



Promoting Green Entrepreneurship in India: An Analysis of Government Initiatives

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Abstract:

Green entrepreneurship aligns economic objectives with environmental sustainability by emphasising eco-friendly practices, resource efficiency and environmental conservation. In India, rapid industrialisation, environmental degradation and climate change challenges render the promotion of green entrepreneurship essential for sustainable development. This study reviews government policies, financial schemes and institutional frameworks designed to support environmentally responsible start-ups in India. Through a qualitative analysis of secondary data (government reports, academic literature and industry publications), the effectiveness of these initiatives is evaluated and key barriers and opportunities in India's green entrepreneurship ecosystem are identified. The findings indicate that while government interventions provide a foundational support structure, significant impediments remain—including low awareness, restricted access to finance, limited technical expertise and infrastructural constraints. Policy recommendations advocate for integrated frameworks, capacity-building and multi-stakeholder collaboration to strengthen the green entrepreneurship ecosystem.

Keywords: *Green Entrepreneurship, Sustainable Development, Policy Initiatives, India, Eco-Innovation*

Introduction:

Green entrepreneurship refers to a business paradigm in which economic growth is pursued alongside environmental stewardship and social welfare. Unlike conventional enterprises that may focus solely on profit, green ventures emphasise sustainable production processes, optimisation of resource use, waste minimisation and energy efficiency (Schaltegger & Wagner, 2011). In the Indian context, environmental challenges such as air and water pollution, deforestation and climate change-driven disruptions create a compelling imperative for such sustainable

business models. The Indian government has introduced a range of schemes aimed at supporting green start-ups—through funding, incubation, capacity building and regulatory frameworks. Understanding the effectiveness of these interventions, as well as the systemic barriers and enabling factors, is essential to developing a robust green entrepreneurship ecosystem. This paper sets out to identify key government initiatives in India, evaluate their outcomes, explore challenges and opportunities, and propose actionable policy recommendations.

Literature Review:

The scholarly literature on green entrepreneurship emphasises that embedding sustainability into core business operations can generate dual value: economic return and ecological/social benefit (Schaltegger & Wagner, 2011). Hockerts and Wüstenhagen (2010) argued that government incentives—such as grants, tax reliefs and enabling regulatory regimes—play a crucial role in stimulating eco-innovation and sustainable ventures. In India, recent studies reveal that innovation hubs, public-private partnerships and policy frameworks have begun to foster eco-friendly enterprises (Agarwal & Agarwal, 2020). Nonetheless, researchers point to persistent challenges such as low awareness of schemes, limited technical capacity, and burdensome regulatory procedures (Sharma & Joshi, 2019; Singh, Mehta & Kumar, 2021). For example, Chandra and Kumar (2020) advocate for a holistic policy approach—one that integrates financial support, capacity-building initiatives and market promotion—to strengthen the growth and scalability of green entrepreneurship. Further, the broader frameworks in books such as *Sustainable Entrepreneurship: Business Success through Sustainability* (Bocken et al., 2013) and *Entrepreneurship and Sustainability: Business Opportunities for a Better World* (York & Venkataraman, 2018) provide conceptual foundations for eco-innovation, sustainable business strategy and the institutional architectures needed.

In the context of India, empirical data show that the renewable energy sector has grown rapidly. As of March 2025, India's installed renewable energy capacity (including biomass, waste-to-energy and waste-to-power) stood at approximately

220.09 GW, exhibiting a compound annual growth rate (CAGR) of approximately 19.0 % from FY2016 to FY2025. ([IBEF](#)) Moreover, India is ranked 4th globally in terms of renewable energy installed capacity, as of early 2025. These trends underscore the potential scope for green entrepreneurship, yet start-up-level evidence (such as the number of clean-tech start-ups) suggests significant scaling challenges remain. For instance, as of December 2023 there were over 6,600 cleantech start-ups (in green technology, renewable energy and waste-management) spread across 450+ districts in India. ([EQ Mag Pro](#)) This literature thus provides a backdrop for analysing how government initiatives target these ecosystem gaps and supports.

Research Objectives:

The specific objectives of this research are to:

1. Identify and analyse government initiatives that support green entrepreneurship in India.
2. Evaluate the effectiveness of these initiatives in promoting sustainable start-ups within the Indian context.
3. Examine the challenges and opportunities present in India's green entrepreneurship ecosystem.
4. Suggest actionable policy recommendations for strengthening the green start-up infrastructure and ecosystem.

Methodology:

A qualitative method based on secondary data evaluation is used in this study. The data sources include: (i) government reports, policy documents and scheme guidelines issued by Indian

ministries and agencies; (ii) peer-reviewed journal articles, books and industry publications; and (iii) analytical synthesis of the relevant literature to identify key success factors, barriers and opportunities. This method enables a comprehensive and systematic understanding of India's green entrepreneurship landscape, the role of government interventions and the areas requiring improved policy attention.

5. Government Initiatives Promoting Green Entrepreneurship in India:

1. Start-up India (2016 onwards)

Launched in 2016 by the Ministry of Commerce & Industry, Start-up India provides funding facilitation, tax exemptions and incubation support for new ventures, including those with green or sustainability-oriented business models. This initiative offers mentorship, networking and access to venture capital for eco-friendly enterprises.

2. National Clean Energy Fund (NCEF)

The NCEF finances projects promoting renewable energy, energy efficiency and clean technologies. Green entrepreneurs can obtain grants and low-interest loans to implement sustainable innovations (Ministry of New & Renewable Energy, 2022). The fund has supported various initiatives that align with green venture objectives.

3. MSME Support via Udyamimitra

Under the aegis of the Ministry of MSME, Udyamimitra provides credit facilitation, skill development and technology assistance for MSMEs. Eco-friendly MSMEs focusing on renewable energy, waste-management and sustainable-product manufacturing

stand to benefit from such programmes (Agarwal & Agarwal, 2020).

4. Atal Innovation Mission (AIM)

Operated by NITI Aayog, AIM supports innovation and entrepreneurship with a focus on sustainability. Green start-ups can utilise incubation centres, mentorship networks and funding platforms to develop eco-technological solutions (Government of India, 2020).

5. Additional Indirect Programmes

Additional initiatives supportive of the green entrepreneurship ecosystem include the National Biogas and Manure Management Program (NBMMP), the Solar Charkha Mission, and the Swachh Bharat Abhiyan (Clean India Mission). These provide indirect support by promoting renewable energy solutions, solar-powered micro-industries and sustainable waste-management systems.

Challenges in Green Entrepreneurship:

Despite the existence of these policies and schemes, a number of persistent challenges constrain the growth and scalability of green enterprises in India:

1. Awareness Deficit: Many entrepreneurs are insufficiently aware of the full range of government schemes available for green enterprise support, which limits uptake and utilisation of benefits.

2. Funding Barriers: Although financing mechanisms exist, complex application procedures, stringent eligibility criteria and delays hamper access for many potential green entrepreneurs.

3. Regulatory Bottlenecks: Environmental clearances, technology certifications and multiple approvals

create administrative delays and raise transaction costs for green start-ups.

4. **Technical Skill Gaps:** Implementation of eco-friendly technologies often requires specialised expertise and technical know-how, which many young entrepreneurs lack.
5. **Market Limitations:** While consumer awareness and demand for sustainable products are increasing, the market remains limited. Green ventures often face difficulties in achieving scale or pricing parity with conventional products.

For example, though over 39 % of climate-tech start-ups in India are led by women directors and approximately 49 % originate from tier-two or tier-three cities, the number of such enterprises remains small in absolute terms (DPIIT Secretary, Rajesh Kumar Singh). ([The Economic Times](#))

Opportunities for Green Entrepreneurs:

Despite the challenges, significant opportunities exist for green entrepreneurs in India:

1. **Growing Environmental Consciousness:** Awareness among consumers of environmental issues is increasing, leading to greater demand for eco-friendly products and services.
2. **Government Support Structures:** The policy ecosystem already provides funding, mentorship and incentive structures that green entrepreneurs can tap into.
3. **Technological Innovation:** Rapid advancements in renewable energy, waste-management, clean technologies and the circular economy offer new business models and value-creation

pathways. For example, India added approximately 23.83 GW of solar capacity in FY 2025, signalling infrastructure and market dynamism. ([IBEF](#))

4. **Global Market Potential:** Indian green ventures can access international markets that increasingly value sustainable goods and services, enabling export-oriented expansion.
5. **Collaborative Ecosystem:** A growing network of incubators, accelerators, industry-academia partnerships and knowledge hubs support entrepreneurship and scalability of green ventures.

Policy Recommendations:

To strengthen the green entrepreneurship ecosystem in India, the following policy strategies are recommended:

1. **Enhanced Awareness Campaigns:** The government should significantly increase outreach efforts—via digital platforms, regional workshops and incubation centres—to educate potential entrepreneurs about available green-entrepreneurship schemes.
2. **Simplified Access to Finance:** Funding procedures and application processes should be streamlined, eligibility criteria simplified, and turnaround times reduced to improve accessibility for start-ups.
3. **Regulatory Streamlining:** Environmental and technology clearances should be rationalised and fast-tracked for green enterprises, especially in renewable energy, waste-management and circular-economy domains.

4. **Capacity-Building Programmes:** The government and private sector should collaborate to provide training in renewable technologies, sustainable production practices and business-model development for green start-ups.
5. **Market-Development Incentives:** Mechanisms to boost consumer awareness of green products (e.g., certification labels, trade-show support, procurement mandates) should be introduced to expand demand and market size.
6. **Public-Private Partnerships:** Encourage collaboration among government agencies, corporates, academia and start-ups to share resources, technology platforms and market linkages for green entrepreneurship.
7. **Integration of Policy Measures:** Ministries covering industry, environment, MSMEs, energy and finance should coordinate and align their schemes to produce a cohesive and synergistic green-entrepreneurship framework, avoiding fragmentation.

Conclusions:

Green entrepreneurship plays a vital role in India's pursuit of sustainable development and economic growth. Government initiatives such as Start-up India, NCEF, AIM and MSME-oriented programmes have laid important foundation stones for supporting environmentally responsible enterprises. Nonetheless, persistent challenges—relating to funding access, regulatory complexity, technical expertise and market development—limit the full realisation of potential. Addressing these barriers through integrated policies,

skills development and stronger multi-stakeholder collaboration can foster a robust, sustainable and scalable green entrepreneurship ecosystem in India. By leveraging technological innovation and tapping global market opportunities, India can strengthen its position as a hub for environmentally responsible enterprises and contribute meaningfully to global sustainability goals.

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