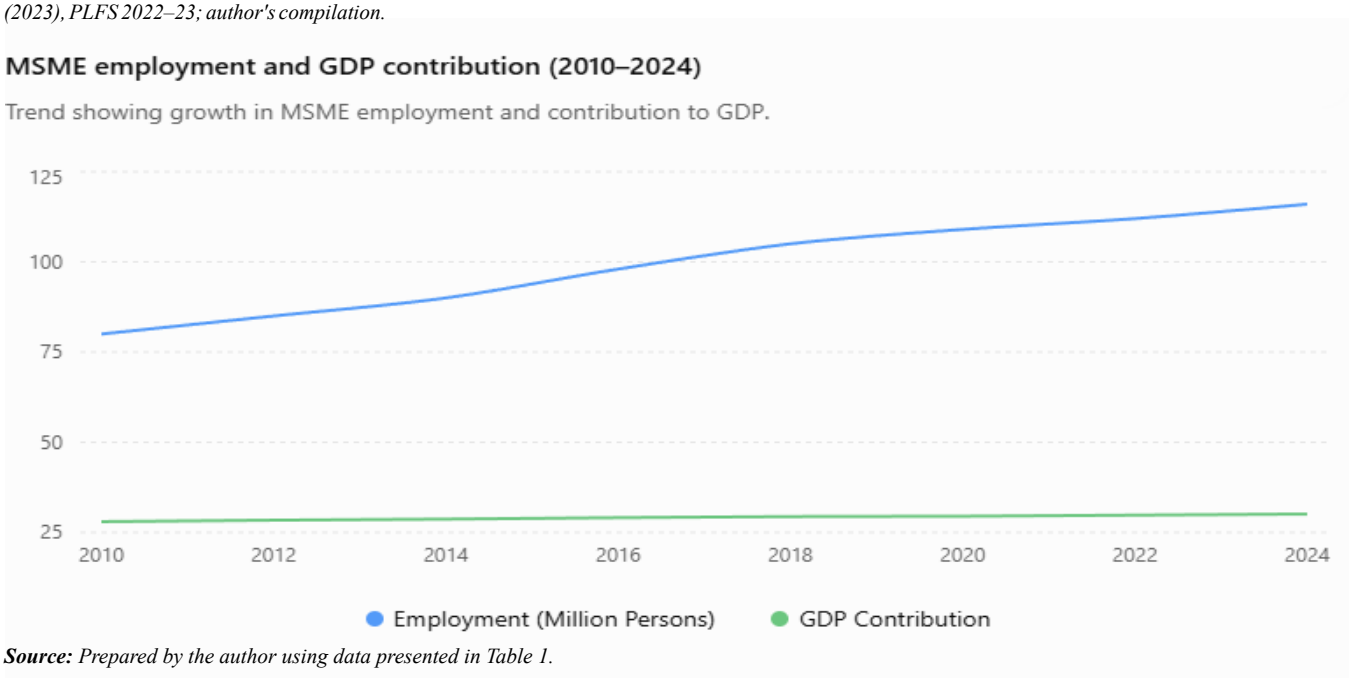
Growth of MSME Employment and Contribution to GDP (2010–2024)

Table 1 and Figure 1 give the increasing trend in the employment of MSME and their contribution to the GDP of India in the period 20102024. The trends in both indicators show a consistent steadily increasing growth, which underlines the increased role of MSMEs in providing employment and development of the economy.

Table 1: Growth of MSME Employment and Contribution to GDP in India (2010–2024)

Year	Employment Generated by MSMEs (Million Persons)	MSME Contribution to GDP (%)
2010	80	28.0
2012	85	28.4
2014	90	28.7
2016	98	29.1
2018	105	29.4
2020	109	29.5
2022	112	29.8
2024	116	30.1

Note: Figures are compiled from the secondary sources cited in the manuscript.
Source: Compiled from Ministry of MSME (2024), Annual Report 2023–24; RBI (2024), Report on Trend and Progress of Banking in India 2023–24; NSSO (2023), PLFS 2022–23; author's compilation.



Source: *Prepared by the author using data presented in Table 1.*

Figure 1: Trend in MSME Employment and GDP Contribution (2010–2024)

Employment of MSMEs in Egypt increased by almost 45% as 80 million grew to 116 million in 2010 and 2024 respectively and their contribution to GDP grew by nearly 30.1%. This underscores the increasing role that the sector plays in employment, output, inclusion in development and resilience to the economy. "PMEGP, CGTMSE Udyam Registration, ECLGS, make in India, Startup India and Atmanirbhar Bharat, together with digitalisation, e-commerce and access to formal-finance were aimed at facilitating the growth of enterprises, job creation and post-COVID recovery.

The results are similar to those of Sharma and Shetty (2021) about labour-intensive growth and rural livelihoods, and Siddiq and Shobana (2023) about entrepreneurship and inclusive development. A study carried out by Shaikh and Mandviwala (2025) in the SMS Journal of Entrepreneurship and Innovation also underscored the importance of the institutional finance in MSME growth and sustainability. The paper extrapolates this evidence with longitudinal analysis passed over the period 20102024. In rural and semi-urban areas, especially, MSMEs play a crucial role in the employment and regional development as their labour intensive and location based businesses provide jobs to local people and build capacity within the region. More use of technologies that are resource-efficient, renewable energy, and sustainable production, can contribute to a higher competitiveness, green jobs, and the transition of India to low-carbon production.

Discussion and Policy Implications

India continues to rely on the significance of MSMEs as an employment creator, regional development and economic resilience tool. They can be enhanced by continued support by cheap finance, digital infrastructure, technology, and entrepreneurship to contribute to GDP and employment. High green investment- in the technologies, skills, and sustainable practices, especially rural and semi-urban infrastructure can continue fueling green jobs and assist the SDGs of India.

Nevertheless, an increase in total MSME employment may not always accompany similar growth in green jobs. Green jobs are based on using renewable energy, eco-efficient technologies, sustainable production, and responsible business conduct. In this way, the increasing MSMEs are the base on which the green jobs will be created, and the sectoral transformation will decide how big they will become. To help retarget the traditional jobs into sustainable jobs in rural and semi-urban areas involves a sufficient financial support, technology, skills and access to markets. Green transition and MSME growth must hence be considered as two different aspects but interconnected components of sustainability development.

Sector-wise Contribution of MSMEs to Green Job Creation (2010–2024)

Figure 2 and Table 2 demonstrate the contribution of MSMEs to the creation of green jobs by sector in 20102024. The highest share (40%), sustainable energy, is succeeded by sustainable agriculture (35%), and waste management and recycling (25%).

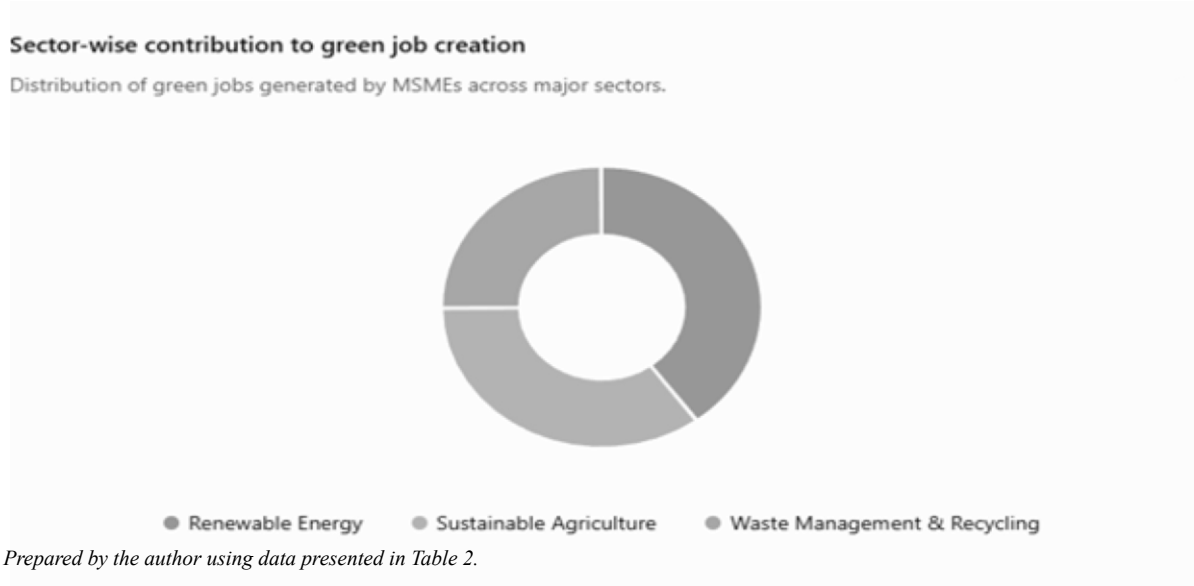
Table 2: Indicative Sector-wise Distribution of Green Employment Opportunities through MSMEs (2010–2024)

Sector	Indicative Share (%)
Renewable Energy	40
Sustainable Agriculture	35
Waste Management & Recycling	25

Note: *Percentages reflect the descriptive synthesis of secondary-source evidence by the author, and are not estimates based on a national, representative survey on a primary basis.*

It is estimated that approximately 8,000 small and medium enterprises were established since 2005 by the Ministry of MSME, based on the data on annual report 2023-24; NITI Aayog, based on the data on India pathway towards sustainable and green economic development; and SIDBI, based on the data on MSME ecosystem and sustainability report; author estimates and descriptive statistics.

Figure 2: Sector-wise Contribution to Green Job Creation



Source: *Prepared by the author using data presented in Table 2.*

The significant share of the green employment belongs to renewable energy, which indicates the transition of India towards clean and low-carbon development. Solar, wind and biomass, and related operations produce employment in the manufacturing, installation, maintenance and energy-services sectors, and MSMEs facilitate these operations by providing local supply chains and specialised products. The same was reported by Mishra and Bhakay (2020) in the SMS Journal of Entrepreneurship and Innovation, which discovered that sustainable production and green supply-chain practices can result in improved environmental performance and competitiveness. The green employment yielded by sustainable agriculture is 35% by the use of organic farming, bio-fertilisers, climate resistant techniques, water conservation and ecological processing. MSMEs promote rural jobs by providing services to farms, farm processing, and value addition, and marketing. In the SMS Journal of Entrepreneurship and Innovation, Kalita and Bhuyan (2020) further emphasized the contribution of rural entrepreneurship to job creation, income

diversification and growth of the region.

The 25 percent of green jobs comprise waste management and recycling by listing the recycling, composting, plastic recovery, e-waste management, and others. Its absence of competition is captured by lack of infrastructure, technology, investment, and market connections. Heightened environmental awareness, regulation, as well as demand and recycled products would strengthen more jobs. Singh and Kataria (2020) observed that the economic, social, and environmental goals are integrable to promote sustainable development of enterprises. Generally, sectoral variations are based on the disparity in policy support, technology, investment, and market demand, and waste management needs more institutional and infrastructure support to achieve its employment potential.

Discussion and Policy Implications

In providing renewable energy jobs, sustainable agriculture, and waste management, MSMEs play a significant role in the green economy in India. Nonetheless, the distribution of green-jobs in an uneven manner demonstrates that interventions tailored to specific sectors are necessary. It is possible to increase employment through expansion of green finance, technology transfer and innovation, recycling infrastructure and sustainable entrepreneurship, which can be facilitated by the issuance of enhanced institutional coordination.

Different policies are also needed by sectoral differences. Sustainable energy requires technology and investment and sustainable agriculture has a potential to increase rural jobs by processing, logistics, marketing, skills, certification, and integration of the value-chain. There is a need to upgrade infrastructure and technology, as well as collection and market connection in waste management and recycling. Therefore, sector-sensitive green-MSME policy is the most desirable than a blanket policy, to meet sector-specific financial, technological, skill-based, infrastructure and market demands.

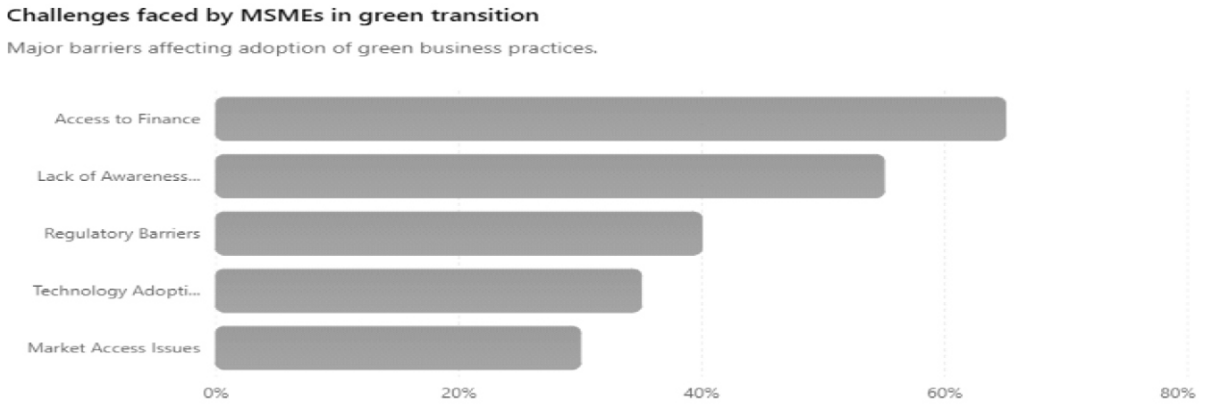
Challenges Faced by MSMEs in Green Transition (2010–2024)

The areas that need consideration to prevent the obstacles to sustainable MSME practices in 2010-2024 are in Table 3 and Figure 3. The greatest limitation was finance (65%), then the lack of awareness and training (55%), regulatory (40%) and technology constraint (35%), and access to the market (30%). These obstacles still remain in the way of the green transition of MSMEs.

Table 3: Indicative Relative Importance of Major Challenges in the Green Transition of MSMEs

Challenge	Indicative Relative Importance (%)
Access to Finance	65
Lack of Awareness & Training	55
Regulatory Barriers	40
Technology Adoption Constraints	35
Market Access Issues	30

Note: Percentages are an author-created comparative evaluation of the conspicuity of the barriers identified in the secondary sources looked through. They should not be interpreted as the proportion of MSMEs reporting each challenge.
Source: Data is collected by compiling the reports by Ministry of MSME (2024); SIDBI (2024); ILO (2022), World Employment and Social Outlook 2022: Greening with Jobs; author summary and descriptive statistics.



Source: Prepared by the author using data presented in Table 3.

Figure 3: Challenges in Green Transition of MSMEs

The primary obstacle of green MSME development is limited access to finance wherein investments in green technologies, energy-efficient equipment, pollution control, and sustainable production are limited due to limited collateral, high-cost, and complicated credit processes. Similar works regarding the significance of financial inclusion and business-specific funding were mentioned by Shaikh and Mandviwala (2025) in the SMS Journal of Entrepreneurship andinnovation. Knowledge about green technologies, environmental standards, waste minimization and governmental assistance is limited by awareness and skill gaps. In the SMS Journal of Entrepreneurship and Innovation, Kumar and Pathak (2017) highlighted the importance of sustainability-servient skills and ongoing entrepreneurial learning.

The difficulty in green adoption is also caused by regulatory, technological and market factors where complex instructions, certification, bureaucracy, inaccessible technology, and insufficiency of technical skills. The cost of certification, poor branding and digital marketing as well as poor integration into sustainable value chains also influence market competitiveness. According to Singh and Kataria (2020), supportive market ecosystems are necessary to realize economic, social, and environmental goals of sustainable businesses.

Discussion and Policy Implications

The obstacles are not independent; insufficient financial ability to implement technologies, lack of skills and ability to implement the idea of green investment, regulatory demands and restrictions make the compliance cost, and ineffective access to the market decreases the incentives to produce something sustainable. Hence, individual actions might not be very effective. This requires a concerted effort involving green finance, skills, and technology, regulatory support and market development efforts. MSME capabilities and market access can be enhanced through concessional finance, credit guarantees, green-skills programmes technology incentives, digital single-window systems, and green certification, in collaboration.

The results indicate that there is a necessity to solve both institutional constraints and supply-side constraints. Technical support should be used in enhancing finance and affordable technologies and market opportunities should be provided in training. A coherent policy framework can thus enhance competitiveness of the MSMEs, green jobs, environmental sustainability and inclusive growth.

5.4 Impact of Government Support Schemes on Green MSME Adoption (2010–2024)

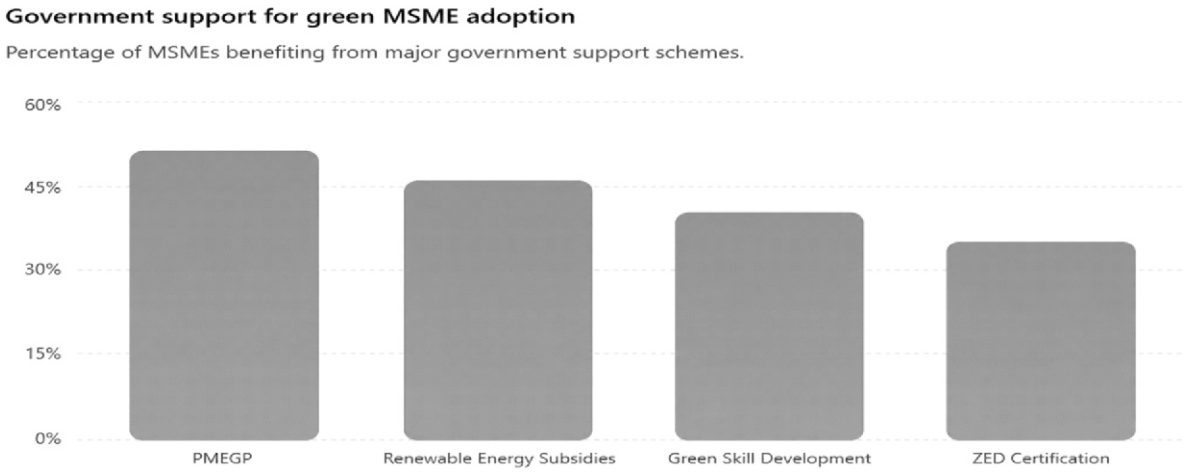
Table 4 and Figure 4 can point to the government assistance on sustainable practices of MSMEs in 2010-2024. The highest recorded reach was in PMEGP (50%), then Renewable Energy Subsidies (45%), then Green Skill Development Programmes (40%), and lastly was ZED Certification (35%). The variation means that there is a difference in the programme effectiveness depending on the objective and implementation.

Table 4: Indicative Comparative Reach/Adoption of Selected Government Support Schemes for Green MSMEs (2010–2024)

Government Scheme	Indicative Comparative Indicator (%)
PMEGP	50
Renewable Energy Subsidies	45
Green Skill Development Programmes	40
ZED Certification Scheme	35

Note: *Indicators are author-compiled based on available secondary data on programme reach, adoption or relevance. They are offered to be descriptively compared and not independent beneficiary rates or causal programme effects measured.*

Please, indicate the source from which the information was obtained: Please provide the source of information, at which the information was obtained (Ministry of MSME, 2024; NITI Aayog, 2023; SIDBI, 2024) or provide a compilation and descriptive analysis by the author.



Source: *Prepared by the author using data presented in Table 4.*

Figure 4: Government Support for Green MSMEs (2010–2024)

The greatest level of adoption is in the PMEGP, which indicates that it is more concerned with entrepreneurship, credit-based finance, and the creation of employment. It encourages the formation, proliferation, and long-term production of enterprises by reducing the entry barriers. This is in line with the Ministry of MSME (2024) and Shaikh and Mandviwala (2025) in SMS Journal of Entrepreneurship and Innovation noted the importance of institutional finance in MSME growth and sustenance. The renewable energy subsidies are second (45%), meaning that there are

financial incentives that must be provided to solar, biomass, and energy-saving technologies. This type of support will help minimize operating expenses and promote cleaner production. Mishra and Bhakay (2020) also demonstrated that sustainable production and green supply-chain result in greater efficiency and competitiveness.

Green Skill Development Programmes helped 40 percent of the MSMEs and enhanced their technical skills and understanding of renewable energy, waste disposal and efficiency of resource use. Kumar and Pathak (2017) emphasised the importance of sustainability-oriented skills and continuous learning for entrepreneurial resilience. ZED Certification had less adoption (35%), primarily due to financial, technical, and procedural factors. Streamlining the process of certification and enhancing awareness may stimulate more engagement.

Discussion and Policy Implications

The results show that the government program promotes the development of green MSME with finance, renewable energy, skills and sustainable manufacturing. Adoption differences point to policy needs to be more coordinated. One can stimulate green entrepreneurship and green employment by extending green credit and renewable-energy subsidies, new skills and training, and an improved institutional coordination. The schemes serve various purposes: finance eases the entry of investments, renewable-energy incentives are used to advance cleaner technologies, skills enhance human capital, and certification enhances the credibility and economy of resources.

Since it is a descriptive analysis, it fails to establish cause and effect relationships among individual schemes and green adoption. Instead, the schemes are seen to be applicable in the context of the overall policy. It can be even enhanced by involving finance, skills, technology, certification and market-support as a way of enhancing the role played by MSMEs in promoting SDGs and the green economic transition in India.

Research Findings

The researcher concludes that in the years 2010-2024 Micro, Small and Medium Enterprises (MSMEs) played an important role in providing employment, growth to the economy and green jobs in rural and semi-urban India. The growth in the economic importance of the sector was shown by the rise in the number of MSME employees, their GDP contribution, which grew to 30.1% with a corresponding growth in their numbers, increasing to 116 million in the year 2024. Renewable energy also recorded the highest proportion of green jobs at 40% and sustainable agriculture at 35 percent and waste management and recycling at 25 percent sector-wise. This shows how MSMEs are becoming increasingly important in assisting India to absorb towards a low-carbon and environmentally friendly economy.

But the green transition is still limited by the lack of finance, poor awareness and technical capacity, regulations, barriers to technology adoption and limited access to markets, especially by the rural and semi-urban enterprises. Sustainable business practices have been encouraged with the help of government programmes including PMEGP, Renewable Energy Subsidies, Green Skill Development Programmes and the ZED Certification Scheme. However, it requires more policy coordination, the availability of green finance, better technological support, and better institutional cooperation to tap into full MSME potential to make green employment, sustainable entrepreneurship, and a more inclusive economic development possible.

Policy Recommendations

Through the outcomes, it is suggested that the following steps be taken in order to increase the creation of green jobs via MSMEs in rural and semi-urban India:

- Offer simplified credit and interest relief and guarantee on MSME green investments.
- Advance industry-based education in renewable energy, sustainable agriculture and waste management and resource efficiency.
- Develop rural and semi-urban technology centres that can provide demonstrations, technical advice and cheap green technologies.
- Introduce online one window registration system, certification and the scheme application system.
- Promoting green products of MSMEs is to be taken to a higher level by encouraging MSMEs through government acquisition, online platforms, certification, and marketing in clusters.
- Customize investment, skills, technology, infrastructure and markets service to the particular requirements of renewable energy, sustainable agriculture, and waste-management MSMEs.
- Plan finance, dexterity, technology, certification and market-support program memes via a shared online platform.
- To enhance programme evaluation, regularly observe the green-tech adoption, use of renewable energy, waste minimization, green job creation process, and skill development.

Generally, green job creation should involve a strategy that is multi-faceted (via finance, skills, technology, regulatory facilitation and market access) to enable rural and semi-urban MSMEs to embrace sustainable business models and create decent local employment.

Conclusion

The research analysed the role of MSME in the creation of green jobs and sustainable development in rural and semi-urban India over the period of 2010-2024. Through the findings, renewable energy, sustainable agriculture as well as waste management are found to be the primary sources of the green employment, the maximum percentage goes to renewable energy. Nevertheless, small finance, lack of skills, complexity in regulations, lack of technology facilities and lack of market penetration still remains as the game much slower in going green. Sustainable development of MSMEs is aided by government initiatives like PMEGP, green-energy subsidies, Green Skill Development Programmes, and ZED Certification, but further better coordination, green finance, technology support and institutions need to be supported.

On the whole, there are great possibilities of MSMEs to promote green jobs, SDGs and inclusive development in India. Barriers can be overcome with the assistance of coordinated interventions of the government, financial institutions, industry and academia to ensure the transition of the sector to sustainable development is expedited.

Scope For Future Research

The study based on secondary data, provides a broad assessment of MSMEs' role in green employment and sustainable development in rural and semi-urban India. Further studies would employ mixed method or primary surveys to study green technologies and green practices adoption among enterprises on a large scale. The comparisons across states, sectors, and rural and

urban areas would be able to determine regional differences in green jobs. Future studies can investigate how digitalisation, green finance, as well as circular economy practices and ESG initiatives impact the sustainability and competitiveness of MSMEs. Evidence-based policymaking and knowledge of sustainable entrepreneurship in India would also be strengthened through longitudinal" econometric studies that would analyze government schemes and green policies.

Limitations of the Study

The study has certain limitations. First, it is all based on secondary data and therefore the results may be based on the availability and reliability of the information available. Second, it is not based on secondary data and sophisticated econometric tools that can be used to establish the causal relationship. Third, a general assessment of rural and semi-urban MSMEs fails to reflect on state, sector and enterprise level differences. Lastly, the analysis only examines the chosen sectors of green activities and governmental programs and it does not represent the entire gamut of green economic activities. In spite of these restrictions, the research gives valuable information on the topic of MSME-based green jobs and serves as a point of departure in future empirical and policy studies.

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