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BARRIERS TO GREEN STARTUPS IN BANGLADESH

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Abstract

This study examines the barriers that constrain green startups in Bangladesh and explains why formal sustainability policies have not translated into accessible support for early-stage entrepreneurs. Using an exploratory mixed-methods design, the study combines a structured entrepreneur survey, interviews with green business founders, and secondary evidence from policy documents and academic literature. The findings indicate that green startups face four interconnected barriers: limited access to appropriate financing, weak startup-oriented institutional support, moderate confidence in intellectual property protection, and low market acceptance due to price-sensitive consumer behavior. This paper argues that the main problem is not a lack of policy but a policy-practice gap that prevents small ventures from using available instruments. It recommends targeted equipment finance, climate-focused incubation, stronger regulatory coordination, green product certification, and consumer awareness programs to improve the sustainability-oriented entrepreneurial ecosystem in Bangladesh.

Keywords: Green startups; sustainable entrepreneurship; Bangladesh; green finance; circular economy

Introduction

Sustainable entrepreneurship has become increasingly important for developing economies under pressure from economic growth, environmental degradation, and climate vulnerability. Bangladesh represents a particularly relevant context because its development progress has occurred alongside severe exposure to floods, cyclones, river erosion, waste accumulation, energy constraints, and resource inefficiency. Although Bangladesh contributes only a small share of global greenhouse gas emissions, its population and productive sectors remain highly vulnerable to climate-related shocks. This creates a strong development rationale for enterprises that integrate environmental solutions into commercially viable business models.

Green startups are important in this context because they can convert environmental

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problems into innovative opportunities. Ventures operating in waste management, sustainable packaging, energy efficiency, recycling, renewable energy, circular fashion, and resource recovery can support economic diversification while reducing ecological pressure. Unlike conventional enterprises that may treat sustainability as a compliance obligation, green startups often place environmental value at the center of their business model. They therefore have the potential to contribute to climate resilience, responsible consumption, employment creation, and local technological capability.

However, the emergence of green startups in Bangladesh remains uneven. Formal policies and financial instruments related to sustainable finance, waste management, circular economy, and environmental regulation have increased over time. The Bangladesh Bank Sustainable Finance Framework, green refinance schemes, the National 3R Strategy, the Solid Waste Management Rules 2021, and discussions on Extended Producer Responsibility show that sustainability has entered the national policy agenda (Bangladesh Bank - 2020; Ministry of Environment and Forests - 2010; World Bank - 2024). Yet the existence of these policies does not necessarily mean that small green enterprises can use them effectively. Early-stage entrepreneurs often lack collateral, administrative capacity, technical documentation, regulatory knowledge, and access to investors who understand green business risk.

This gap between policy availability and entrepreneurial accessibility forms the central concern of the study. Much of the existing discussion on sustainability in Bangladesh focuses on macro-level reform, export-oriented industries, green banking, and large manufacturing sectors. Less attention is given to the lived experience of small and emerging green startups that operate close to the market, face high uncertainty, and must educate consumers while also developing products. Their challenges are not limited to finance; they also include weak incubation support, fragmented supply chains, limited confidence in intellectual property, and cultural resistance to sustainable products that cost more than conventional alternatives.

The objective of this paper is to examine the financial, institutional, market, and cultural barriers affecting green startups in Bangladesh. The study contributes to the sustainable entrepreneurship literature by linking policy-level sustainability initiatives with micro-level entrepreneurial experience. It also provides practical implications for policymakers, incubators, financial institutions, universities, and ecosystem actors seeking to improve the growth conditions for green ventures.

Literature Review

Sustainable Entrepreneurship and Green Startups

Sustainable entrepreneurship refers to the creation and development of ventures that pursue economic value while addressing environmental and social problems. In contrast to traditional entrepreneurship, which often prioritizes market opportunity and financial return, sustainable entrepreneurship incorporates ecological responsibility into opportunity recognition, resource mobilization, production, and value delivery.

Green startups are a specific form of sustainable enterprise whose products, services, or operations directly reduce environmental harm. Their contribution is especially relevant in developing economies, where environmental problems are closely connected to infrastructure gaps, informal markets, and resource constraints.

In Bangladesh, green startups operate in a context shaped by both opportunity and constraint. The country has a large consumer base, a growing youth population, an expanding startup ecosystem, and increasing policy attention toward sustainability. At the same time, the market remains price-sensitive, formal financing for early-stage innovation is limited, and environmental awareness often does not translate into purchasing behavior. These conditions create a paradox. The need for green solutions is strong, but the market and institutional systems needed to scale them remain underdeveloped.

Green Finance and the Accessibility Problem

Finance is consistently identified as one of the most critical constraints for startups and small enterprises. Green startups face an additional financing challenge because their projects may require costly equipment, specialized technology, testing, certification, or longer payback periods. Even at the start, there tend to be higher start-up costs with the purchase of capital equipment and raw materials. In Bangladesh, policy instruments such as sustainable finance guidelines, refinance schemes, and the Green Transformation Fund indicate that green finance exists within the formal banking system (Bangladesh Bank, 2020). However, the availability of a financial instrument does not automatically ensure its accessibility for early-stage ventures.

Existing green finance mechanisms often fit better with established firms that have audited financial statements, collateral, regulatory documentation, and the ability to prepare technical reports such as energy audits or environmental assessments. Small green startups may not have the organizational capacity to meet these requirements. As a result, a policy-to-pipeline gap emerges: funds are available, but the entrepreneurs most in need of risk-tolerant capital cannot easily access them. This gap is also evident in broader discussions on climate finance, where financing systems often favor bankable, larger projects over small, innovative, and locally embedded solutions (World Economic Forum, 2025).

Regulatory, Institutional, and Intellectual Property Barriers

A supportive regulatory environment is essential to the growth of green entrepreneurship. Regulations can create demand for sustainable products, define environmental standards, encourage recycling, and reward compliance-oriented enterprises. Bangladesh has introduced important policies related to waste management and environmental responsibility. The National 3R Strategy emphasized the reduce, reuse, and recycle principles. At the same time, the Solid Waste Management Rules 2021 introduced more formal responsibilities for waste handling and provided a policy basis for producer responsibility (Ministry of Environment and Forests, 2010; World Bank, 2024).

Despite these developments, entrepreneurs may perceive the regulatory environment as unsupportive when policies are difficult to understand, inconsistently enforced, or not connected to startup-level services. Institutional fragmentation can also delay licensing, certification, registration, and access to government programs. For green startups, the issue is not simply the number of policies but the ease with which they can navigate them. Intellectual property protection is another concern. Startups that develop new materials, designs, recycling processes, or technology-enabled solutions need confidence that their innovations can be protected. Weak enforcement or lengthy registration procedures may discourage investment in research and development.

Incubation, Mentoring, and Capability Gaps

Incubators and accelerators can reduce startup failure by providing mentoring, training, networks, access to investors, and support for market validation. Green startups require even more specialized support because they often need to manage regulatory compliance, environmental impact measurement, sustainable supply chains, certification, and stakeholder education. General entrepreneurship programs may help with business plans or pitching, but they may not provide adequate guidance on circular business models, climate finance, life-cycle thinking, or environmental reporting.

The Bangladeshi startup ecosystem has expanded, but green-specific incubation remains limited. Social enterprise and general startup programs provide useful support, yet climate-oriented ventures often need mentors who understand both business viability and environmental performance. Without such support, early-stage founders may struggle to translate environmental ideas into scalable products and services. Capability gaps also affect access to finance because entrepreneurs who cannot produce credible documentation, impact metrics, or technical feasibility reports are less likely to be considered bankable by lenders or investors.

Circular Economy and Supply-Chain Constraints

Circular economy models attempt to keep materials in use through reuse, repair, recycling, and resource recovery. In Bangladesh, circular entrepreneurship is visible in waste management, textile recycling, composting, alternative materials, and packaging innovation. However, circular startups depend on supporting infrastructure. Waste-based ventures require reliable collection systems, sorting facilities, logistics, quality control, consumer acceptance, and downstream buyers. Where these systems are weak, startups must carry costs that are normally shared across a mature ecosystem.

The ready-made garment sector illustrates both opportunities and limitations. Textile waste and by-products create potential for recycling and upcycling, but entrepreneurs face inconsistent waste streams, fragmented collection channels, and limited access to processing technology. Similarly, municipal waste ventures encounter weak household-level segregation and low awareness of resource recovery. These barriers show that green startups cannot scale solely through individual effort; they require ecosystem coordination among municipalities, producers, consumers, financial institutions, and technology providers.

Consumer Demand and Cultural Acceptance

Consumer demand is a decisive factor in the survival of green startups. Research on green products in Bangladesh suggests that consumers may express positive attitudes toward environmental protection, but actual purchasing decisions are strongly affected by price, perceived quality, availability, and trust (Uddin, 2021). This attitude-behavior gap is common in developing markets where household budgets are constrained, and environmental benefits are less immediately visible than price differences.

Cultural acceptance also matters for ventures that convert waste into useful products. Even when recycled or upcycled goods meet functional requirements, consumers may associate waste-derived products with lower quality or social stigma. Therefore, green startups must not only sell products but also change meanings, habits, and expectations. Marketing strategies that connect green products with health, durability, national pride, and long-term savings may be more effective than messages that rely only on abstract environmental responsibility.

Research Gap and Objectives

Existing studies and policy discussions recognize the importance of sustainable entrepreneurship in Bangladesh, but they often emphasize large industries, green banking instruments, or national policy commitments. Less is known about how small and emerging green startups experience these systems in practice. The gap is particularly important because startups are expected to develop innovative environmental solutions, yet they operate with fewer resources than established firms. A policy instrument that appears strong at the national level may be ineffective for a startup if eligibility rules, documentation requirements, or implementation channels exclude early-stage ventures.

The present study addresses this research gap by investigating green entrepreneurship from the perspective of founders and ecosystem actors in Bangladesh. Specifically, the study aims to:

- Identify the major barriers faced by green startups in Bangladesh
- Examine entrepreneurs' perceptions of finance, policy and regulation, mentoring, intellectual property protection, and consumer demand;
- Link these micro-level experiences to broader institutional and market conditions; and
- Develop actionable policy and ecosystem recommendations to enhance support for sustainability-oriented early-stage ventures.

Figure 1 presents the conceptual framework that organizes the major barriers identified in the study and the ecosystem responses required to address them.

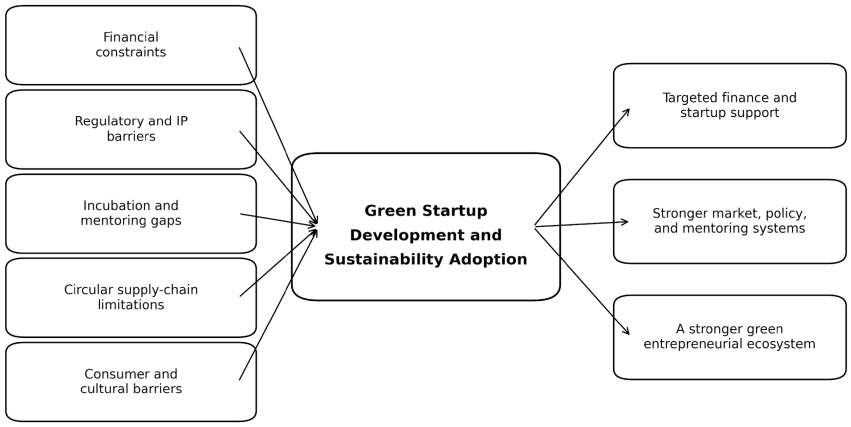


Figure 1. Conceptual framework of barriers to green startup development in Bangladesh.

Note. The framework synthesizes the main barrier clusters discussed in the literature review and findings sections.

Research Methodology

This study employs an exploratory mixed-methods design to examine the barriers constraining green startups in Bangladesh. The approach is well-suited to an emerging research area with limited prior empirical evidence, and the objective is to capture both measurable patterns of barriers and in-depth founder experiences within the local context.

The research integrates three complementary sources of evidence: a structured survey, semi-structured interviews, and secondary document analysis. The survey was designed to generate descriptive indicators of entrepreneurs' awareness, green practice adoption, and perceived barriers. Semi-structured interviews provided explanatory depth and contextual understanding behind these patterns. Secondary sources helped situate the primary data within the broader policy, regulatory, and market environment.

Structured Survey

The survey targeted founders, co-founders, and key team members of green startups, as well as selected ecosystem participants in Bangladesh. It included items on business age and sector, familiarity with green business practices, adoption of sustainable operations, perceptions of government support, access to finance, intellectual property protection, mentoring and incubation support, cultural alignment, and collaboration with other green organizations.

Due to the emerging nature of the green startup ecosystem, a purposive sampling approach combined with snowball referrals was used. While a reasonable number of responses were received, the usable response count remained relatively small and varied

across questions because of incomplete submissions. Consequently, all percentages and figures are interpreted as exploratory indicators rather than statistically generalizable estimates.

Semi-Structured Interviews

Semi-structured interviews were conducted with green startup founders to gain deeper insights. These included Md. Shahin Mia, Managing Director of Green Astha, the Chief Executive Officer of a waste management startup, and the founders of additional green ventures. The interviews explored key themes, including entrepreneurial motivation, operational and technological challenges, funding experiences, public awareness and consumer behavior, collaboration patterns, and engagement with policy institutions.

All interviews followed a flexible interview guide, were recorded with consent, and transcribed for analysis. The qualitative data from interviews were used to explain and elaborate on the survey findings, particularly regarding why specific barriers persist.

Secondary Data and Analysis

Secondary data were collected from official policy documents (e.g., Bangladesh Bank Sustainable Finance Policy, National 3R Strategy, Solid Waste Management Rules 2021), reports by the World Bank, UNDP, and other development organizations, as well as relevant academic literature.

The data were analyzed thematically. Survey responses were grouped into descriptive categories, while interview transcripts and secondary documents were coded around recurring themes including finance, regulation, and institutional support, intellectual property, mentoring, market demand, and circular infrastructure. Triangulation across the three data sources strengthened the validity of the findings by cross-verifying entrepreneurs' reported experiences against policy intentions and existing literature.

Findings

The findings indicate that green startups in Bangladesh function within a developing entrepreneurial ecosystem characterized by high awareness but limited structural maturity. Entrepreneurs demonstrate reasonable familiarity with green business concepts and have begun adopting selected sustainable practices. However, the overall depth of sustainability integration remains modest, with most respondents reporting that only a portion of their operations qualifies as fully sustainable. This suggests that awareness alone is insufficient for mature green entrepreneurship; startups require robust support in finance, mentoring, policy access, market development, and infrastructure.

Survey data and interview insights reveal several interconnected barriers. Access to appropriate finance emerged as the most significant constraint. Although various green finance schemes exist, early-stage green ventures face considerable difficulties in accessing them due to stringent collateral requirements, lack of technical documentation, and limited track records. Interviewees repeatedly highlighted the need for patient capital and targeted

equipment financing to scale operations.

Regulatory and institutional support was perceived as moderately weak, not primarily due to the absence of policies but because of implementation gaps, bureaucratic complexities, and limited startup-specific facilitation. Confidence in intellectual property protection was also only moderate, potentially discouraging deeper investment in innovation. Mentoring and incubation support tailored to green businesses was found to be insufficient, with many founders relying on general entrepreneurship programs that do not adequately address circular business models, certification, or climate-related challenges.

On the market side, consumer demand remains constrained by price sensitivity, limited awareness, and low willingness to pay premium prices for green products. Interview participants noted that startups must simultaneously educate consumers while operating their businesses, which increases costs and slows growth. Circular economy ventures additionally face weak supporting infrastructure, including inconsistent waste collection, sorting systems, and fragmented supply chains.

Overall, the results highlight a clear policy-practice gap. While Bangladesh has introduced several progressive policies and financial instruments for sustainability, these measures have not yet translated into accessible, practical support for early-stage green startups. The combination of financial, institutional, market, and infrastructural barriers continues to limit the emergence and scaling of green entrepreneurial ventures in the country.

Figure 2 summarizes selected descriptive survey indicators related to ecosystem constraints faced by green startups.

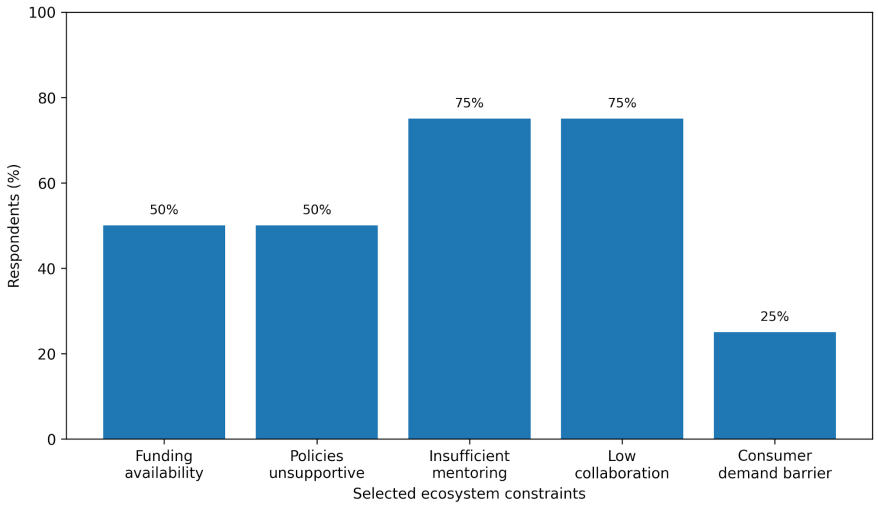


Figure 2. Selected ecosystem constraints reported by respondents (%).

Note. Percentages are descriptive and based on the exploratory survey used in this study.

Table 1. Profile of Survey Respondents and Green Practices (N=42)

Survey Area	Key Findings	Details
Business Maturity	The majority are early-stage ventures	<1 year: 31% 1–3 years: 40% 4–6 years: 21%
Awareness of Green Practices	High familiarity with green concepts	81% reported good to high familiarity
Adoption of Green Practices	Selective adoption	Green packaging: 74% Energy efficiency: 52% Renewable energy: 26%
Depth of Sustainability Integration	Limited depth	Less than 50% of operations are sustainable: 69%
Perceived Ecosystem Readiness	Mostly viewed as underdeveloped	Described as "developing": 76%

Note: Percentages are based on the exploratory survey and should be interpreted as indicative patterns.

Figure 3 complements Table 1 by showing the uneven adoption of selected green practices among respondents.

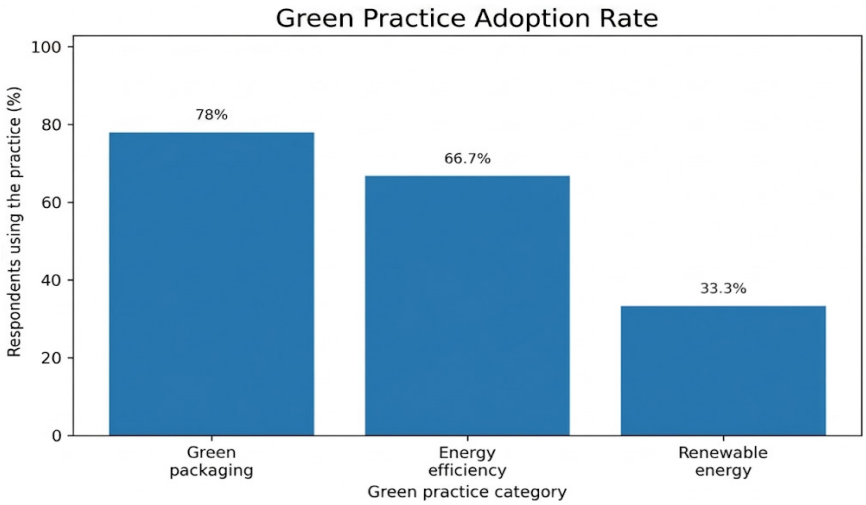


Figure 3. Adoption of selected green practices among respondents (%).

Note. Green packaging was the most widely reported practice, while renewable energy use remained relatively limited.

Financial and Investment Barriers

Access to finance emerged as the most pressing barrier, cited by 83% of survey respondents. Although Bangladesh has introduced several green finance initiatives —

notably the Bangladesh Bank's refinance schemes and the Green Transformation Fund (GTF) — a significant accessibility gap persists. Existing instruments are predominantly designed for established firms possessing collateral, audited financial statements, and comprehensive technical documentation, requirements that most early-stage green startups struggle to fulfill. (Source: Bangladesh Bank Sustainable Finance Policy (2020) | World Bank 2024)

Small green ventures typically require patient capital for equipment acquisition, machinery, product testing, certification, and initial working capital during the market validation phase. Traditional loan-based products are often unsuitable due to high interest rates, short repayment periods, and rigid eligibility criteria.

Md clearly illustrated this challenge. Shahin Mia, Managing Director of Green Astha, highlighted the prohibitive cost of imported machinery and testing equipment. His experience underscores a critical distinction: while general operating funds may support short-term survival, technical upgrading capital is essential for achieving competitiveness and scaling. Without targeted, startup-friendly mechanisms such as grants, subsidized leasing, or blended finance, even highly motivated green entrepreneurs remain severely constrained. (Source: UNCDF Green Finance Report | IEEFA Bangladesh Green Energy Finance 2025)

Regulatory and Institutional Gaps

Entrepreneurs expressed mixed to weak confidence in government support, despite the existence of progressive policies such as the National 3R Strategy and Solid Waste Management Rules 2021. Only 38% of respondents expressed confidence in the current government's facilitation measures for green startups. The core issue lies not in the absence of policies but in implementation gaps, bureaucratic complexity, institutional fragmentation, and the lack of startup-oriented delivery mechanisms. (Source: Ministry of Environment, Forest and Climate Change (2010) | World Bank EPR Report 2024)

Many founders found licensing, environmental certification, and compliance procedures excessively time-consuming and difficult to navigate without specialized guidance. Intellectual property (IP) protection was perceived as only moderately effective. This moderate confidence is particularly concerning for green startups, as many develop novel materials, recycling processes, or technology-enabled solutions. Weak perceived IP protection discourages meaningful investment in research and development. (Source: Bangladesh Patent Act, 2023)

Mentoring and Collaboration Gaps

The survey revealed a significant shortage of specialized mentoring and incubation support tailored to green businesses. While general entrepreneurship programs exist, they often fall short of addressing sector-specific needs, such as circular business model design, environmental certification, ESG reporting, access to climate finance, and sustainable supply chain development. This gap severely limits startups' ability to become investment-ready or policy-compliant.

Collaboration among green startups and broader ecosystem actors also remains limited. A substantial proportion of respondents reported little to no interaction with other green

organizations in the previous year. Such isolation is particularly detrimental in the green sector, where success depends heavily on networks for waste collection, technology sharing, regulatory learning, and joint market development.

Interviews, however, offered a nuanced perspective. While some founders preferred in-house solutions for core operations, others actively engaged in policy dialogues. This indicates that collaboration tends to be selective — pursued primarily when external partners offer clear strategic value. Overall, the lack of dedicated green-focused incubators and mentorship networks remains a critical capacity constraint for the ecosystem. (Source: UNDP Bangladesh Green Startup Initiative 2025)

Market and Consumer Barriers

Consumer demand remains a major challenge. Respondents indicated that market awareness of green startups is moderate and that societal values are not fully aligned with green entrepreneurship. Price sensitivity is particularly important. Consumers may support sustainability in principle but choose cheaper conventional products when the green alternative is more expensive or less familiar.

The waste management startup interview provides a clear example. A founder stated that public understanding of waste as a reusable resource remains limited (Green Astha, 2025). This barrier affects not only product sales but also the supply side of circular business models because waste segregation and collection depend on household and community behavior. The finding shows that green startups must operate as both businesses and educators, which increases their cost and slows market development.

Figure 4 presents two additional descriptive indicators that help explain the ecosystem's maturity: perceived ecosystem readiness and the extent to which social values align with green entrepreneurship.

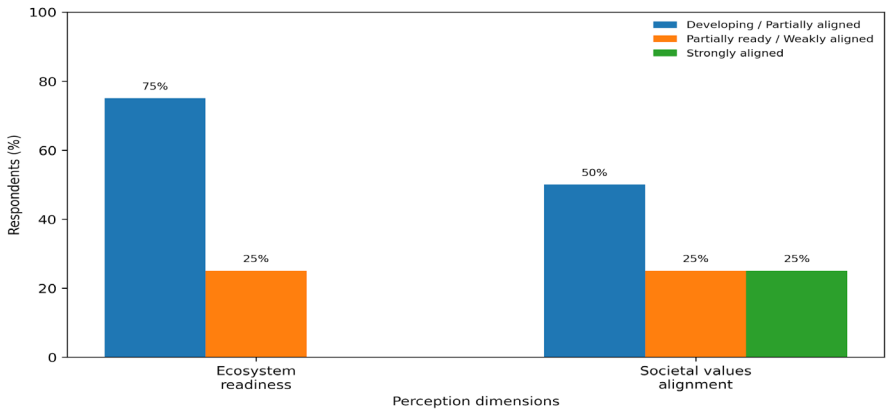


Figure 4. Perceived ecosystem readiness and social-value alignment (%).

Note. The responses suggest a developing ecosystem with only partial alignment between societal values and green entrepreneurship.

Table 2. Major Barriers and Startup-Level Implications

Barrier Category	Startup-Level Implication
Finance	Existing green finance is difficult for early-stage startups to access; equipment grants and blended finance are needed.
Policy and regulation	Progressive policies exist, but startups need clearer procedures, support with regulatory navigation, and targeted implementation.
Intellectual property	Moderate confidence in protection can discourage environmental research and product innovation.
Mentoring and incubation	General startup support is insufficient for ventures requiring ESG, certification, circularity, and climate-finance expertise.
Consumer demand	Price sensitivity and low awareness reduce willingness to purchase sustainable products.
Circular infrastructure	Weak collection, sorting, recycling, and logistics systems increase operating costs for circular ventures.

Note. The synthesis combines survey responses, interviews, and secondary evidence.

Discussion

The findings support the argument that Bangladesh's green startup ecosystem faces a policy-practice gap. National policies and financial instruments demonstrate that sustainability is formally recognized, but small startups do not experience these systems as sufficiently supportive. This gap is common in developing entrepreneurship ecosystems where institutional reforms exist on paper, but implementation capacity remains uneven. For green startups, the gap is particularly damaging because founders must manage both commercial uncertainty and environmental complexity.

Figure 5 summarizes the policy-practice gap identified in this study and shows how formal sustainability instruments are filtered through access bottlenecks before they reach startup-level outcomes.

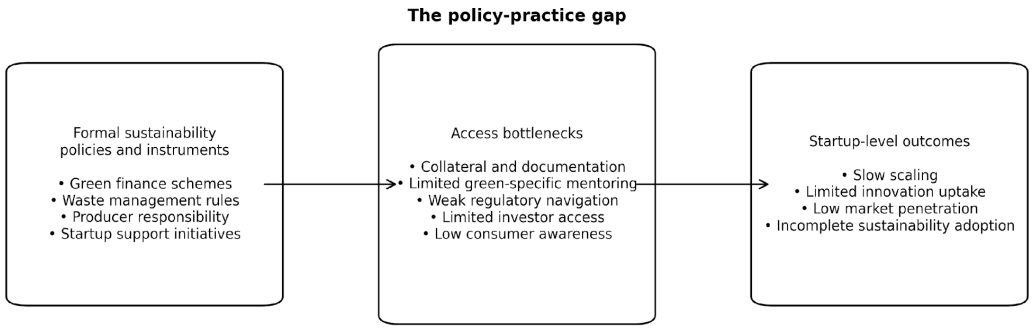


Figure 5. The policy-practice gap affecting green startups in Bangladesh.

Note. The figure synthesizes evidence from the literature, survey responses, and interviews.

The financial findings show that access design matters as much as fund availability. If green finance remains tied to collateral, formal documentation, export orientation, or large-project requirements, it will not reach many early-stage ventures. Green Astha's experience demonstrates that machinery and technical upgrades are central to competitiveness. A startup that cannot purchase or access appropriate equipment may be unable to produce at scale, meet quality expectations, or reduce costs. Therefore, the financing need is not limited to loans; it includes grants, leasing, guarantees, shared facilities, and blended instruments that reduce early-stage risk.

The regulatory findings also reveal an implementation problem. Policies such as waste management rules and producer responsibility frameworks can create opportunities for green startups, but only if entrepreneurs understand how to participate. A policy may create a market for recycling or sustainable packaging, yet startups may still fail if certification, licensing, enforcement, and procurement systems remain unclear. This suggests that regulatory support should be delivered through startup-facing institutions rather than solely through policy documents.

The mentoring gap is closely connected to both finance and regulation. Entrepreneurs who receive specialized incubation are more likely to prepare business models, impact claims, and documentation that investors and policymakers can evaluate. Without mentors who understand green technology and environmental compliance, founders may rely on informal learning. This slows growth and increases the risk of failure. Universities, industry associations, development partners, and incubators can fill this gap by developing programs focused on climate and circular-economy ventures.

Consumer behavior is another structural challenge. Green startups cannot rely solely on environmental concerns; they must create value propositions that consumers understand and trust. In Bangladesh, affordability remains central. Therefore, green products should be positioned not only as environmentally responsible but also as healthy, durable, locally innovative, and cost-effective over time. Public awareness campaigns can help, but market development also requires product standards and certification so that consumers can distinguish credible green products from vague sustainability claims.

Overall, the study suggests that a single intervention cannot strengthen green entrepreneurship. Finance, regulation, mentoring, infrastructure, and consumer demand are interdependent. A startup may receive funding but fail because consumers do not accept the product; it may have demand but fail because waste inputs are unreliable; it may develop innovation but hesitate to disclose it because intellectual property protection is weak. Ecosystem coordination is therefore essential.

Policy and Managerial Implications

The first implication is that Bangladesh needs green finance tailored to startups. A dedicated Green Startup Equipment Fund could provide grants, subsidized leasing, or matching finance for machinery, testing, renewable energy tools, recycling equipment, and sustainable production technology. Such a fund should have simpler application

requirements than conventional refinance schemes and should include technical support for preparing proposals.

Second, policymakers should create a green startup facilitation desk or single-window support mechanism. This unit could help entrepreneurs understand licensing, certification, environmental compliance, intellectual property registration, and access to finance. Its role should be practical rather than symbolic. The desk could also maintain a database of green startups, connect them with investors, and track barriers reported by founders.

Third, incubation programs should become more climate-specific. Universities and entrepreneurship centers can develop green business incubators that combine business model training with environmental science, circular economy design, impact measurement, and policy literacy. Students can be involved through internships, field projects, and venture-building programs. This would connect green business education with real entrepreneurial problems.

Fourth, consumer demand should be developed through credible certification and public communication. A national green product label could help consumers identify verified sustainable products. Awareness campaigns should avoid abstract messaging alone and should emphasize practical benefits such as health, quality, durability, waste reduction, and national innovation. The message "Made in Bangladesh, Made Green" could position green products as both environmentally responsible and locally valuable.

Finally, circular economy startups need infrastructure partnerships. Municipal authorities, producers, waste collectors, and startups should collaborate to improve household segregation, sorting, collection, and recycling logistics. Producer responsibility programs can create demand for startup services if implementation includes procurement opportunities for small ventures.

Theoretical Contribution

This study contributes to sustainable entrepreneurship research in three ways. First, it shifts attention from policy existence to policy usability. The findings show that a country may have green finance and environmental regulations, while startups still experience limited support. Second, it highlights the interaction between supply-side and demand-side barriers. Finance and policy constraints are important, but consumer acceptance and cultural perceptions also shape startup survival. Third, it adds evidence from Bangladesh, a climate-vulnerable developing economy where green entrepreneurship is relevant not only for business development but also for resilience and environmental governance.

Limitations and Future Research

The study has limitations. The survey sample was small and exploratory, and response counts varied across questions. Therefore, the percentages should not be interpreted as representative of all green startups in Bangladesh. The interview evidence is also limited to a few entrepreneurs, which provides depth but not broad sectoral coverage. In addition, the study relies partly on secondary sources, and some policy conditions may change over time.

Future research should use a larger sample across sectors such as renewable energy, sustainable packaging, recycling, agriculture, fashion, and waste management. Comparative studies across Dhaka, Chattogram, and rural regions would help explain geographic differences in ecosystem readiness. Quantitative studies could examine how access to funding, mentoring, consumer trust, and regulatory knowledge affect startup performance. Further research could also compare Bangladesh with other South Asian countries to identify transferable policy models for green entrepreneurship.

Conclusion

Green startups can play an important role in Bangladesh's transition toward a more resilient and sustainable economy. They offer practical solutions to waste, energy inefficiency, resource use, and environmental degradation while also creating entrepreneurial opportunities. However, this study shows that the growth of green startups is constrained by a combination of financial, institutional, market, and cultural barriers. The central challenge is not merely the absence of policy. Rather, the problem is that existing policy and finance mechanisms often do not reach early-stage entrepreneurs in a usable form.

The evidence indicates that entrepreneurs are aware of green practices and are willing to adopt sustainable operations. Still, they face difficulty in accessing appropriate finance, receiving specialized mentoring, protecting innovation, and building consumer demand. The interviews show that founders require targeted support, particularly in machinery, technology, public awareness, and circular-economy infrastructure. These findings suggest that green entrepreneurship policy must move beyond general sustainability commitments and focus on the practical needs of small ventures.

A stronger green startup ecosystem in Bangladesh requires coordinated action. Financial institutions should design instruments suitable for early-stage green ventures. Government agencies should simplify access to regulatory and intellectual property support. Universities and incubators should build climate-specific entrepreneurship programs. Consumers should be engaged through education, certification, and credible value propositions. If these interventions are aligned, green startups can contribute not only to environmental improvement but also to innovation, employment, and long-term economic resilience. Bangladesh's experience may also offer lessons for other developing economies attempting to connect entrepreneurship with sustainable development.

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