

Two faces of sustainable banking. The bank's significant role in financing sustainability.

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Abstract

As the global focus on sustainability grows and the drive towards net-zero emissions intensifies, financial institutions are under increasing pressure to align their business strategies with both climate and development objectives. However, there is still a lack of systematic, empirically informed research on how banks' internal practices and external financing activities jointly contribute to sustainable development.

The aim of this paper is to analyse the dual role of banks as sustainable organisations and financial intermediaries in facilitating their clients' transition, and to identify the main challenges and opportunities associated with this role. The analysis was conducted based on a comprehensive literature review of academic research, supplemented by targeted analyses of policy reports and case studies from international initiatives such as UNEP FI, EBRD, CPI, and EBF. The aim is to derive an integrated conceptual framework for sustainable banking.

The findings show that while banks are increasingly integrating ESG standards into their strategies, risk management, product design, climate risk analytics, client transition support, and data availability remain key bottlenecks. This paper makes a valuable contribution to the literature on sustainable banking by clarifying the concept of banks' dual contribution to sustainable development and by proposing a structured set of challenges and opportunities to inform future empirical research and supervisory practice.

Keywords: banking; transformation; sustainability; environment; social; governance

1. Introduction

In light of the growing focus on sustainability in business and the global push to achieve net-zero emissions, the financial sector is under increasing pressure to address climate change and support mitigation efforts. Banks can facilitate the transition to net zero by providing loans, financing, and investment programmes for environmentally friendly projects. Their support can help companies achieve corporate ESG goals. Ultimately, banks that demonstrate a commitment to sustainability will benefit the environment and society, while also gaining a competitive advantage.

Banks play a dual role in contributing to sustainable development: internally, they manage their own environmental, social, and governance impacts as corporate entities. Externally, they shape real-economy outcomes through their lending, investment, and advisory activities.

Sustainable banking involves the strategic planning and execution (DXC Technology, 2025) of business activities and banking operations, considering environmental, social, and governance impacts. This ranges from inclusive lending schemes to customer-centric products that encourage climate action by promoting conscious consumption and transparency. Sustainable banking practices also involve planning and executing operations with an emphasis on environmental, social, and governance impacts to optimise profitability.

Recent regulatory and market developments have elevated sustainability from a peripheral concern to a core strategic issue for banks. Banks are playing a central role in this change, helping companies and individuals become more responsible in the future.

Banks are not the only organisations that affect sustainable development. Every firm influences environmental and social outcomes through its products, services, and management practices. However, banks occupy a systemic position because they both manage their own ESG footprint and steer capital allocation across the real economy. This dual contribution is increasingly discussed in policy reports but remains conceptually fragmented in the scientific literature.

Against this background, the paper addresses the following research problem: how do banks contribute to sustainable development through their internal practices and client financing, and what key challenges and opportunities shape this dual role? The aim is to systematise and critically assess existing knowledge on the dual role of sustainable banking, develop a structured overview of challenges and opportunities, and derive implications for further research and for practitioners.

There are two research questions that guide the analysis:

1. In what ways do banks contribute to sustainable development internally (as organisations) and externally (as financial intermediaries)?
2. What key challenges and opportunities emerge for banks in integrating sustainability into strategy, risk management and product offerings?

This paper reviews academic literature and analyzes policy and industry reports. It identifies peer-reviewed articles on sustainable banking, ESG, and climate risk using relevant keywords. These articles were screened for their focus on banks' ESG practices, sustainable products, and performance links. Recent reports from organizations such as UNEP FI, the Climate Policy Initiative, the European Banking Federation, and the EBRD were reviewed to capture current industry practices and frameworks that have not yet been covered in academic research.

1. Financial sector and SDGs

Many countries around the world are collaborating to reduce greenhouse gas emissions and achieve the United Nations' Sustainable Development Goals (SDGs). The SDGs ask the financial sector to provide funding to support climate action, environmental protection, and social progress.

- **Bridging the Climate Finance Gap:** Every year, there is a shortfall of an estimated USD 7.4 trillion in funding for climate action. This means that traditional funding sources are no longer enough. Special banks that exclusively lend to environmental projects, such as green banks, are now crucial for securing the funds needed for environmental initiatives, particularly in developing countries.
- **Banks' Dual Role:** This means they can help to make the world more sustainable. They can do this in two ways. First, they can make changes to how they work to think about the environment, society and how well they are run. This is referred to 'ESG considerations'. Second, they can provide their customers with financial assistance to help them establish more sustainable businesses. This means they have a bigger effect on society and the environment.
- **Competitive Advantage:** Banks that embrace sustainability can become more competitive by attracting customers, investors and partners who care about the environment and society. Using sustainable practices can also help manage risks related to climate change and evolving laws.

- **Evolving Regulatory and Market Expectations:** There is increasing pressure on banks from regulators and stakeholders to adhere to global rules, such as the Paris Agreement, and to be transparent about their actions, take responsibility for them, and demonstrate genuine progress on sustainability.
- **Catalyst for Broader Change:** By offering green loans, sustainable investment products, and advisory services, banks help their clients to become more sustainable and support the use of sustainable business practices in the economy.

The global sustainable finance market was valued at USD 5.87 trillion in 2024 and is projected to grow at a compound annual growth rate of 19.8% from 2025 to 2034.

Sustainable finance issuance reached USD 1.657 trillion in 2024, an 8% increase from 2023, with expectations that 2026 will see further growth, potentially surpassing the 2024 levels.

Banks are also developing ways to help the economy go green. Instruments such as green bonds and sustainability-linked loans allocate resources to projects that promote responsible practices. At the same time, credit risk assessments are increasingly based on environmental, social and governance (ESG) criteria.

Banks contribute to sustainable development by integrating ESG considerations into their own operations and providing financial products and advisory services that support clients' transition to more sustainable business models.

These trends indicate a structural shift towards integrating environmental and social considerations into mainstream financial intermediation. It is now an essential way for banks to differentiate themselves.

Sustainable banking is defined as the practice of aligning a bank's business strategies, decision-making, lending, and investment activities with sustainability goals, such as the United Nations Sustainable Development Goals and international agreements, including the Paris Climate Agreement. Sustainable banking is:

- integrating environmental, social, and governance criteria into core banking activities;
- supporting and accelerating a positive global transition for people and the planet by focusing on priorities such as climate action, nature and biodiversity, healthy and inclusive economies, and human rights;
- engaging stakeholders, setting and implementing measurable sustainability targets, and transparently reporting progress;
- providing financial products and services that enable clients to pursue sustainable development, such as green loans and investments in renewable energy.

Banks face numerous opportunities and challenges when they begin to implement ESG rules. For example, to follow the rules means spending money on advice, training and technology. Managing all the data is another big challenge. Collecting, analysing and reporting ESG information on a large scale is very complex and demanding.

However, there are numerous opportunities for sustainability. Integrating ESG practices helps companies enter new markets and attract a broader range of clients. These practices also enhance a company's reputation, attracting investors and employees who value sustainability. (Kaizen Institute, 2025)

3. Dual role of sustainable banking

Banks play a pivotal dual role in advancing sustainable banking, acting both as financiers and as facilitators of the transition toward a more sustainable economy.

Banks are capital providers and intermediaries (Avermaete, Bouzas, 2019):

- banks are essential in mobilizing and redirecting financial resources toward sustainable projects and activities. As the main source of funding for much of the global economy - especially in regions like Europe, where banks finance around two-thirds of economic activity - they can easily increase sustainable investments and close the big funding gap needed to meet the goals of the Paris Agreement and the UN Sustainable Development Goals;
- banks help to protect the environment, make sure everyone can get involved, and make sure that those in charge are acting responsibly by offering financial products like green loans, green bonds, and financing that is linked to how well a project protects the environment;
- banks also help to connect investors who are looking for ways to invest in projects that are good for the environment with businesses and projects that need money to make their operations more sustainable and cut their carbon emissions.

Banks are advisors, partners, and influencers (Sustain Case, 2025):

- beyond financing, banks have a critical advisory and partnership role. They work directly with customers to encourage and enable sustainable practices, helping businesses of all sizes assess their environmental and social impacts and develop transition strategies;
- banks implement systems such as Environmental and Social Risk Management (e.g., SARAS), conducting risk assessments and requiring clients to adopt mitigation or corrective measures as part of their financing agreements;

- they provide education and support to customers, promoting financial literacy and sustainability awareness, and often collaborate with other stakeholders - such as industry associations, regulators, and public agencies - to develop standards, taxonomies, and incentives that foster sustainable finance;
- banks help to shape the broader environment by working with the people and organisations involved, and by analysing what is important to them. This helps ensure that the bank's own operations and the projects it supports align with international agreements, such as the Paris Agreement, as well as national commitments to greater sustainability.

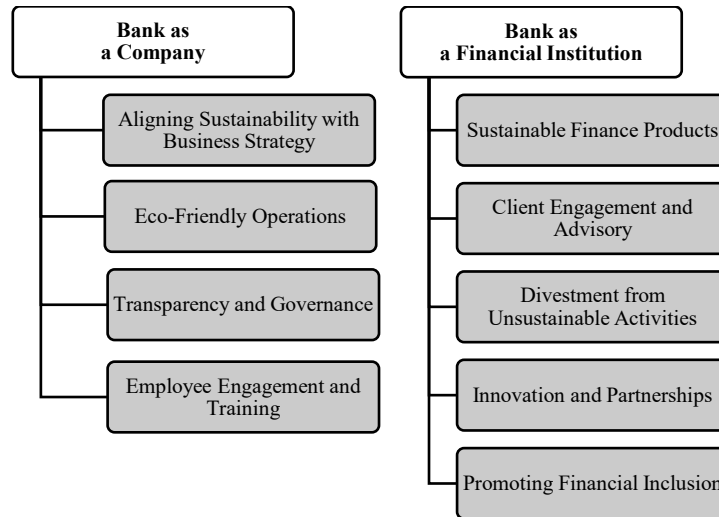


Fig 1. Banks' Dual Role in Sustainability

Banks' dual role is thus fundamental: they not only provide the capital needed for sustainable transformation but also act as catalysts and partners in the broader transition toward a sustainable economy, influencing both the supply and demand sides of sustainable finance.

Certain conditions must be fulfilled to transform a standard bank into a sustainable one. They are key to ensuring the success of sustainable banks (CPI, 2025):

- financial sustainability - while not profit-maximizing, sustainable banks must sustain operations and grow their capital base without relying solely on concessional capital. They must use public funds to encourage private investors to provide more. This means that organisations need to be able to adapt to and encourage private companies to provide funding for solutions to climate change.
- environmental sustainability - sustainable banks must clarify their mandates and keep their engagements tightly focused to build their reputations and avoid competition with other domestic financial institutions. Only projects that adhere to established climate themes and taxonomies - mitigation, adaptation, resilience, and, potentially, transition - should be included in their portfolios.
- political sustainability - integration with political leaders' vision is vital, as is alignment with central banks, key ministries (finance, environment, energy), broader climate strategy, and economic planning. Sustainable banks also require robust governance structures while retaining the flexibility to navigate changing political, regulatory, and market environments.

This dual contribution is not unique to banks – any organisation influences sustainable development through its operations and outputs – but banks' central position in the financial system amplifies their leverage over other sectors.

4. Bank as a sustainable company

Modern sustainable banks align their strategies and operations with international frameworks such as the United Nations Sustainable Development Goals, the Paris Agreement, and the Net-Zero Banking Alliance. This alignment ensures that their business activities contribute to both positive environmental and social outcomes and to financial returns.(UN Environment Programme Finance Initiative, 2025)

The United Nations Environment Programme Finance Initiative has articulated a clear vision for responsible banking, emphasizing the need for banks to measure and manage the impact of their financing on people, society, and the planet. This vision is operationalized through the Principles for Responsible Banking (PRB), which guide banks in aligning financial strategies with sustainability goals.(Subramanian, 2024)

The good examples of financial institutions that are building their position as strong, sustainable companies (UN Environment Programme Finance Initiative, 2025):

- Access Bank that strives to ensure that its efforts to become more sustainable align with the world's current needs. It achieves this by investing in environmentally friendly businesses and projects that support communities with limited financial resources.
- Vancity as a company that works to help people access financial services and support climate action. It has projects, such as climate-ready affordable housing, and is working with international frameworks, including the PRB.

Regular research done by the United Nations shows that sustainable banks focus on four main priorities: climate, nature and biodiversity, healthy and inclusive economies and human rights. These priorities are not only aspirational but are embedded in the strategic planning and operational execution of leading banks worldwide.

Table 1. Elements of the sustainable bank's strategy

Strategic Alignment	Align with SDGs, Paris Agreement
ESG Integration	Embed ESG in policies, governance, and operations
Responsible Financing & Divestment	Finance green projects, divest from polluting sectors
Financial Inclusion & Social Equity	Support underserved communities, promote equal opportunity
Transparency & Accountability	Regular sustainability reporting, stakeholder engagement
Innovation in Products & Services	Develop green loans, sustainable investments, and advisory services
Leadership & Culture	Foster a sustainability-focused culture and leadership commitment

Source: Own study.

Sustainable banks consider environmental, social and governance issues in all parts of their business. This change is driven by the company's leaders' commitment and proactive leadership, as well as regulatory requirements, market competition, and shifting customer preferences.

They should create their own rules by developing a plan that prioritizes sustainability. This could mean investing in ways that don't harm the environment and sharing information about climate change. They should establish clear, measurable targets for climate action, biodiversity, and human rights, often guided by international protocols and frameworks. (UN Environment Programme Finance Initiative, 2025) Governance and reward systems should incorporate ESG criteria into governance structures and link them to reward systems to ensure accountability and drive performance.

Two illustrative examples of banks that are building their position as strong, sustainable companies (UN Environment Programme Finance Initiative, 2025):

- Danske Bank that sets clear climate goals and reports progress, screens for human rights risks, and exercises active ownership in its investments;
- Itaú Unibanco integrates sustainability into governance and reward systems, implements voluntary frameworks, and drives financial inclusion and sustainable growth.

Banks play a crucial role in funding environmentally friendly projects, including renewable energy, energy efficiency, and sustainable transportation. They achieve this by using products such as green bonds and sustainability-linked loans, along with other innovative financial tools.

At the same time, sustainable banks are selling shares invested in the industries that harm the environment, such as fossil fuel extraction and deforestation. This means they care about the environment and want to help create a low-carbon economy. They do this by offering dedicated products for customers, for example:

- green bonds and loans to finance projects with positive environmental impacts;
- social bonds and transition bonds to support social development and the transition to sustainable business models;
- microcredit and inclusive finance to provide capital to underserved segments, supporting entrepreneurship and social mobility.

The examples of the banks that are using dedicated products to have an impact on the customers are (UN Environment Programme Finance Initiative, 2025):

- the Bank of Jiangsu, which advances green finance through innovative solutions and robust ESG risk management;
- ING implements boundaries to financing within its Environmental and Social Risk policy framework, taking an integrated approach to climate, nature, and human rights.

Sustainable banks aim to assist individuals with limited financial resources by providing them with access to credit and banking services. This includes supporting microfinance, affordable housing, and initiatives that empower women and marginalised groups. For example, the National Bank of Canada promotes affordable housing. It works with newcomers to support financial inclusion (BAC), helping inclusive economies through initiatives that empower people and benefit communities.

By ensuring that everyone has equal opportunities and access to the same economic resources, sustainable banks help create a fairer, more inclusive society. This helps to improve relationships and trust, making customers more likely to remain loyal to the bank. This enables the bank to outperform its competitors.

Transparency and accountability are foundational to sustainable banking. Banks regularly report on their sustainability performance, disclose their impacts, and engage with stakeholders to ensure alignment with stated goals and societal expectations.

Banks have also started to follow international reporting standards. These include the Task Force on Climate-Related Financial Disclosures, the Green Bond Principles, and the Green Loan Principles. These frameworks help banks navigate the risks and opportunities associated with climate change. They ensure the reports are comparable and trustworthy.

It is crucial to collaborate effectively with customers and stakeholders, maintaining an open and honest approach. Some of the best banks are working on ways to become more sustainable. As part of this, they are speaking with individuals interested in the bank. This ensures that informed decisions are made and improvements are achieved over time, taking into account a variety of views.

Innovation is a crucial component of sustainable banking. Banks are developing a range of financial products to support environmental and social objectives. These include:

- green loans and savings accounts to encourage our clients to live more sustainably, with better rates and terms for those who choose to do so;
- sustainable investment options to offer investment products that prioritize ESG criteria, enabling clients to align their portfolios with their values;
- green FinTech to rise of green financial technology is accelerating, with the sector expected to grow by over 22% annually through 2029, driving digital solutions for sustainability challenges.

As a leader in driving financial innovation in green products and ESG risk management, the Bank of Jiangsu uses technology and stakeholder engagement to advance its sustainability agenda. This provides a good example of the approach.

The integration of sustainability into banking operations is driven by strong leadership and a culture that prioritizes Environmental, Social, and Governance considerations. Top management commitment is essential for embedding sustainable practices, supported by ongoing training and capacity building for employees.

There are some cultural change initiatives that banks should implement:

- the bank's mission, values, and strategic objectives all include sustainability, making it a key factor in every decision;
- employee training - banks invest in training programs to build sustainability knowledge and skills, preparing employees to become future sustainability leaders;
- reward systems - linking ESG performance to reward systems reinforces the importance of sustainability and drives accountability at all levels.

Good examples for the implementation of the above practices are (UN Environment Programme Finance Initiative, 2025):

- MUFG that prioritizes human rights in sustainability management and supports conservation of natural capital and biodiversity through regional engagement and dialogue;
- Itaú Unibanco advances governance, climate action, and sustainable finance through integrated leadership and reward systems.

Based on the success of banks that effectively address ESG issues, one can conclude the benefits that banks gain. It should be motivation for those who didn't start or are just starting the implementation:

- reduce costs - according to banks' analysis, reducing carbon emissions and waste helps to reduce operational costs and could potentially improve operating profitability by up to 60%. While investing in environmental, social, and governance initiatives may seem like a significant expense with no immediate financial benefit, banks that prioritize ESG tend to have higher return on investment (ROI);
- enhance the value proposition - tackling ESG challenges will require the bank to innovate. Businesses can generate value by differentiating existing products or creating new green products or services, such as climate credit cards or carbon tracking;
- improve brand reputation - consumers are increasingly valuing banks that proactively reduce their environmental impact. Research shows that 64% of consumers are willing to choose, switch to, avoid, or boycott brands they perceive as unethical. So, ESG reporting can show consumers that the bank cares about environmental and social issues, thereby improving its reputation.
- employee recruitment and retention - many young people are driven to pursue careers that align with their values. Research shows that 76% of Millennials think about how a company affects society and the environment before they choose a job;

- profitable investment - investors are looking for ways to earn returns from socially and environmentally responsible businesses. Therefore, sharing information about the bank's impact is a surefire way to capture their interest. Banks that do not provide this information may be perceived as high-risk.

Empirical evidence increasingly links banks' ESG performance to their funding and performance profiles. Panel data for 493 banks across 39 advanced and emerging economies between 2003 and 2020 show that higher ESG scores are associated with lower total cost of funds and lower deposit-attracting costs, particularly for large banks in developed markets. Other studies find that ESG policy disclosure and governance quality are positively related to ROE and ROA in commercial banks, although the strength and direction of effects can vary across regions and ESG pillars.

For example, a study of Southeast Asian banks (2010–2020) reports a negative aggregate effect of ESG on traditional financial performance measures, while identifying heterogeneous effects across the environmental, social and governance pillars.

To implement ESG successfully, the PRB Responsible Banking Journey (UN Environment Programme Finance Initiative, 2025) provides a structured framework for banks to advance from foundational to leading practice in sustainability. It is built on three cornerstones: Assessment, Strategy, and Action.

UNEP FI's 'Responsible Banking Journey' provides a staged approach (assessment–strategy–action) that many banks use to structure ESG integration, but it is not reproduced here due to copyright restrictions.

At the assessment stage, banks conduct thorough portfolio analyses to understand the impacts of their financing on global, regional, and national sustainability priorities. This involves measuring and monitoring progress, identifying areas for the most significant positive and negative effects, and establishing a baseline for action.

Strategic sustainability management involves translating ambition into measurable targets, establishing governance structures, and aligning with key frameworks. Banks focus on areas where they can have the most tremendous impact, guided by scientific findings and market practices.

Action plans demonstrate to banks how they will achieve their environmental goals. They include creating new policies, working more closely with their customers, and managing their investments in an environmentally responsible manner. Banks also work with other organisations to increase financing for the sustainability transition.

People all over the world are beginning to recognize sustainability as more than just a desirable quality. It is becoming increasingly important. One can see incentives for sustainable practices, such as tax breaks and awards, being transformed into legal requirements as environmental concerns grow. Now, banks are under increased pressure to comply with environmental regulations. If they fail to comply, they may be required to pay fines or face additional penalties. The bank may also lose customers due to the impact on sustainability.

Banks should remember that they have a significant responsibility to fulfill. They can help to pay for and support the green transformation. Engaging their customers on ESG and sustainable finance represents an excellent opportunity for banks to help them adapt their businesses or lifestyles to a greener, more sustainable future. If implemented correctly, sustainability can be a competitive advantage, leading to more satisfied and loyal customers and enabling banks to defend their fees better. To capitalize on the opportunities presented by sustainable finance and ESG, banks must exceed the minimum standards established by regulators and prioritize sustainability as a key component of their business strategy.

A bank can incorporate ESG into its business strategies by integrating ESG into its business plans in various ways, which can be categorized into three groups:

1. Sustainable finance to encourage economic growth while also taking steps to reduce environmental pressures. It also examines how companies are run and the issues that affect people and businesses, including inequality, human rights, management structures, and executive compensation. It also examines environmental issues, including mitigating climate change, adapting to its effects, protecting animal and plant life, and effectively utilizing resources. In simple terms, it's about making business and investment decisions that consider the environment, society, and a company's overall performance, as well as generating profits. Banks are now incorporating ESG (Environmental, Social, and Governance) factors into their loan portfolios to make them more sustainable. By focusing on loans and other financing options for companies that are serious about sustainability and ESG, banks can enhance their loan services and support sustainable projects. Responsible lending in the banking industry is a crucial signal for businesses and corporations seeking financial support. Vehicles for financing that are sustainable, such as sustainability bonds, social bonds, or green bonds, are crucial in promoting efforts for ESG.
2. Efficiency of operations - operational excellence is now defined by agility, resilience, productivity and environmental sustainability. Globalisation of business and the global pandemic have increased the need for competitiveness and growth. Adopting digital systems will be key to the future of the banking system, improving operational efficiency, promoting excellence, and reducing resource consumption and waste.

The quest for excellence in operations should include cutting waste as a key part of a complete solution for business customers. It is very important to reduce waste in today's competitive business environment, both for industry and the economy. Concepts such as lean management, operational excellence, and sustainability strategy are all part of these efforts.

Many well-known companies all over the world are now dealing with environmental, social and governance (ESG) issues. For example, the growing focus on climate change and the environment has led major banks, such as J.P. Morgan, Wells Fargo, and Bank of America, to initiate new projects to demonstrate their commitment to ESG standards. There are several ways in which banks can enhance their operations to support their ESG strategy, ultimately having a positive impact on the sustainable ecosystem.

3. Responsible investing or ESG (Environmental, Social, and Governance) investing is a powerful force in driving the ESG ecosystem for large institutional investors. It involves investing in companies dedicated to ESG factors. Growing awareness of issues such as climate change, corporate misconduct and social inequality has made Environmental, Social and Governance (ESG) factors crucial to businesses' reputations and performance. This allows banks and financial institutions to stimulate growth and distinguish themselves in terms of meeting customer needs.

Investors should take note of banks' ESG framework, which can be divided into three categories: corporate social responsibility (CSR), the stock exchange, and business responsibility. According to the Corporations Act 2013, certain profitable corporations are required to allocate at least 2% of their three-year annual average net profit to corporate social responsibility efforts within a fiscal year.

Commercial banks face numerous challenges. These include digital technology, new competitors, low interest rates and changes to the rules. This may make it more appealing to limit ESG issues in large-scale transformation efforts. However, it's essential to remember that banks' management of wealth and assets can help ensure that investments remain stable over time.

Banks that work in a way that benefits the nation while thinking about the effect of their work are more likely to provide returns that last for a long time and are suitable for everyone. This is why it is so important to include ESG principles in the culture and structure of banking.

In this new era of environmental awareness, businesses must take ESG seriously and demonstrate their commitment to fulfilling their promises. This is achieved by implementing ESG metrics and monitoring their effectiveness. Using ESG performance metrics to measure ESG success can help communicate a bank's values to both its employees and the public, demonstrating that ESG is integral to the business.

ESG performance metrics help banks measure their progress toward achieving their ESG goals. There are three reasons for this:

- tangibility of commitments - without ESG reporting metrics, verbal commitments lack data grounding, which can result in unaccountable big promises;
- measurement what matters - tracking the numbers is essential to gauge your progress. Without measurable results, it's hard to determine if the bank needs to make any adjustments;
- ESG involves multiple stakeholders, including the public, investors, governments, and business partners. These stakeholders expect accurate reports with ESG metrics details to assess the bank's initiatives.

ESG frameworks provide banks with a set of guiding principles to help them identify, assess, document and measure their ESG commitments. These frameworks are created by governing bodies and NGOs, such as the World Economic Forum.

To make ESG more scientific, these frameworks outline various reporting metrics to track performance against certain benchmarks. ESG frameworks, metrics and qualitative declarations enable banks to produce ESG reports.

ESG reports are documents that offer thorough transparency into the bank's ESG efforts. The goal of ESG reporting is to provide stakeholders, including governments, NGOs, investors, and the public, with insight into a bank's ESG initiatives, thereby fostering accountability toward ESG goals.

One example of a process in which the bank should take ESG considerations into account is the credit process.

Credit protection and return protection have always been the foundation of debt finance transactions. Many transactors fear presenting potential transactions to credit committees because they know that new terms may be imposed on them. The credit committees aim to safeguard their bank's balance sheet and reputation, while transactors aim to ensure the growth of the balance sheet and protect that growth. However, the distinction between these two functions is starting to blur and, in some cases, reverse, especially in the context of sustainable finance.

As sustainable finance becomes more important in the ESG arena, institutions are dedicating time to educate their staff on the role financiers can play in advancing the ESG agenda. At the same time, institutions are educating their staff on how ESG can shape their agendas and future prospects.

Transactions that were once considered risky, due to location or industry, are now viewed as attractive opportunities for banks to include in their Environmental, Social, and Governance (ESG) portfolios. Credit committees have been given the mandate to support this shift and, in most cases, are willing to overlook previous concerns about what was once deemed risky, to facilitate ESG deals.

The more ESG deals the bank can execute, the better its long-term prospects will be. This is especially relevant as large companies navigate stakeholder pressure. Therefore, credit committees are allowing institutions' balance sheets to expand by permitting more deals to progress within reasonable limits. Transactors are then tasked with shaping ESG deals to protect both the return and the credit offered to a borrower. The challenge is that previous "market" terms are no longer applicable due to the market shift relating to credit committees. Some may see this as searching for something without knowing what that something is, as there are no longer market precedents to leverage when negotiating terms. Others will view this impasse as an opportunity to chart a new course with terms that are so unique that market participants would be hard-pressed to find them elsewhere. These creative solutions form the foundation of sustainable finance, as financiers and borrowers strive to reach mutually agreeable and innovative solutions in their negotiations. These creative solutions can no longer be exclusively focused on maintenance and incurrence covenants but must relate to the additional aspects of what and whom is being financed.

Key performance indicators have long been utilized in a financial context to provide objective metrics for evaluating a business's performance and overall health. These metrics are now also being used to assess whether a borrower is meeting sustainability targets, which are crucial for obtaining credit committee approval. Sustainable KPIs may be used alongside traditional covenants or as standalone measures. These sustainable KPIs must be customized and relevant to the specific nature, location, and industry of the business, especially since they are often tied to margin adjustments.

In sustainable banking, Key Performance Indicators represent specific, predefined, objective outcomes. It is important to note that these outcome metrics do not necessarily have to be directly linked to the borrower's business or the underlying financing. However, they must be reasonable. For example, it would not be sustainable to use a loan facility for a prohibited activity if the loan had a non-linked key performance indicator that could still be met.

The approach to setting KPIs should consider the nature of the borrower's business operations, the sector, and the geography. Ideally, the KPIs should be directly associated with these three factors. For example, a renewable energy project may have key performance indicators related to the use of local contractors and environmental conservation. However, these KPIs may not always be feasible, and there are other equally effective ways of incentivising borrowers to promote sustainability. These could include community development, wildlife and forestry conservation, and nation-building, particularly in developing markets.

Measuring the actual outcome of a KPI presents a challenge - for example, establishing what would define success in building the school. Would it be the construction of the school, the number of female learners enrolled, their pass rates, or their subsequent participation in the economy? The KPIs must be clearly defined in terms of the outcomes of the specific activities. This is particularly important for impact bonds and philanthropic or recyclable capital, where the financing is directly related to the KPIs. In order to address the issue of granularity, the nature of the borrower's business, its sector and its geographical location must be considered.

Consideration of these three factors would give a bank an idea of the specific issue it needs to address and identify a problem that requires a solution. Once the problem is clearly understood, it becomes easier to identify measurable outcomes. This addresses the issue of granularity, as market participants will have a clear understanding of how to solve the problem once it is identified. For example, if the issue is the lack of literate young females in a specific region, the outcomes-based metric would be the number of young female learners who become literate through the school.

Both banks and borrowers need first to decide on which problems require solutions before setting Key Performance Indicators. This approach would avoid ambiguity in determining granularity. Achieving these goals would also represent actual value in the context of sustainability, as opposed to setting abstract targets that create disagreements between the parties. Members of the finance industry dealing with businesses should adopt a problem-solving approach from the beginning of discussions with potential borrowers, even before these possible deals get to credit committees. As we mentioned earlier, credit committees are increasingly approving more Environmental, Social, and Governance deals, so it is now the responsibility of transactors to protect the bank's reputation and credit through innovative outcomes-based structures, which also contribute to sustainability.

The adoption of sustainable banking practices is transforming the financial services landscape. Not only are sustainable banks improving their own performance and efficiency, they are also driving systemic change across industries and supporting the global transition to a low-emissions, inclusive future.

While the benefits of sustainable banking are clear - enhanced reputation, competitive advantage, innovation, and social capital - banks must also overcome challenges relating to data collection, measurement, and regulatory compliance. Overcoming these challenges requires a multidisciplinary approach that incorporates technical improvements and integrated frameworks.

As sustainability becomes central to banking, developing expertise in this area will offer significant opportunities for current and aspiring professionals. Knowledge and skills in areas such as sustainable finance, ESG integration, and responsible banking will be in high demand as the sector continues to evolve.

Banks are at the forefront of the global sustainability movement, leveraging their unique position to drive positive change for people, society, and the planet. This involves aligning with international frameworks, integrating ESG into core operations, innovating products and services, and fostering a culture of sustainability. In doing so, banks are redefining their role as sustainable companies. The journey is ongoing, but the direction is clear: sustainability is not just a trend-it is the future of banking.

5. Bank as a sustainable financial institution for customers

Banks' role is to support customers' sustainability transitions by offering green loans, sustainable investment products, and transition finance, while also assessing and managing environmental and social risks in customers' portfolios.

Today's customers, especially younger generations, are increasingly concerned about the impact of their financial decisions. They expect their banks to share their values, particularly about climate change, social justice, and ethical governance.

Sustainable banks provide an opportunity for customers to align their savings, investments and borrowing with their values. They often adopt standardised reporting frameworks, providing customers with clear information about the environmental and social impact of their financial activities. This transparency fosters trust and strengthens the relationship between banks and their clients.(d'Aspremont, 2025)

By prioritizing sustainability, banks can offer innovative products, such as green loans, sustainability-linked bonds, and ESG investment funds, providing customers with access to financial tools that support positive change.(CFA Institute, 2024)

Sustainable banks have developed a wide array of products and services designed to support the transition to a more sustainable economy. These offerings cater to both individual and corporate clients, enabling them to participate in the shift toward sustainability.

Table 2. Green financial products and services

Retail Banking	Corporate and Investment Banking
<ul style="list-style-type: none"> • Home Mortgages • Commercial Building Loans • Home Equity Loans • Auto & Fleet Loans <ul style="list-style-type: none"> • Credit & Debit Cards • Personal Accounts • Green Sale & Travel Money Products • Other Products & Services 	<ul style="list-style-type: none"> • Project Finance • Securitization • Venture Capital & Private Equity • Indices • Carbon Commodity Products and Services • Other Products & Services
Asset Management	Bonds
<ul style="list-style-type: none"> • Fiscal Funds • Investment Funds • Carbon Funds • Cat Bond Funds 	<ul style="list-style-type: none"> • Green bonds • Sustainability bonds • Social bonds • Sustainability-linked bonds • Transition bonds

Source: Own study.

Green loans are designed to finance projects that offer clear environmental benefits, such as installing renewable energy sources, upgrading buildings to be more energy efficient, and adopting sustainable agricultural practices. These loans often come with preferential terms, such as lower interest rates, to encourage sustainable investment.

Green mortgages reward homebuyers for purchasing energy-efficient properties or investing in energy-saving renovations. Borrowers may benefit from lower rates or additional incentives, thereby supporting the broader goal of reducing residential carbon emissions.

Sustainability-linked loans are not restricted to specific green projects. Instead, they tie loan terms, such as interest rates, to the borrower's achievement of pre-defined sustainability targets. For example, a company may receive a lower interest rate if it reduces its greenhouse gas emissions or improves its Environmental, Social, and Governance (ESG) score. These instruments encourage companies across all sectors to pursue ambitious sustainability goals.

Green bonds are a type of debt security issued to finance environmentally beneficial projects, such as those involving renewable energy, clean transportation or sustainable water management. Investors in green bonds can be sure that their capital is being used to fund projects that contribute to climate mitigation or adaptation.

Social bonds, meanwhile, finance projects that deliver positive social outcomes, such as affordable housing, healthcare, and education. These instruments are gaining popularity among investors seeking both financial returns and social impact.

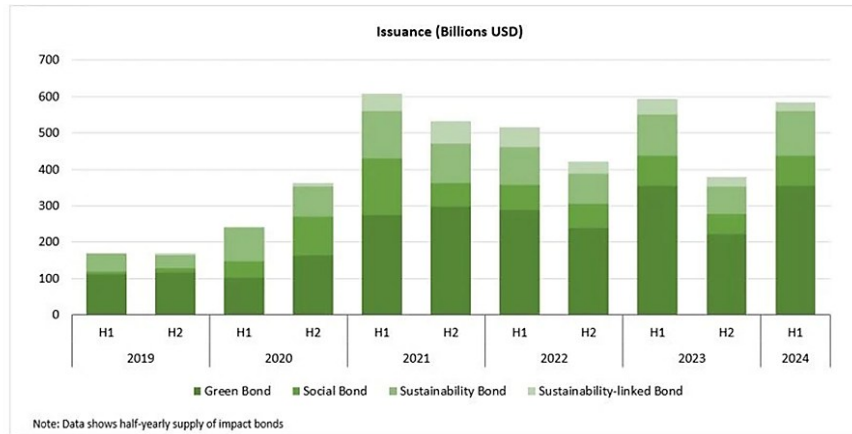


Fig. 2. Sustainable Bonds Issued by Banks Globally
 Source: Bloomberg, www.bloomberg.com (01/06/2025)

Sustainable banks offer a range of investment products that integrate ESG criteria. These may include mutual funds, exchange-traded funds (ETFs), and discretionary portfolios that consider environmental, social, and governance (ESG) factors when making investment decisions. This allows customers to invest in companies and projects that align with their values, thereby supporting the transition to a more sustainable economy.

59% of banks now offer green financial products as standard. Meanwhile, 33% of institutions focus exclusively on green investment.

A key aspect of sustainable banking is promoting financial inclusion to ensure that underserved and marginalised communities have access to essential financial services. This may involve microfinance loans for small businesses and entrepreneurs, affordable housing finance and banking services tailored to low-income or rural populations.

Sustainable banks provide customers with detailed reporting on the ESG impact of their financial activities. This may include carbon footprint disclosures, breakdown of investments by sustainability category and progress reports on sustainability-linked targets.

Banks are beginning to integrate ESG criteria into treasury and trade finance services. For example, companies may receive favorable terms for meeting ESG standards in their supply chains or for using sustainable materials in trade transactions.

Innovative fintech solutions are playing a crucial role in making banking more sustainable. Digital platforms can help banks to collect, manage and report Environmental, Social and Governance (ESG) data more efficiently, thereby reducing compliance costs and facilitating connections among stakeholders across the financial ecosystem.

The following real-world examples illustrate how leading banks are implementing sustainable banking principles and developing innovative products and services.(UN Environment Programme Finance Initiative, 2025) These banks demonstrate the diverse ways in which sustainable banking can be embedded across products, services, and business strategies.

Table 3. Examples of banks developing banking products and services.

Bank Name	Key Sustainable Initiatives
Access Bank	Financing green projects, inclusive lending for underserved communities, and aligning with global priorities
Danske Bank	Climate goal setting, biodiversity impact assessment, human rights screening, stakeholder engagement
ING	Client engagement on climate, sectoral pathways to net zero, and integrated ESG risk management
Vancity	Climate-ready affordable housing, financial inclusion, and alignment with international sustainability frameworks
BAC	Community empowerment, climate action, and sustainable product taxonomy
MUFG	Supporting customer transitions to carbon neutrality, conservation of natural capital, and prioritizing human rights
National Bank of Canada	Green commercial real estate, renewable energy finance, and affordable housing initiatives
Itaú Unibanco	Integrating sustainability in governance, empowering women, and supporting green initiatives
Bank of Jiangsu	Green finance innovation, ESG risk management, stakeholder engagement
Commercial International Bank	Climate finance, partnerships for sustainable finance, and responsible governance

Source: Responsible Banking Case Study Series. 2025. UN Environment Programme Finance Initiative, www.unepfi.org

The above examples are confirmation that banks can achieve a balance between profitability and positive environmental and social impact by strategically integrating sustainability into their core products, risk frameworks, and client offerings. The most effective approaches combine innovative financial products, rigorous sustainability criteria, and partnerships that enhance both revenue and responsible outcomes.

Based on the previous experience with banks, there are key strategies for sustainable and profitable portfolios recommended for banks (Network for Greening the Financial System 2024):

1. **Sustainable lending and green products.** Banks should develop specialised loan products, such as green mortgages, renewable energy financing and sustainability-linked loans. These products incentivise customers to adopt sustainable practices while ensuring the bank remains profitable. For instance, sustainability-linked loans link interest rates to the borrower's achievement of environmental targets, thereby rewarding both the bank and the client for improved performance. Banks should also offer green bonds and sustainable deposits to attract environmentally conscious investors and direct capital towards projects with a measurable positive impact.
2. **Banks should integrate ESG and climate risk considerations into their credit assessment processes.** Banks should incorporate environmental, social and governance criteria into their risk assessment models. This reduces the likelihood of credit downgrades and aligns the bank's risk profile with long-term sustainability goals. Banks utilize advanced climate risk analysis to assess both physical and transition risks in their loan portfolios, ensuring that lending decisions support resilient, future-proof investments.
3. **Innovate in transaction and cash management services.** Embed sustainability features into core products such as trade finance, commercial cards, and payment solutions. For instance, banks should offer better terms for transactions involving sustainable goods or services or round up card payments to fund environmental initiatives. They should also invest client deposits in sustainable assets and provide liquidity management solutions that segregate funds for sustainable activities.
4. **Partnerships and ecosystem development.** Banks should collaborate with fintechs, ESG rating agencies, and industry groups to access data, develop sustainability metrics, and enhance product offerings. Strategic partnerships enable banks to deliver comprehensive solutions and maintain competitiveness as sustainability expectations evolve.
5. **Community investment and advisory services.** Banks should expand their impact beyond direct banking operations by investing in local sustainability initiatives and providing advisory services to help clients enhance their sustainability performance. They should develop value-added services, such as certification, analytics, and sustainability reporting, to help customers track and achieve their goals.

Banks can build product portfolios that drive both profit and positive environmental and social impact by integrating sustainability into lending, investment, and transaction services, and by leveraging data, partnerships, and innovation. This approach positions banks as leaders in the transition to a more sustainable economy, meeting the evolving demands of stakeholders along the way.

Banks inspire and share good practices among themselves. Based on this, several banks worldwide are recognised in 2025 for their commitment to sustainability, ethical finance, and environmental responsibility. These institutions are recognised for their transparent practices, green financing and robust exclusion policies against harmful industries. (Pulliam, 2025)

- Triodos Bank (Netherlands/UK) - frequently cited as a top ethical and sustainable bank, Triodos only lends to organizations with a positive social, environmental, or cultural impact. It does not invest in fossil fuels, weapons, tobacco, or other destructive industries, and is highly transparent about its investments.
- Amalgamated Bank (USA) – a certified B Corp and net-zero bank, Amalgamated is committed to environmental and social responsibility, with 32% of its loan portfolio dedicated to climate solutions and a strict policy against lending to fossil fuel companies.
- LGT Private Banking (Global) - recognized as the world's best for sustainability in 2025, LGT Private Banking integrates sustainability across all products and provides clients with detailed environmental footprint reporting.
- CaixaBank (Spain) - honored for sustaining communities, CaixaBank is a leader in microfinance, social bonds, and financing projects with positive local impact, including affordable housing and health initiatives.
- Maybank (Southeast Asia) - awarded for sustainable financing in emerging markets, Maybank supports social and environmental projects, such as waste management and microfinance for women entrepreneurs.
- OTP Bank (Central and Eastern Europe) - a leader in sustainability-linked loans, OTP Bank ties loan terms to ESG performance and has significantly increased its green lending portfolio.
- TSKB (Turkiye Sinai Kalkinma Bankasi) (Turkey) - specializes in sustainable investment banking, focusing on climate-friendly investments, gender equality, and inclusive economic growth.

Since the introduction of sustainability into the financial sector, a new type of risk has emerged in banks - sustainability risks, also known as environmental, social, or governance risks. These risks focus on the potential effects that a bank's stakeholders (such as customers, outsourcing suppliers, employees, or the environment) may have, as well as the impact that the organization may have on its stakeholders and the environment due to its activities. When these ESG risks occur, they can have negative implications for assets, the financial and earnings situation, or the bank's reputation.

The growing awareness of climate change risks and regulatory pressure are compelling banks to improve their management of these risks. Large global banks have begun to establish dedicated climate risk teams, while others are still in the early stages of this process. Due to the lack of an industry standard, banks are taking different approaches to integrating climate risk into their overall risk management. Most commonly, banks include climate change in their assessment of emerging risks. However, there is a growing trend to analyze the impact of climate change on significant credit exposures, integrate it into the enterprise risk framework, and develop specific policies for the most affected businesses. Progress in conducting scenario and financial analysis of climate change impacts varies across the industry.

Banks have developed or are developing approaches to (KPMG 2024):

- identify material climate-change risks on an ongoing basis (58% banks);
- assess the impact of climate change on expected credit losses (49% banks);
- quantify the potential capital impact of climate-change risks (40% banks).

Beyond profitability, ESG has risk implications. Research using a global sample of 362 commercial banks shows that ESG indicators significantly improve models' ability to forecast bank financial distress, suggesting that stronger ESG performance is associated with lower distress risk. Recent work also finds that higher ESG performance enhances bank stability, although the magnitude of this effect depends on contextual factors such as national culture.

As stated in Basel III, banks are required to incorporate risk management functions that involve identifying individual, aggregate, and emerging risks, as well as assessing and measuring the bank's exposure to these risks. Research indicates that while the identification and control of environmental and social issues in core banking practices are becoming more common, there is still a need to significantly improve the integration of sustainability criteria into lending and investment banking activities to protect the value of banks' assets in the short and long term. Due to their role as financiers of the real economy, banks are inherently exposed to credit, reputational, legal, operational, and market risks arising from environmental and social issues affecting their clients and customers (indirect risks). These risks can result from the environmental and societal impacts of customer activities, such as pollution, natural resource depletion, and concerns for the health and safety of communities and employees. They can also stem from the physical impacts of environmental issues, such as severe weather events, water stress, and fluctuating ecosystem services, on client performance and success. Banks can also face direct risks resulting from noncompliance with environmental and social regulations, such as inadequate workforce conditions or a lack of action concerning best practices, including failure to implement greenhouse gas reduction strategies. Risk teams play a crucial role in identifying and managing risks arising from environmental and social issues at the supplier, transaction, and global portfolio levels.

Banks typically categorize climate-related risks into two main groups:

- physical risks - these are risks that affect the bank's premises, operations, customers, and the broader economy. They encompass extreme weather events and long-term climate changes that could result in the closure of retail branches or facilities, negatively impact clients' creditworthiness, and affect asset prices.
- transition risks - these are risks that influence a bank's products and services as a result of the shift toward a lower-carbon economy. They include the bank's funding or investments in companies that emit greenhouse gases, changing stakeholder expectations, and related legal or regulatory changes.

Although banks have long been aware of the impact of severe weather events on business continuity, reduced emissions during the pandemic have drawn increased attention from the public, governments and businesses to climate risks. The discussions about the broader impacts of climate change that were ongoing before the pandemic remain relevant.

6. Principles for Responsible Banking

The Principles for Responsible Banking, established by the United Nations Environment Programme Finance Initiative (UNEP FI), serve as the world's foremost framework for sustainable banking. With over 345 signatory banks representing more than half of the global banking industry, these Principles guide banks in aligning their strategies and operations with the United Nations' Sustainable Development Goals and international agreements, such as the Paris Climate Agreement. (UN Environment Programme Finance Initiative, 2025)

The Principles for Responsible Banking are designed to accelerate a positive global transition for people and the planet. By committing to these Principles, banks pledge to:

- align their core strategy, decision-making, lending, and investment activities with the SDGs and climate objectives;
- measure and manage the impact of their financing on people, society, and the environment;
- transform the finance sector through four key sustainability priorities: climate, nature, inclusive economies, and human rights.

Responsible banks under the Principles for Responsible Banking framework focus on:

- climate by setting clear climate goals, supporting the transition to a low-carbon economy, and reporting progress;
- nature and biodiversity by assessing and mitigating impacts on nature, and supporting conservation efforts;
- inclusive economies by promoting financial inclusion and supporting underserved communities;
- human rights by screening for social risks, respecting human rights, and exercising active ownership.

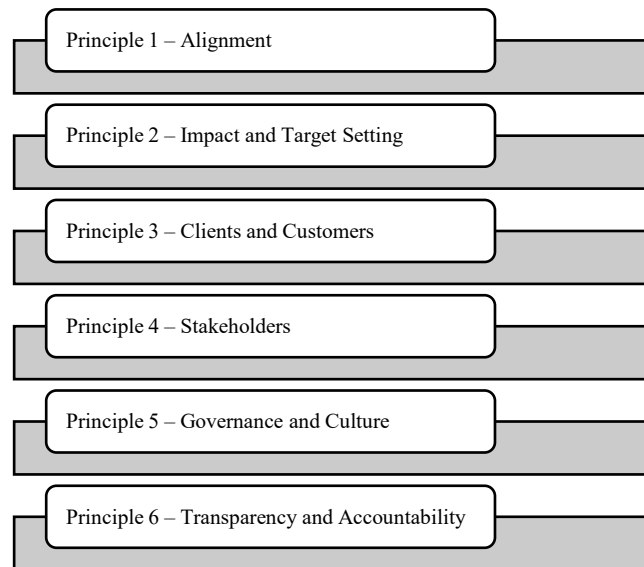


Fig. 3. Principles for Responsible Banking

Source: Principles for Responsible Banking. 2025. UN Environment Programme Finance Initiative, www.unepfi.org

The Principles for Responsible Banking provide banks with a comprehensive and practical framework for integrating sustainability into their core business. By adopting these principles, banks are supporting global goals and positioning themselves as leaders in the transition to a sustainable future, which benefits customers, society and the environment.

7. Challenges and opportunities in sustainable banking

Building on the literature review and recent survey evidence from institutions such as the EBRD and CPI, the challenges and opportunities identified here are grouped into internal (resource- and capability-related) and external (regulatory, market and technological) factors.

The field of sustainable banking is evolving rapidly as financial institutions integrate environmental, social and governance criteria into their core operations. This transformation presents significant challenges and promising opportunities as banks strive to support a low-carbon, inclusive economy.

The key challenges for banks are:

- limited access to capital - many banks, especially in emerging markets and developing economies, struggle to secure sufficient domestic and international funding to scale sustainable finance initiatives;
- regulatory and policy barriers - inadequate or misaligned regulatory frameworks, inconsistent policies, and a lack of supportive government action can hinder the growth and effectiveness of sustainable banking;
- capacity and expertise shortfalls - banks often face a lack of technical expertise and institutional capacity to design, implement, and monitor effective sustainable finance products and strategies;
- data and reporting - collecting and verifying ESG data remains complex, particularly as standards evolve and regulatory requirements become more stringent (Aspremont, 2025);
- risk perception and management - high perceived risks in green sectors, information asymmetries, and insufficient risk-sharing mechanisms can deter investment in sustainable projects;
- greenwashing risks - there is a risk that banks may overstate their sustainability credentials without delivering real impact, leading to reputational damage and regulatory scrutiny;

- governance and political challenges - weak governance structures, political misalignment, and the precedence of short-term political objectives over long-term sustainability goals can undermine sustainable banking efforts;
- operational complexity - large, process-oriented structures may be unsuited for the innovation and agility required to advance sustainability, especially in public development banks.

However, the transformation of banking towards sustainability also presents banks with numerous opportunities for growth.

The key opportunities are:

- innovation in sustainable products - the development of innovative financial products, such as green bonds, sustainability-linked loans and renewable energy financing, is booming. This market segment meets the growing demand for sustainable investment and opens new revenue streams for financial institutions;
- market differentiation - sustainable banking enables institutions to stand out in a crowded market and attract ESG-conscious customers and investors;
- access to capital - banks with strong sustainability credentials may benefit from improved access to funding and investment at favourable rates;
- leadership in sustainability - adopting responsible practices can significantly enhance a bank's reputation and attract clients and investors who prioritise social and environmental impact. A strong commitment to sustainability can differentiate banks and position them as leaders in the sector;
- leveraging advanced technologies - digital tools such as artificial intelligence and data analytics enable banks to optimise operations, reduce costs, and personalise green financing offers. They also encourage clients to adopt sustainable practices;
- facilitating strategic partnerships - banks can act as key intermediaries in cross-sector collaborations, creating strategic alliances to tackle global challenges, achieve the SDGs and promote sustainable economic development;
- promoting a resilient economy - by investing in sustainable projects and emerging communities, banks contribute to social well-being and foster a stable economic environment that can translate into sustained growth for their operations.

As the financial sector continues to evolve, sustainable banking will become the norm. Tighter regulatory frameworks, rising customer expectations, and technological innovation are making it easier for banks to measure, manage, and report on their sustainability performance. Those banks that lead the way in this area will not only contribute to a more sustainable future but also secure their long-term viability.

8. Conclusion

The paper examines how banks contribute to sustainable development through their dual roles as sustainable organisations and as providers of sustainable finance to clients. Synthesising academic and policy literature shows that internal ESG integration (strategy, governance, culture, operations) and external instruments (green and sustainability-linked products, inclusion, advisory) are mutually reinforcing: banks that embed sustainability in governance and risk frameworks are more likely to develop credible green portfolios and support client transition. At the same time, survey evidence from partner banks indicates that climate-risk analytics, data availability, and the alignment of metrics and targets remain major bottlenecks.

The analysis highlights several structural challenges - limited reliable client data, fragmented taxonomies, skills gaps, and the risk of greenwashing - but also significant opportunities in product innovation, market differentiation, and resilience. Conceptually, the paper contributes by clarifying banks' dual contribution to sustainable development and by proposing an internally/externally focused structure for challenges and opportunities that can be used in future empirical studies.

The study is limited by its qualitative and synthetic character and by its reliance on secondary sources. It does not provide new statistical tests of causality between sustainable practices and performance. Future research will extend this work by quantitatively assessing which combinations of internal capabilities and external instruments most effectively reduce climate and social risks, and by exploring the differential transition pathways of various bank types (e.g. state-owned vs private, global vs regional). For practitioners and regulators, the findings underscore the need to treat sustainability as an institutional transformation agenda, supported by robust data, clear transition plans and collaborative work with clients, rather than as a narrow product or reporting exercise.

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