

**FINANCIAL LITERACY AND SUSTAINABLE FINANCE IN INDIA: EVIDENCE
FROM THE BANKING SECTOR**

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ABSTRACT

This study explores how financial literacy can support the growth of sustainable finance in today's rapidly changing financial environment. It highlights the role of financial literacy in helping individuals and financial institutions better understand and incorporate environmental, social, and governance (ESG) factors into financial decision-making. Based on a descriptive and analytical review of secondary data from regulatory and institutional sources, with a focus on the Indian banking sector, the study examines current practices related to sustainable finance and climate risk management. The analysis suggests that although awareness of sustainability issues is gradually increasing, significant gaps remain in governance, ESG integration, and institutional readiness. Strengthening financial literacy through targeted policy measures and capacity-building initiatives is therefore essential to encourage responsible financial behavior and support the transition towards sustainable finance.

Keywords: Financial Literacy, Sustainable Finance, Indian Banking Sector, Environmental, Social and Governance (ESG), Climate Risk, Financial Regulation

Introduction

Financial literacy encompasses the knowledge, skills, and attitudes required to make informed financial decisions effectively (Lusardi & Messy, 2023). Sustainable finance refers to financial decisions and investments that take environmental, social, and governance (ESG) factors into consideration in addition to financial returns (Broom, 2022). This study delves into the relationship between sustainable finance and financial literacy, highlighting the crucial role that financial literacy plays in advancing sustainability in financial decision-making.

Financial literacy is the foundational knowledge and understanding required to navigate the complex world of personal and public finance effectively (Lusardi, 2019). It encompasses the ability to comprehend financial concepts, including budgeting, saving, investing, debt management, and comprehending financial products. A financially literate individual possesses the skills to make informed decisions about spending, saving, and investing, considering short-term needs and long-term goals. This literacy empowers individuals to decipher financial documents, assess risks, and grasp the implications of their financial choices. It is an essential tool for achieving financial stability, managing resources wisely, and making decisions that align with one's financial well-being and future aspirations (Lone & Bhat, 2022).

Sustainable finance, often referred to as responsible finance or sustainable investing, embodies a financial approach that integrates environmental, social, and governance (ESG) considerations into investment decisions and strategies (de Souza Barbosa et al., 2023). The essence of sustainable finance lies in striking a balance between generating financial returns and fostering positive impacts on the environment and society (Naifar & Elsayed, 2023). Investors and financial institutions consciously analyze the environmental consequences, social implications, and governance practices associated with their investments, aiming to support ventures that contribute to a sustainable, low-carbon, and socially responsible future (Yucel et al., 2023). This approach reflects a paradigm shift in finance, aligning investments with sustainable principles and values to address pressing global challenges, including climate change, social inequality, and ethical corporate conduct. Sustainable finance is a catalyst for transformative change, directing capital towards businesses and projects that prioritize not only profits but also the well-being of people and the planet.

The relevance of sustainable finance stems from the urgent need to address critical global challenges, including climate change, social inequalities, environmental degradation, and ethical business conduct (Yucel et al., 2023).

Literature Review

Financial literacy has emerged as a critical determinant of individuals' and institutions' financial decision-making capacity in an increasingly complex and sustainability-oriented financial system. Lusardi and Mitchell (2014) define financial literacy as the ability to understand fundamental financial concepts such as risk diversification, interest compounding, and inflation, which directly influence saving and investment behavior. Empirical evidence consistently shows that financially literate individuals exhibit superior financial planning,

improved risk assessment, and long-term wealth accumulation (Lusardi, 2019). In recent years, the scope of financial literacy has expanded beyond traditional financial competence to include awareness of ethical finance, sustainability considerations, and responsible investment practices (Lusardi & Messy, 2023).

Sustainable finance represents a paradigm shift in financial markets by integrating environmental, social, and governance (ESG) factors into investment and financing decisions. According to Broom (2022), sustainable finance seeks to align capital allocation with long-term environmental protection, social equity, and sound governance while maintaining financial stability. Studies by Friede et al. (2015) provide strong empirical evidence that ESG integration does not undermine financial performance; rather, it often enhances risk-adjusted returns and firm resilience. Similarly, Naifar and Elsayed (2023) find that firms with strong ESG performance tend to experience lower volatility and improved market valuation, highlighting the financial relevance of sustainability-oriented decision-making.

The linkage between financial literacy and sustainable finance has gained increasing scholarly attention. Financial literacy plays a pivotal role in enabling investors and consumers to understand ESG disclosures, sustainability ratings, and green financial products. Clark et al. (2015) argue that informed investors are more capable of incorporating long-term sustainability risks such as climate change and social inequality into portfolio decisions. Supporting this view, Gambetti and Giusberti (2021) demonstrate that individuals with higher financial knowledge show stronger preferences for sustainable investment instruments, including green bonds and ESG-based mutual funds. This suggests that financial literacy acts as a behavioral catalyst, translating sustainability awareness into concrete financial actions.

Moreover, financial literacy contributes to sustainable finance by fostering a long-term orientation in financial planning. Lone and Bhat (2022) emphasize that financially literate individuals are more likely to prioritize intergenerational wealth preservation, ethical consumption, and socially responsible investment choices. Such behavior aligns closely with the objectives of sustainable finance, which emphasize long-term value creation over short-term profit maximization. In the absence of adequate financial literacy, however, investors may misinterpret ESG information or remain hesitant to adopt sustainable financial products due to perceived complexity or risk (Grohmann et al., 2018).

Policy-driven financial education initiatives further strengthen the relationship between financial literacy and sustainable finance. The OECD (2020) highlights that integrating sustainability and ESG concepts into financial education frameworks enhances individuals' ability to participate effectively in sustainable financial markets. Regulatory measures mandating ESG disclosures and transparency also increase the demand for financial literacy, as investors require adequate knowledge to evaluate sustainability-related information (Bongini et al., 2019). Countries with stronger financial education systems have shown higher adoption of sustainable financial instruments, reinforcing the role of financial literacy as an enabler of sustainable development.

Despite the growing body of literature, empirical studies explicitly examining financial literacy as a catalyst for sustainable finance remain limited, particularly in emerging economies. Existing research often treats financial literacy and sustainable finance as parallel

constructs rather than interlinked mechanisms. This gap underscores the need for further empirical investigation into how financial literacy influences ESG-oriented investment behavior, sustainable financial planning, and responsible capital allocation. Addressing this gap is essential for designing effective policy interventions and educational programs that promote sustainable finance through enhanced financial literacy.

Research Gap

Existing literature largely treats financial literacy and sustainable finance as separate domains. While studies examine financial literacy in improving financial behavior and sustainable finance through ESG integration, limited research explains how financial literacy directly influences sustainable finance outcomes, particularly in emerging economies like India. This study addresses this gap by linking financial literacy with sustainable finance practices.

Objectives of the Study

1. To examine the role of financial literacy in promoting sustainable finance.
2. To analyze the relationship between financial literacy and ESG-oriented financial decision-making.
3. To assess the status of sustainable finance and climate risk management in Indian scheduled commercial banks.

Research Methodology

The study adopts a descriptive research design based on secondary data. The analysis draws upon published reports and official documents of the Reserve Bank of India (RBI), World Bank Group, and its institutions, such as the International Finance Corporation (IFC), particularly those related to sustainable finance, climate risk, and ESG practices. In addition, policy reports and guidelines on sustainable finance and financial literacy were reviewed to support the conceptual analysis. The study relies on qualitative interpretation and synthesis of existing literature and institutional reports to examine the relationship between financial literacy and sustainable finance. No statistical or econometric tools were used, as the study is conceptual and policy-oriented in nature.

Importance of Sustainable Finance and Institutional Support Mechanisms

Sustainable finance plays a critical role in aligning financial systems with long-term economic stability, environmental protection, and social well-being by integrating environmental, social, and governance (ESG) considerations into financial decision-making (Fried et al., 2015; Broom, 2022). By incorporating sustainability-related risks and opportunities, sustainable finance enables investors and financial institutions to improve risk management, enhance resilience to climate-related shocks, and support responsible corporate behaviour (Naifar & Elsayed, 2023). The growing relevance of sustainable finance is driven by increasing climate risks, social inequalities, and the need for financial systems that support sustainable development goals (Yucel et al., 2023).

Recognising this importance, global financial institutions have introduced several initiatives to strengthen sustainable finance frameworks. The World Bank Group has promoted sustainable finance through the Global Program on Sustainability (GPS), which focuses on improving data availability on natural capital, ecosystem services, and sustainability risks to support informed policy and financial decisions (World Bank, 2023). Under this initiative, the Sovereign ESG Data Portal provides investors and policymakers with access to standardised ESG and natural capital data, facilitating better assessment of sustainability risks at the sovereign level (World Bank, 2021).

In addition, the World Bank's Climate Support Facility supports countries in developing climate-resilient recovery strategies, climate-informed macroeconomic models, and long-term decarbonisation pathways (World Bank, 2021). Complementing these efforts, the International Finance Corporation (IFC) promotes private sector participation in sustainable finance through initiatives such as EDGE (Excellence in Design for Greater Efficiencies), which encourages resource-efficient construction and facilitates investment in green buildings (International Finance Corporation, 2022). Furthermore, the Joint Capital Markets Program (J-CAP) aims to strengthen sustainable capital markets and green bond frameworks in emerging economies by providing technical assistance and supporting market development (World Bank & International Finance Corporation, 2021).

While these institutional initiatives strengthen the sustainable finance ecosystem, their effective utilisation depends significantly on the level of financial literacy among policymakers, financial institutions, and investors. Financial literacy enables stakeholders to interpret ESG information, assess sustainability-related risks, and make informed decisions regarding sustainable financial instruments (OECD, 2020; Lusardi & Messy, 2023). Therefore, institutional support mechanisms and financial literacy together form a complementary foundation for advancing sustainable finance and achieving long-term financial stability.

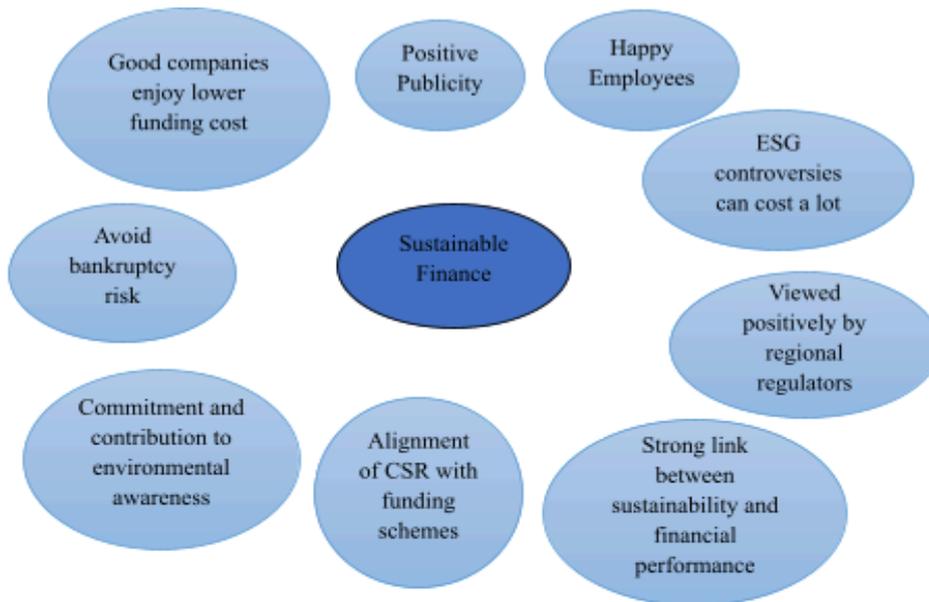


Figure 1: Importance of Sustainable Finance

Environmental, Social, and Governance (ESG)

ESG represents a comprehensive framework used to evaluate the sustainability and ethical impact of organizations and investment decisions. The environmental component focuses on issues such as climate change, carbon emissions, resource efficiency, and environmental conservation. The social dimension addresses factors including labor practices, human rights, consumer protection, and community engagement, while governance relates to corporate leadership, transparency, accountability, and ethical business conduct. Integrating ESG considerations into financial decision-making enables investors and financial institutions to assess long-term risks and opportunities beyond traditional financial metrics. A sound understanding of ESG components is essential for promoting sustainable finance, as it supports responsible investment choices, enhances risk management, and aligns financial activities with broader environmental and social objectives.

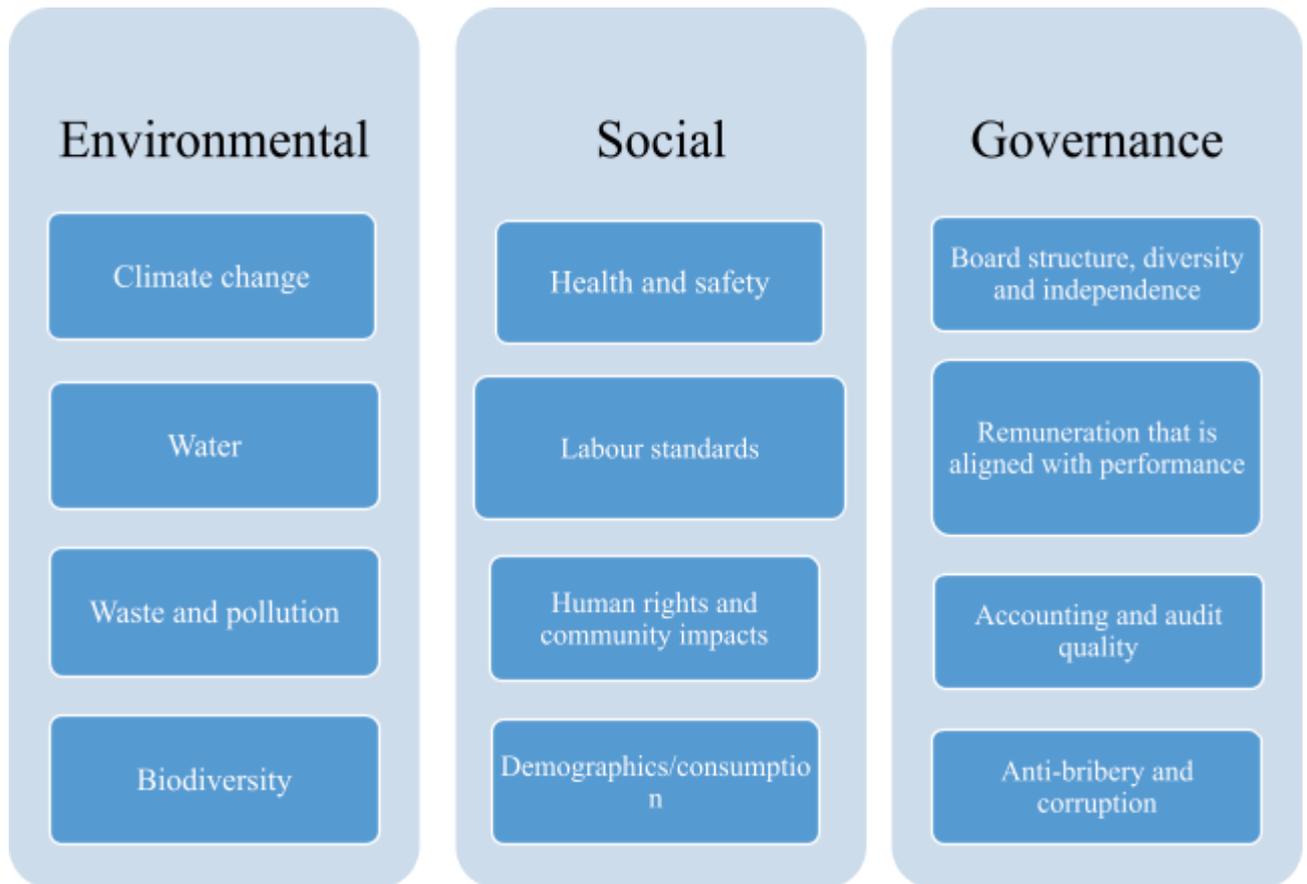


Figure 2: ESG Components

Status of Sustainable Finance and Climate Risk in Leading Scheduled Commercial Banks in India

Policy Context on Climate Risk and Sustainable Finance (RBI, 2025)

Recent policy discourse by the Reserve Bank of India highlights the growing systemic importance of climate risk and sustainable finance within the financial sector. According to the RBI Bulletin (2025), climate-related extreme weather events have resulted in global economic losses of nearly USD 2 trillion during the period 2014–2023, with losses of approximately USD 451 billion recorded in 2022 and 2023 alone. These figures underline the increasing financial vulnerabilities posed by climate change and the urgency of integrating climate risk considerations into financial decision-making.

The RBI Bulletin further notes that achieving sustainable and green infrastructure development requires substantial financial resources. Global estimates indicate that annual investments of USD 3 trillion to USD 5 trillion will be required until 2050 to support the transition towards sustainable and climate-resilient infrastructure. Despite this significant requirement, the report highlights that less than 1.5 per cent of global assets under management are currently aligned with the goals of the Paris Agreement, and the global

climate finance gap exceeds USD 2.5 trillion per year. This persistent gap underscores the critical role of financial institutions in mobilizing capital towards sustainable investments.

The report emphasizes that climate risk and sustainable finance must move from the periphery to the core of financial policymaking. It stresses the need for a supportive ecosystem involving regulatory guidance, risk management frameworks, and enhanced institutional capacity to enable the financial system to effectively channel funds towards green and sustainable projects. The RBI's policy stance reflects a growing recognition that climate risk poses both financial stability challenges and investment opportunities, requiring banks and financial institutions to strengthen governance structures, improve risk assessment mechanisms, and develop expertise in sustainable finance.

The Sustainable Finance Group (SFG) of the Reserve Bank of India's (RBI) Department of Regulation (DoR) conducted a survey in January 2022 to evaluate the state of climate risk and sustainable finance in major scheduled commercial banks. According to the comments, while banks have started to take action in the area of climate risk and sustainable financing, more work has to be done in this area.

1. Key Observations from the Survey:

<i>Board-level engagement and responsibility:</i>	Inadequate board involvement exists in climate risk and sustainable finance. It was unclear who would be in charge of projects pertaining to sustainability and climate risk in nearly one-third of the institutions polled. In addition, a small number of banks have included Key Performance Indicators (KPIs) pertaining to environmental, social, and governance (ESG), sustainability, and climate risk into their senior management performance evaluations.
<i>Strategy:</i>	The majority of banks lacked a distinct vertical or business unit dedicated to sustainability and ESG-related projects. Few banks have a plan in place for integrating climate change risks into their current risk management framework, growing their sustainable financing portfolio, and integrating ESG principles into their daily operations.
<i>Risk management:</i>	The majority of the banks surveyed felt that climate-related financial risks posed a serious threat to their business and that they understood how urgent the issue was. The primary sources of climate-related risks were thought to be physical and transitional concerns. When assessing credit offers beyond a specific threshold, some banks take into account social and governance factors in addition to climate and environmental hazards. A few banks are also trying to figure

	out how much of their loan and investment portfolio is vulnerable to these kinds of threats.
<i>Climate-related financial disclosures:</i>	Most banks have not matched their financial disclosures about climate change to any globally recognized standard.
<i>Moving towards a low-carbon environment in banking operations:</i>	The majority of banks have either implemented some policies or have strategies in place to reduce the total amount of carbon emissions that result from their activities and raise the share of renewable energy in the power they source overall. A few banks have committed to becoming carbon neutral within the next year, either by announcing time-bound intentions or by developing a roadmap.
<i>Capacity building and data gaps:</i>	In an effort to comprehend the financial ramifications of climate risk, the majority of banks are focusing on capacity building. The methods and methodologies to measure and monitor climate-related financial risks were also deemed inadequate by the majority of banks, who also believed that the data available was insufficient for a proper assessment of these risks.

2. Key Learnings and Suggestions:

Governance:	Banks must set up a system for monitoring and expanding climate risk and sustainability-related activities at the board or senior management level. They can think about incorporating KPIs related to sustainability, climate risk, and ESG into their top management performance assessment.
Risk management:	Banks must actively begin managing the physical, transition, and liability risks that are linked with it, to increase the resilience of their loan and investment portfolios to climate risk. Moreover, banks must create a plan for handling climate risk and include it into their overall risk management system.

Climate-related financial disclosures:	Banks must align their climate-related statements with an internationally recognized framework, to enhance the comparability and consistency of their financial disclosures with those of their international peers.
Opportunities from transition to a green future:	Banks may decide to set a goal for incremental lending and investment for sustainable finance, or they may think about raising more money to increase green lending and investment.
Human Resources (HR) and capacity building:	Banks must make large investments in enhancing the expertise of their employees in the areas of sustainable finance, ESG, and climate risk. Banks will also need to allocate specific resources to this sector if they hope to take advantage of the opportunities presented by climate change, sustainable financing, and the increased attention being paid to ESG.

The Relationship between Financial Literacy and Sustainable Finance

Financial literacy plays a pivotal role in enabling individuals and institutions to engage effectively with sustainable finance by improving their understanding of long-term environmental, social, and governance (ESG) implications of financial decisions (Schimmel, 2023). A financially literate population is better equipped to interpret ESG disclosures, evaluate sustainable investment products, and align financial choices with sustainability objectives. This relationship is inherently symbiotic, as sustainable finance requires informed decision-making that extends beyond short-term financial returns to include long-term societal and environmental outcomes.

Financial literacy enhances investors' ability to assess the sustainability and risk profile of investment opportunities, including green bonds, ESG-based funds, and climate-aligned financial instruments. Investors with higher financial literacy are more capable of evaluating climate-related and transition risks, enabling risk-adjusted decisions that support sustainable finance objectives. Moreover, financial literacy promotes responsible consumption and investment behavior, encouraging individuals to consider the broader social and environmental impacts of their financial choices.

At an institutional level, financial literacy supports improved governance and strategic integration of ESG considerations within financial institutions. As regulatory frameworks increasingly emphasize climate risk disclosure and sustainable finance practices, financial literacy becomes essential for understanding and implementing these requirements effectively. Integrating sustainability concepts into financial literacy initiatives further ensures that individuals and institutions adopt a long-term perspective on financial planning, contributing to economic resilience and sustainable development. Overall, financial literacy serves as a critical bridge between financial decision-making and sustainable finance, facilitating informed participation in a more responsible and sustainable financial system.

Policy Implications

The findings of this study highlight the need for integrating sustainability-oriented financial literacy into national financial education and regulatory frameworks. Policymakers and regulators such as the Reserve Bank of India and the Securities and Exchange Board of India may strengthen existing financial literacy initiatives by incorporating modules on ESG principles, climate risk awareness, and sustainable investment products. Enhancing financial literacy among banking professionals is equally important to support the effective implementation of emerging climate risk disclosure and sustainable finance regulations.

Financial institutions should invest in capacity-building programs to improve employee understanding of ESG risks and sustainable finance instruments, enabling better risk assessment and strategic decision-making. Additionally, public awareness campaigns can play a crucial role in encouraging responsible investment and consumption behavior among individuals. Strengthening collaboration between regulators, financial institutions, and educational institutions can help build a financially literate ecosystem that supports the transition towards sustainable finance. Such policy measures can contribute to improved ESG integration, enhanced financial stability, and long-term sustainable economic growth.

Conclusion

This study underscores the importance of financial literacy in strengthening sustainable finance practices, particularly in the context of evolving ESG and climate risk frameworks. The analysis reveals that although regulatory attention towards sustainable finance and climate-related risks has increased, significant gaps persist in governance structures, ESG integration, and institutional preparedness within the Indian banking sector. Financial literacy emerges as a critical enabler for understanding sustainability risks, interpreting ESG disclosures, and making informed long-term financial decisions.

Evidence from RBI policy developments and survey findings suggests that enhancing sustainability-oriented financial literacy among individuals and financial institutions can support better risk management, responsible investment behaviour, and effective implementation of sustainable finance regulations. Strengthening financial literacy through targeted education, capacity-building initiatives, and regulatory support can therefore accelerate the transition towards sustainable finance. Overall, the study concludes that financial literacy plays a foundational role in promoting ESG integration, improving financial stability, and contributing to long-term sustainable economic development.

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