

# Sustainable Finance in Bharat: Innovation and Inclusion for the Business 5.0 Era

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**Abstract** - Sustainable Finance is no longer a choice but a necessity that aims to balance growth with responsibility. Sustainable finance means using money and investments in ways that also care for the environment, society and good governance (ESG). It helps to ensure that financial growth supports long term well being and does not harm the planet or people. As we are moving to Business 5.0 era, where technology and human-centric innovation work together to achieve growth, Sustainable finance in Bharat is emerging as a critical tool for economical and societal development. Innovation, in this context refers to the development and adoption of new financial instruments, digital platforms and solutions that improve efficiency, accessibility and the impact of finance. However, if inclusion is overlooked in the development of sustainable finance, the broader benefits to the society remain limited, undermining the purpose of these innovations. It also ensures that it reaches to all segments of society, including all marginalized groups, enabling them to participate effectively in the economy. This study will explore how innovation and inclusion together are reshaping sustainable finance in Bharat how these practices can support equitable long-term growth in the context of Business 5.0. This study adopts a mixed-methods approach, combining qualitative analysis of policy reports and literature with quantitative insights drawn from secondary data. Additionally, development organizations and government bodies can use the research to allocate resources and investments where innovation and inclusion have greatest impact. Overall, it highlights how sustainable finance practices that integrate innovation and inclusion can drive equitable and human-centric growth. Keywords: Sustainable Finance, Business 5.0, Innovation, Inclusion, ESG (Environmental, Social, Governance), Human-centric Growth.

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## 1. INTRODUCTION

Sustainable finance is a broad term it is a process and a goal to achieve, which is defined by the process of integrating Environmental, Social, and Governance (ESG) criteria into financial decisions to achieve long-term sustainability goals. When we talk about ESG, it is referred as the framework or criteria. It is used as a tool to measure the non-financial factors to know about the performance, risks and ethical impact.

ESG is the input and Sustainable Finance is the goal. When investors, banks, and governments all make financial decisions using this ESG information, it collectively becomes Sustainable Finance, which channels money toward a more sustainable economy. All these things matter because investors believe that organisations that score well on ESG factors are often better managed and face fewer long-term risks. Therefore, they are more likely to be successful overtime. In simpler terms, it focuses on funding projects that promote clean energy, social equality and responsible governance. The Reserve Bank of India (RBI) and the Government of India have launched several initiatives to make this vision a reality.

The Reserve Bank of India has introduced key measures such as Green Deposits Framework (2023) and Sustainable Finance Group (SFG). The Green Deposits Framework a new framework to offer green deposits to the customers, aiming at developing a Green Finance Ecosystem (GFS) in India. GFS refers to the financial system that supports and enables investments in environmentally sustainable projects and activities. The Sustainable Finance Group (SFG) is a unit within the Reserve Bank of India's (RBI) Department of Regulation, established in May 2021 to address climate-related financial risks and promote sustainable finance in India. Innovation is another key pillar of this movement of Sustainable Finance, which has played a transformative role in advancing sustainable finance. Fintech solutions such as Unified Payments Interface (UPI), Jan Dhan Aadhaar Mobile and Digital Public Infrastructure have improved accessibility, transparency and efficiency in financial systems.

The Reserve Bank of India's Financial Inclusion Index (2024) stood at 64.2, making a consistent improvement from 60.1 in 2023, driven by digital innovation and regulatory initiatives. However, Financial Inclusion alone does not guarantee sustainability. The challenge lies in ensuring that these financial innovations also advance environmental responsibility, social equality and ethical governance. This is where Sustainable Finance and Business 5.0 intersect.

The Business 5.0 Era represents a paradigm shift in how economies and enterprises operate. Building upon the automation and digital transformation of Industry 4.0, Business 5.0 emphasizes human-centric innovation, where technology is designed to serve human welfare, sustainability, and inclusivity (World Economic Forum, 2024). It envisions a future in which digital tools such as artificial intelligence (AI), blockchain, and big data are leveraged not merely for efficiency but for ethical and sustainable outcomes.

In this context, sustainable finance in Bharat becomes not just a financial agenda but a societal mission to align capital with compassion, innovation with inclusion, and growth with responsibility.

Innovation within sustainable finance refers to the creation and adaptation of new financial instruments, digital solutions, and policy mechanisms that enhance efficiency, transparency, and accessibility. Meanwhile, inclusion ensures that these innovations reach all segments of society urban and rural, male and female, privileged and marginalised, thus preventing the concentration of financial benefits among the few. Without inclusion, the promise of sustainable finance remains incomplete, as the very purpose of such systems is to create shared prosperity.

Sustainable Finance in Bharat is adapting to the principles of Business 5.0, focusing on innovation and inclusion to drive economic growth that is human-centric, sustainable, and resilient. It is reshaping how we build, work and grow by human and tech collaboration, agility and sustainability.

#### Business 5.0 and Its Implications

1. Human-Centric Approach – Focus on enriching human skills and not displacing them.
2. Resilience and Adaptability– Enabling industries to be strong in the face of economic and environmental risks.
3. Sustainability – Industrial growth is being achieved without threatening ecological balance.
4. Hyper-Personalisation – Producing customised goods in accordance with consumers' demands based on cutting-edge technology.

India is rapidly growing in the field of digitalisation, but there are a few concerns to be tackled:

- Digital Divide – Disparities in the utilisation of digital technology across regions.
- Regulatory Framework – Need for new accounting and financial rules to facilitate digital finance.
- Sustainable Finance – Green financing and sustainable investment policy requirements.

#### 1.1 THE PROBLEM:

Despite the rapid digital transformation and the government's focus on inclusive growth, the practical integration of sustainability, innovation, and inclusivity remains fragmented. There is still a disconnect between technological progress and equitable access to sustainable financial instruments.

Therefore, it lies in understanding how sustainable finance frameworks in India can simultaneously promote innovation and inclusivity, aligning with the nation's long-term developmental goals.

#### 1.2 SIGNIFICANCE OF THE STUDY:

This research provides insights into how the financial ecosystem can achieve both economic sustainability and social inclusiveness because it highlights how innovation-driven systems can empower inclusive growth while ensuring environmental and social responsibility. Sustainable finance is not only a path to economic resilience but also a means to access financial opportunities.

This research has several important implications.

4.1 First, it offers a theoretical contribution by exploring the connection between sustainable finance, innovation, and inclusion within the Business 5.0 framework, which is a little studied area in India.

4.2 Second, the study provides practical insights for regulators, such as the RBI and SEBI, financial institutions, development agencies, and fintech innovators. Aligning finance with inclusivity is especially vital in India's context. Encouraging ethical finance is not only the right thing to do; merging finance with an inclusive approach is key for scaling efforts.

4.3 Third, the research focuses on social aspects and emphasises human-centred growth. If innovations ignore marginalised communities, growth will remain unequal and sustainability

goals will suffer. Therefore, this research is timely in its aim to promote inclusive, tech enabled, and sustainable finance for Bharat.

## 2. REVIEW OF LITERATURE

The Reserve Bank of India (RBI, 2023) has highlighted sustainable finance as essential for economic growth to be climate resilient. The Report on Trend and Progress of Banking in India (2023) issued by RBI shows that green lending has increased 26% year-on-year, with a focus on lending for renewable energy and sustainable agriculture.

The Consultation Paper on ESG Disclosures (Securities and Exchange Board of India (SEBI), 2023) expands upon sustainability reporting standards to improve transparency and credibility issues of ESG investing with Business Responsibility and Sustainability Report (BRSR) and ESG ratings to further enhance transparency and minimise greenwashing risk.

Wandhe, P. (2025). Innovations and solutions for society 5.0. Wandhe (2025), explains the idea of Society 5.0 as a very important step from the focus on technology to the need for a "harmonious relationship between technology and human values." The essential argument makes the claim that new technologies must be intentionally aligned with ethical values and social needs, realigning the higher importance on sustainability, fairness and the well-being of people. The author argues that the role of technology in Society 5.0 is to be a direct tool to enable inclusivity and positive change in the world. The paper asserts that the future will be shaped by the use of innovative technologies such as blockchain, artificial intelligence (AI), the Internet of Things (IoT), and renewable energy as key enablers for complex global challenges, enabling societies to evolve, adapting our way of living to a more connected, efficient, and sustainable world. Achieving this aim, concludes Wandhe, is not only a question of technology but about working in groups and organizations crossing - governmental, corporate, community and individual governments. To successfully change this trajectory, we must achieve technological change, and together systematically and intentionally examine the social, ethical and environmental implications of adoption, leading to a participatory institutional basis for inclusive, equitable, and sustaining choices for all.

Harale, G. D., & Pawar, G. G. (Eds.). (2024). Viksit Bharat @ 2047: Challenges and opportunities, underscore

the fundamental role of effective financial management in realizing the vision of Viksit Bharat by 2047, which aims to transform India into a developed nation. The core argument is that sound financial strategies are non-negotiable for ensuring optimal resource allocation, which in turn fuels critical investments across key sectors, including infrastructure, education, and healthcare. This approach is essential for enhancing overall economic stability. The research highlights a holistic strategy that involves promoting financial literacy and deeply integrating technology into financial services. This digital and educational empowerment of citizens is seen as the primary pathway to achieve sustainable national growth, fostering innovation and entrepreneurship, and ultimately driving the nation toward its aspirations for prosperity and equity by the centennial of its independence.

Press Information Bureau [PIB], (2025), (2025, August 6). 67 and rising: India's financial inclusion gains momentum. Data released by the Reserve Bank of India indicates sustained progress in financial access across the nation. The RBI's Financial Inclusion Index (FI-Index) shows a significant rise, moving from 64.2 in March 2024 to 67.0 by March 2025. This upward movement is noted as the reflection of combined enhancements across three key dimensions: Access (35%), Usage (45%), and Quality (20%). The Growth is increased by 24.3% since 2021.

Ghobakhloo, M., Iranmanesh, M., Tseng, M. L., Grybauskas, A., Stefanini, A., & Amran, A. (2023). Industry/Business 5.0: reframing innovation toward human-centric sustainability. Ghobakhloo provides a systematic review of Industry 5.0 literature. It highlights the shift from Industry 4.0's focus on efficiency to Industry/Business 5.0's emphasis on human-centricity, resilience, and sustainability. The review combines technologies, design principles, and values that define Industry 5.0. It argues that this perspective creates a bridge between technological innovation and social and environmental goals. This makes it a valuable lens for research on inclusive sustainable innovation.

Kalkancı, Rahmani, and Toktay (2019), present inclusive innovation as a core aspect of sustainability. They build a theoretical framework for inclusive innovation, arguing that innovation processes need to be intentionally designed to involve marginalized groups. Without this focus, technological progress may lead to socially sustainable outcomes. They outline various mechanisms, such as product design, distribution, pricing, and

partnerships, that can help firms benefit resource-constrained populations. They emphasise that without these deliberate strategies, innovation can actually increase inequalities instead of reducing them. This paper is important for connecting social inclusion to innovation-driven sustainability.

Rame (2024) - Industry 5.0 and sustainability: empirical/roadmap perspectives Rame's 2024 overview brings together new research on Industry 5.0. It argues that adding human-centred design to industrial strategy can boost environmental performance and social results. The work highlights implications for firms, such as skills, governance, and investment needs. It also points out financing gaps. Specifically, sustainable finance tools must be customized to help with transitions to an inclusive Industry 5.0. This overview is helpful for understanding firm-level and market implications.

Hossain (2024) Digital finance as a way to grow green innovation (with inclusion concerns Hossain examines the relationship between digital finance (fintech), green innovation, and sustainable development. He finds that digital financial platforms can help expand green finance, including crowdfunding, green loans, and mobile payments for distributed renewable energy. They can also reach underserved users. However, gaps in digital access and poor governance can hinder inclusion. The paper suggests various policy actions: increase access to digital finance while protecting privacy and focusing on targeted outreach.

Kalkanci, Basak and Rahmani, Morvarid and Toktay, L. Beril, The Role of 'Inclusive Innovation' in Promoting Social Sustainability (2018). Working papers on green credit and digital inclusion (representative empirical evidence), mechanisms linking inclusion, finance, and welfare Recent working papers on SSRN empirically test mechanisms like green credit that mediate the effect of digital financial inclusion on welfare and sustainability outcomes. These studies offer useful methods, such as mediation analysis and cross-country panels, that show how to measure the financing channel linking inclusion to sustainability.

Reuters. (2024, March 1). India's Gujarat state civic body issues Asia's first certified green municipal bond. Reuters A Case: A clear example of local governance supporting sustainable finance goals is the Vadodara municipal green bond, Asia's first certified green municipal bond (Reuters, 2024). Certified by Climate Bonds, this investment shows

how a local government actively uses sustainable financial tools to provide crucial public environmental infrastructure, especially in water and wastewater projects. This case study serves as a strong, real-world example of how inclusive, sustainable financial practices can produce real results at the city level. It also demonstrates a practical application of the Business 5.0 principles within the Viksit Bharat mission.

A key part of India's effort for inclusive development is the wide growth of the Pradhan Mantri Jan-Dhan Yojana (PMJDY). The large increase in PMJDY accounts forms the basis of India's financial inclusion story (Department of Financial Services, 2025). These accounts are not just signs of access; they are established channels that allow modern, retail focused, sustainable finance products, like green deposits, micro-green loans, and climate resilient insurance, to reach vulnerable households. Therefore, the success of PMJDY lays the groundwork for the next stage of the Viksit Bharat mission. This mission aims to use digitised, widespread inclusion to provide localised, sustainable financial solutions in line with Business 5.0 principles.

### 3. RESEARCH METHODOLOGY

#### 3.1 Research Design

This study uses a mixed-methods design. It mainly relies on analysing secondary data, while also including focused qualitative case studies and optional expert interviews. The mixed approach is suitable because it addresses a research problem: understanding how innovation and inclusion shape sustainable finance in India. This requires measuring macro-level trends with numbers, such as green finance issuance, FI-Index, and UPI growth. It also needs interpreting policies, institutional behaviour, and design features. The literature highlights the importance of combining numerical indicators with context on organisations and policies to understand Business 5.0 dynamics. Therefore, the study aims to be descriptive-exploratory and explanatory.

#### Analytical framework

The research employs a framework that connects Innovation, Inclusion, and Sustainable Finance Outcomes. This framework fits within the Business 5.0 perspective, which focuses on human-centric technology use, as described by Ghobakhloo et al. and Wandhe. Based on ideas from Kalkanci, Rahmani, and Toktay, the framework sees inclusive innovation as a process

influenced by policy instruments and institutional capacity to achieve fair sustainability results.

Operationally:

Innovation indicators include: UPI transaction volumes, number of fintech firms, reach of Account Aggregator/ULI, and metrics from India Stack (NPCI, NITI Aayog).

Inclusion indicators consist of: the RBI Financial Inclusion Index (covering access, usage, and quality), PMJDY account penetration, gender distribution of accounts, and statistics on MSME credit access (RBI; Press Information Bureau, 2025).

Sustainability indicators feature: GSS+(green/social/sustainability/SLB), sovereign green bond figures, ESG assets under management, and the number of firms filing BRSR (Climate Bonds Initiative; SEBI, 2023).

The main analytical question focuses on whether and how innovation-related factors (X) impact sustainability outcomes (Y) and how inclusion (M) mediates or affects that relationship.

### 3.2 Research Framework

The study is organised around three related concepts based on the title:

1. Sustainable Finance - measured by financial indicators such as green bond issuance, ESG integration, green deposits, and policy frameworks.
2. Innovation - represented by variables like fintech growth, digital public infrastructure, UPI adoption, the Account Aggregator framework, and digital lending models.
3. Inclusion - assessed through India's Financial Inclusion Index, PMJDY account penetration, gender inclusion, and accessibility of financial products.

The theoretical foundation is based on the Business 5.0 framework suggested by the World Economic Forum (2023), which combines technological advancement (AI, digitalisation) with inclusive growth focused on people. The framework investigates how innovation (technology) and inclusion (human-centred design) together contribute to more sustainable finance.

### 3.3 Data Sources and collection

This study relies entirely on secondary data from trustworthy government, regulatory, and institutional databases to ensure authenticity and validity. Data

collected from 2018 to 2025 reflect the developments in financial innovation and sustainability since the pandemic.

Primary data sources include:

- Reserve Bank of India (RBI) — Financial Inclusion Index, Green Deposit Framework.
- Ministry of Finance & NITI Aayog — sustainable finance initiatives, digital infrastructure reports.
- Securities and Exchange Board of India (SEBI) — Business Responsibility and Sustainability Reporting (BRSR), ESG investment data.
- Climate Bonds Initiative (CBI) and Climate Policy Initiative (CPI) — reports on India's Sustainable Debt and Green Finance landscape.
- National Payments Corporation of India (NPCI) — digital innovation indicators like UPI and Account Aggregator statistics.
- Peer-reviewed journals — including IOSR Journal of Business and Management, Asian Journal of Finance & Innovation, and Journal of Sustainable Finance and Investment. This variety of datasets allows for triangulation, which helps reduce bias. As this is a study based on secondary data, the unit of analysis consists of India's financial sector initiatives, covering both public and private efforts in sustainable finance.

The sample frame includes:

- Government programs.
- Financial institutions (public and private banks that adopt green finance products).
- Fintech companies that contribute to inclusion and innovation (UPI, Account Aggregator ecosystem).

Data from 2018 to 2025 were chosen because this timeframe shows the acceleration of innovations and sustainability efforts aligned with Business 5.0 in Bharat.

1. Identification of Key Indicators Variables included:

- Financial Inclusion Index (FI-Index at 67.0 in 2025)
  - UPI monthly transaction volume (over 12 billion transactions).
  - PMJDY accounts (56.16 crore as of August 2025).
- These were gathered to quantify India's outcomes in innovation and inclusion.

2. Thematic Analysis Policy reports, RBI speeches, and institutional frameworks were qualitatively assessed to identify links between innovation, inclusion, and sustainability. Thematic categories like digital transformation, inclusive access, and green financial mechanisms were noted and compared across sources.

3. Comparative Interpretation Comparative analysis was employed to show how inclusion indicators changed alongside innovation and sustainable finance efforts. For

example, UPI's rapid growth correlated with a higher FI-Index and greater access to micro-credit, suggesting a positive connection between innovation and inclusion. Similarly, the increase in GSS+ debt issuance indicated that sustainability-focused finance has become key to India's growth model. All data were verified across multiple institutional reports for reliability and accuracy.

Key analytical aspects included:

- Innovation Index (Digital Reach) — using UPI, fintech growth, and digital public infrastructure indicators.
- Inclusion Index (Access & Equity) — using FI-Index, PMJDY, MSME financing, and gender access metrics.
- Sustainability Index (Finance for ESG Goals) — using green bond issuance, ESG disclosures, and BRSR adoption.
- These aspects were combined into a conceptual matrix linking financial innovation to inclusion, sustainability, and human-centric growth, aligned with Business 5.0.

### 3.4 Ethical Considerations

Since this research relies solely on publicly available and reliable secondary sources, proper acknowledgement and referencing have been maintained, and the study adheres to academic standards for ethical integrity and citation accuracy.

### 3.5 Limitations of the Study

While secondary data provide a broad view at the national level, there are limitations, including:

- Challenges in measuring qualitative aspects such as behavioural inclusivity or social perception.
- Despite these limitations, the triangulated approach using multiple sources offers a reliable overview of India's sustainable finance landscape in the context of Business 5.0.
- Dependence on Secondary Sources - This study relies on official data and published reports (RBI, SEBI, PIB, Reuters), which, while credible, may not provide the detailed insights of field-based research.
- Absence of Primary Data - The lack of primary surveys or interviews limits understanding of investor perceptions and stakeholder motivations.
- Temporal Constraints - Many sustainable finance initiatives (e.g., RBI's Green Deposits Framework, 2023) are recent, so their long-term socio-economic impact is still unknown.
- Conceptual Fluidity of Business 5.0 - Since Business 5.0 is an evolving concept, its measures of "human-centric sustainability" are just beginning to emerge, limiting empirical evaluation.

- Regional Variations - Differences in financial inclusion between urban and rural areas create uneven data patterns, which limits the ability to generalise findings nationwide.

### 3.6 Conceptual Model

Based on the reviewed literature and data interpretation, the conceptual model for this research can be visualised as follows:

#### Innovation (Digital Infrastructure + Fintech Growth)

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#### Inclusion (Access + Equity + Financial Literacy)

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#### Sustainable Finance Outcomes (ESG Integration + Green Instruments + Long-Term Impact)

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#### Business 5.0 Era (Human-Centric + Technology-Enabled Growth)

This model shows the change India is experiencing. It is shifting from technology-driven innovation to a human-centred approach in finance that supports sustainable development.

## 4. FINDINGS & CONCLUSIONS

### 4.1 FINDINGS

The analysis of secondary data, official reports, and recent research shows a complex change in India's financial system. This change combines innovation, inclusion, and sustainability to support the vision of a human-centred economy under Business 5.0.

1. Digital Financial Inclusion as the Backbone of Bharat's Financial Revolution
  - The Financial Inclusion Index (RBI, 2025) increased to 67.0, up from 64.2 in 2024. This reflects steady growth in access (35%), usage (45%), and quality (20%).
  - India now has more than 500 million Jan Dhan accounts, with over 55% owned by women. This demonstrates broader access to formal banking.
  - Digital platforms like UPI, Aadhaar-enabled Payment Systems, and PMJDY have changed how people access banking services, creating an affordable and real-time financial ecosystem.
2. Sustainable Finance Instruments Gaining Momentum

- The RBI's Green Deposits Framework (2023) provides clear guidelines for banks to invest savings in environmentally friendly projects.
  - The Vadodara Municipal Green Bond (Reuters, 2024), Asia's first certified municipal green bond, shows how local governments can effectively implement sustainability.
3. Regulatory Push for Transparency and ESG Accountability
    - SEBI's 2023 Consultation Paper on ESG Disclosures expanded the Business Responsibility and Sustainability Reporting (BRSR) framework to reduce greenwashing and increase transparency. .
  4. Technology and Innovation as Enablers of Business 5.0
    - Emerging technologies like AI, Blockchain, IoT, and Big Data are transforming governance, risk management, and financial service delivery.
    - Society 5.0 perspectives (Wandhe, 2025) stress the importance of balancing innovation with human welfare. They encourage finance to pursue social and environmental goals rather than just profits.

The establishment of the Sustainable Finance Group (SFG) within the RBI, along with coordination with NITI Aayog and SEBI, emphasizes the need for policy alignment in reaching the Viksit Bharat @ 2047 vision. India's path in sustainable finance combines digital innovation, ethical governance, and inclusive participation. It marks a shift from efficiency-driven growth (Industry 4.0) to value driven growth (Business 5.0). Yet, challenges such as rural financial literacy, varied ESG compliance, and climate risk assessment still exist.

## 4.2 CONCLUSION

The study finds that Sustainable Finance in Bharat is not a side aspect of economic development but its core foundation in the Business 5.0 era. This era brings together people, the planet, and progress. India's changing financial ecosystem shows that innovation reaches its true potential only when it benefits those who are excluded. This idea was strongly expressed by Shri Swaminathan J., Deputy Governor of the Reserve Bank of India (2025), during his speech on "Inclusive Innovation and Financial Resilience." "Inclusion is innovation's highest purpose. A financial system that does not touch every life cannot truly call itself modern." These words show that without empathy leads to

inequality but innovation focused with inclusion leads to shared prosperity. From UPI's universal access to the climate impact of green bonds, to AI-driven governance, the Indian model illustrates how to combine technology with trust, capital with compassion, and progress with purpose. As the nation moves toward Viksit Bharat @ 2047, sustainable finance must not be just a regulatory focus but a shared moral duty. This ensures that growth is green, inclusive, and ready for the future. India's experience shows that Business 5.0 is not about replacing humans with machines but about empowering people through technology. It ensures that every rupee invested has a conscience and that every innovation promotes inclusion. Looking forward, the key challenge for policymakers and institutions will be to ensure that these innovations are inclusive.

## 5. IMPLICATIONS OF THE STUDY

1. Theoretical Implications This study strengthens the link between inclusive innovation and sustainable finance and highlights the Business 5.0 approach as a new economic philosophy. It adds to sustainability literature by placing India's financial reforms within a human-centred innovation model. It also shows how digital transformation acts as both a driver and a sign of inclusive growth.
2. Practical Implications Financial institutions can adopt ESG-linked credit models to assess long-term environmental and social effects. Policymakers can push for programs that enhance financial and digital literacy in rural areas to reduce knowledge gaps. FinTech companies should develop ethical AI-based solutions to improve risk governance, reduce fraud, and ensure fair access to financial services.
3. Policy Implications A National Sustainable Finance Taxonomy should be established to align India's green finance with global standards. The government should expand incentives like tax exemptions for ESG-compliant businesses and priority lending for renewable projects. Public-private partnerships should aim to improve access to climate finance for micro and small enterprises, ensuring that sustainability reaches local economies.

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