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Jordan's green lending landscape: Policy-oriented descriptive assessment

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Jordan's Green Lending Landscape: Policy-Oriented Descriptive Assessment

Executive Summary

This paper provides a structured, policy-oriented assessment of green lending in Jordan's banking sector. It aims to inform policymakers, regulators, and financial sector stakeholders about the institutional landscape, operational practices, and key implementation challenges. It examines how green lending is defined, operationalized, disclosed, and governed, with a focus on the transition from fragmented sustainability practices (2021–2024) to a unified classification framework under the Jordan National Green Taxonomy (2026).

Jordan faces structural economic and environmental constraints that elevate the importance of green finance. The country is highly dependent on imported energy, exposed to global price volatility, and among the most water-scarce nations globally. Climate risks further compound these vulnerabilities, while limited fiscal space constrains public investment in green infrastructure. In a predominantly bank-based financial system, commercial banks serve as the primary channel for long-term credit allocation. Consequently, green lending has direct implications for investment patterns, resource efficiency, and climate resilience.

Empirical evidence shows that scaling green finance contributes positively to economic performance. It improves the quality of growth and directs capital toward more productive and high-tech sectors (Ouyang et al., 2023; Zhou and Guo, 2025). It also supports technological progress, innovation, and industrial upgrading (Tang and Huang, 2024), facilitates investment in renewable energy and low-carbon technologies (Wen et al., 2025), and enhances climate resilience (Zhang et al., 2025).

This study draws on sustainability disclosures of Amman Stock Exchange (ASE)-listed banks (2021–2024), semi-structured institutional interviews, and comparative international evidence. The interview component included email-based responses and phone discussions with banking institutions and firms involved in green financing activities. This allowed the study to capture operational practices, monitoring procedures, and demand-side experiences related to green lending. The study therefore documents the evolution and structural characteristics of green lending in Jordan before and during the introduction of a unified taxonomy framework. The findings reveal five central patterns:

1. Operational Activity with Limited Structural Weight: Green lending is institutionally present and expanding but remains modest as a share of total credit portfolios. Only a limited subset of banks discloses quantified green-to-total lending ratios integrated within governance and risk systems.

2. Uneven Institutional Maturity: Banks can be categorized into three stages: (Most institutions remain in the first two stages).

- Stage One: policy signalling and operational sustainability.
- Stage Two: product-level initiatives and bond issuance without portfolio transparency.

- Stage Three: quantified portfolio-level integration embedded in governance and risk.

3. Pre-2026 Definitional Fragmentation: Prior to the issuance of the national taxonomy, classification relied on internally developed criteria, donor frameworks, or institution-specific ESG interpretations. This heterogeneity constrained comparability, complicated supervisory oversight, and increased the risk of inconsistent labelling practices.

4. Operational Constraints and Capacity Gaps: Interview evidence indicates variation in screening, monitoring, and impact measurement practices. While origination screening is generally structured, post-disbursement monitoring is less standardized. Key constraints include documentation burdens, technical capacity limitations, insufficient standardized reporting templates, and limited client awareness.

5. Demand-Side Viability but Limited Outreach: Firms report that green financing improved the feasibility of economically viable investments, particularly in energy- and resource-intensive sectors. However, uptake remains concentrated, and firms emphasize insufficient proactive marketing and advisory engagement from banks.

The issuance of the Jordan National Green Taxonomy in January 2026 represents a structural institutional shift. By introducing activity-based screening criteria grounded in Substantial Contribution (SC), Do No Significant Harm (DNSH), and Minimum Social Safeguards (MSS), alongside a traffic-light classification system (green, amber, red), the taxonomy resolves the foundational definition problem and formally recognizes transition finance. This alignment aims to significantly reduce greenwashing risk and establishes a unified classification language across the financial system. However, classification alone does not ensure portfolio transformation.

International experience demonstrates that taxonomies achieve systemic impact only when paired with standardized disclosure requirements, supervisory integration, proportional implementation mechanisms, and monitoring frameworks. Accordingly, this paper advances the following policy recommendations:

- Gradual introduction of standardized portfolio-level disclosure metrics (e.g., green-to-total lending ratios and transition exposure shares).
- Integration of taxonomy alignment into prudential supervision and risk governance expectations.
- Time-bound monitoring mechanisms for transition (amber) activities.
- Proportional implementation pathways for SMEs to prevent exclusion.
- Expansion of risk-sharing and blended finance mechanisms through partnerships with international financial institutions.
- Targeted capacity-building and outreach initiatives to increase demand-side awareness.
- Dedicated regulatory guidance for taxonomy-aligned green and transition sukuk within Islamic banking.

This paper addresses a critical gap in early-stage green finance literature, where institutional structures remain under-documented despite growing policy adoption. Given the recency of both structured green lending (since 2021–2024) and the

introduction of the national taxonomy in 2026, the analysis is deliberately descriptive and implementation-oriented. At this stage, the objective is to document the emerging regulatory and institutional architecture rather than estimate causal impacts. Empirical assessment of portfolio reallocation, pricing effects, and risk differentials will require post-2026 longitudinal data.

Within this context, Jordan has transitioned from definitional ambiguity to regulatory clarity, as the institutional architecture for harmonized green finance has now been established. The central policy challenge therefore shifts to implementation: whether taxonomy alignment will translate into standardized disclosure, supervisory practice, measurable portfolio reallocation, and system-wide credit transformation. Ultimately, the trajectory of green lending in Jordan will depend not only on classification frameworks but on whether regulatory design, market incentives, and institutional capacity converge to support durable capital reallocation toward climate-resilient and resource-efficient economic activity

1. Introduction

Jordan's financial system is predominantly bank-based, with commercial banks representing the main channel of long-term credit allocation and project financing. As a result, any meaningful transition toward green finance in Jordan must occur through the banking sector.

At the same time, Jordan faces structural economic and environmental pressures that elevate the importance of green investment. The country remains highly dependent on energy imports, vulnerable to climate-related risks, and constrained by fiscal limitations that restrict large-scale public green investment. Under these conditions, mobilizing private capital through bank-based green lending becomes not only an environmental priority but an economic necessity.

Over the past few years, sustainability and ESG frameworks have gained visibility within Jordan's banking sector. Several banks have introduced green products, issued sustainable bonds, or embedded ESG considerations into governance structures. However, evidence from Amman Stock Exchange (ASE)-listed banks during 2021–2024 reveals uneven institutional maturity. A limited number of banks disclose quantified green lending portfolios integrated into risk systems, while others remain at the level of policy commitments or product announcements without portfolio-level transparency.

Prior to 2026, the absence of a unified national green taxonomy meant that banks relied on internally developed eligibility criteria, international donor guidelines, or institution-specific ESG frameworks to classify green loans. This heterogeneity constrained comparability, complicated supervisory oversight, and increased the risk of inconsistent labelling practices.

Against this background, the central policy problem addressed in this paper is:

How is green lending currently defined, structured, implemented, and governed within Jordan's banking sector, and what institutional and regulatory conditions shape its scale and future expansion?

This framing reflects the paper's deliberately descriptive, supply-side orientation.

The issuance of the Jordan National Green Taxonomy in January 2026 represents a structural turning point in this evolution. By introducing standardized technical screening criteria based on Substantial Contribution (SC), Do No Significant Harm (DNSH), and Minimum Social Safeguards (MSS), the taxonomy addresses the definitional fragmentation that characterized the pre-2026 period. However, its implementation phase remains ongoing, and its effect on disclosure convergence and portfolio reallocation cannot yet be empirically observed.

Accordingly, the objectives of this policy paper are to map green lending practices, classify banks by maturity stage based on disclosure depth, governance integration, and portfolio metrics, identify operational processes, constraints, and demand-side frictions, assess how the 2026 taxonomy changes classification architecture and alignment incentives, and derive implementation-ready policy measures to improve transparency, comparability, and scalable credit expansion. To achieve these objectives, the study

adopts a qualitative and descriptive research design that combines document analysis of sustainability reports of ASE-listed banks (2021–2024) with semi-structured interviews conducted with banks and firms involved in green financing activities, incorporating insights from international experience to contextualize operational practices and challenges. This approach allows the study to capture both publicly disclosed institutional practices and operational experiences related to the implementation of green lending.

By combining sustainability disclosures, institutional interviews, and comparative international lessons, this paper provides an evidence-based framework designed to support policymakers, regulators, and financial sector stakeholders in understanding the current institutional landscape of green lending in Jordan, operational practices, and implementation challenges. The study aims to guide the development of policies and regulatory measures that enhance transparency, comparability, and scalable green finance within the banking sector.

2. Literature Review and Global Evidence

The global acceleration of green finance is closely linked to the Paris Agreement's objective of aligning financial flows with low-emissions and climate-resilient development (IDFC, 2023). As green finance markets expanded, policymakers shifted from broad ESG narratives toward operational credibility mechanisms, including clear eligibility rules, formal classification systems, traceability of funds, and structured disclosure to reduce greenwashing and improve comparability.

2.1.Use-of-Proceeds Frameworks

A foundational approach to labelled debt has been the use-of-proceeds model, where funds are earmarked for eligible projects and backed by governance and reporting obligations. The International Capital Market Association's Green Bond Principles (GBP) established expectations around project eligibility, proceeds management, and post-issuance reporting, shaping market discipline through annual allocation and impact reporting (ICMA, 2021). In parallel, the Green Loan Principles (GLP) extend this framework to loan markets, requiring documented evaluation processes, proceeds tracking, and periodic reporting (LSTA et al., 2025). Together, these frameworks show that green lending is structured around formalized documentation, governance, and transparency.

2.2.Market Expansion and Taxonomies

The labelled sustainable debt market has grown rapidly. By 2024, cumulative issuance of green, social, sustainability, and sustainability-linked instruments reached USD 6.9 trillion, with USD 5.7 trillion aligned under climate bonds methodologies (Climate Bonds Initiative, 2024). As issuance scaled, jurisdictions moved from principles-based approaches toward rule-based classification systems and standardized disclosure. The European Union represents the most advanced example, with the EU Taxonomy Regulation institutionalizing activity-based screening grounded in Substantial Contribution, Do No Significant Harm, and Minimum Safeguards (European Parliament and Council of the European Union, 2020). Complementary regulations, such as the European Green Bond Regulation and the European Banking Authority's

ESG disclosure standards, reinforced integrity and comparability through standardized templates and supervisory oversight (European Parliament and Council of the European Union, 2023; European Banking Authority, 2022). The policy lesson is clear: taxonomies are most effective when paired with structured disclosure requirements.

2.3.Sovereign Green Bond Programs

Sovereign green bond programs provide operational examples of monitoring and reporting. The UK's Green Financing Programme, France's OAT verte, Germany's green federal securities, and the Netherlands' sovereign bonds institutionalize allocation and impact reporting as core integrity mechanisms (UK Government, 2024; Agence France Trésor, 2024; Federal Ministry of Finance Germany, 2024; Dutch State Treasury Agency, 2020). Emerging market experiences, such as Chile's sustainable bond framework, further demonstrate how structured reporting, through allocation, eligibility, and impact reports supports transparency and alignment with international standards (Ministry of Finance of Chile, 2021).

2.4.Role of Multilateral Development Banks

Multilateral Development Banks (MDBs) have played a catalytic role in market formation and credibility norms. The World Bank has issued green and sustainable development bonds since 2008, institutionalizing impact reporting aligned with GBP and Sustainability Bond Guidelines (World Bank, 2024, 2025). The International Finance Corporation (IFC) reports cumulative green bond issuances exceeding USD 10 billion, emphasizing blended finance and mobilization mechanisms (IFC, 2025). The European Investment Bank pioneered green bond issuance, having issued the first Climate Awareness Bonds in 2007, and has contributed to strengthening investor confidence and expanding investment in climate-related projects (European Investment Bank, 2017). MDBs matter for commercial banking systems because they combine issuance with risk-sharing instruments, technical assistance, and governance structures that reduce barriers for banks expanding green lending.

2.5.Islamic Finance

Islamic finance adds another major channel for green capital mobilization through Sharia-compliant instruments, particularly green sukuk. Malaysia's Sustainable and Responsible Investment (SRI) Sukuk Framework enabled sukuk issuance aligned with sustainable objectives (Securities Commission Malaysia, 2014). Indonesia has developed green sukuk practices supported by regulatory frameworks and reporting requirements, with an emphasis on transparency, standardisation, and verification mechanisms (COMCEC, 2025), while the Islamic Development Bank has established sustainable finance frameworks incorporating structured processes for project selection, proceeds management, and reporting (Islamic Development Bank, 2025).These instruments embed sustainability principles within Sharia governance, underscoring compatibility with green finance goals.

2.6.Financial Incentives and Risk Governance

Global evidence also highlights financial incentives, with some sovereign green bond issuances exhibiting a marginal "greenium" or pricing benefit, reflecting strong investor

demand for credible sustainable assets (Climate Bonds Initiative, 2024). In banking systems, green finance strengthens risk governance by improving data systems, risk assessment processes, and portfolio monitoring, especially as regulators increasingly expect climate risks to be integrated into risk management frameworks (European Banking Authority, 2022).

2.7.Theoretical Perspectives

From a theoretical perspective, financial intermediation theory explains why green lending matters: evidence suggests banks reduce information asymmetries and enhance credit assessment processes, facilitating the allocation of financial resources (Liu et al., 2025). In the context of green finance, capital is increasingly directed toward low-carbon and environmentally sustainable activities, reflecting the influence of environmental factors on financing behaviour and credit allocation (Liu et al., 2025).

Stakeholder and institutional perspectives emphasize that banks operate within environments shaped by regulatory requirements and the expectations of customers, investors, and society. These pressures have made environmental responsibility and sustainability reporting a primary business requirement for financial institutions (AlSmadi and Al-Omoush, 2025). As regulatory frameworks become more stringent, banks are encouraged to adopt green banking practices and integrate sustainability into their operations (Lapinskiene et al., 2025; AlSmadi and Al-Omoush, 2025).

2.8.Macroeconomic and Developmental Implications

Beyond governance and classification, green finance is increasingly justified on macroeconomic grounds. Evidence suggests that well-designed frameworks contribute to growth, employment, energy security, and industrial upgrading. IRENA and ILO (2023) estimates that renewable energy employment reached approximately 13.7 million jobs globally in 2022 and is expected to continue expanding in the coming years, while the ILO (2018) estimates that limiting global warming to 2°C could result in a net gain of 18 million jobs worldwide by 2030. At the firm level, green credit regulation in China promoted innovation among polluting enterprises, while climate-related financial risk reduced debt financing capacity, reinforcing the importance of green credit allocation (Xu et al., 2023; Liu et al., 2025). Cross-country evidence shows that green bond issuance significantly promotes renewable energy production, particularly in carbon-intensive economies (Alharbi et al., 2023). MDBs further combine transparency and standardized reporting with financial instruments to mobilize private capital and expand access to climate finance, while supporting investor engagement in environmentally aligned sectors (World Bank, 2024; IFC, 2025).

Taken together, green lending scales most effectively when supported by unified classification systems, standardized disclosure requirements, credible monitoring and reporting mechanisms, and supervisory integration. Fragmented definitions produce uneven adoption and heterogeneous disclosure, whereas taxonomy-based alignment enhances comparability and reduces greenwashing risk. For Jordan, the adoption of a national taxonomy in 2026 represents a foundational step, but effective transformation will require disclosure harmonization, portfolio-level transparency, and integration into risk management frameworks.

3. Green Lending in Jordan: Descriptive Evidence from Sustainability Reports (2021–2024)

Jordan's financial system is predominantly bank-based, with 20 licensed banks under the supervision of CBJ. Of these, 15 are Jordanian and 5 foreign of which 16 are conventional and 4 are Islamic. Long-term project financing and corporate lending remain concentrated within commercial banks, making sustainability and ESG disclosures of ASE-listed banks central to understanding green lending development.

A review of sustainability reports (2021–2024) reveals differentiated institutional maturity in green lending integration. While sustainability reporting has expanded, quantified portfolio-level disclosure remains limited to a small subset of institutions. Many disclosures are confined to governance commitments, product announcements, or operational initiatives without aggregate portfolio transparency.

At the most advanced level, certain banks disclose measurable green lending portfolios integrated into governance and risk systems:

- **Bank al Etihad** reported JOD 206.6 million in booked green loans in 2024, alongside a green bond portfolio share representing 13% of total bond exposure. Integration extends into retail portfolios, with 42% of auto loans directed toward electric mobility and 55.8% of newly booked auto loans in 2024 allocated to electric vehicles.
- **Jordan Kuwait Bank (JKB)** demonstrates multi-year consistency, with green lending rising from JOD 66.78 million in 2022 to JOD 78.3 million in 2024. A USD 50 million Green Bond was fully allocated to wastewater treatment projects, while broader green exposure reached USD 110.4 million. Governance structures include Environmental and Social Management Systems (ESMS).
- **Housing Bank** discloses annual green lending figures (JOD 18.9 million in 2022, JOD 25 million in 2024), though green loans remain below 1% of total credit facilities, indicating transparency but limited structural weight.

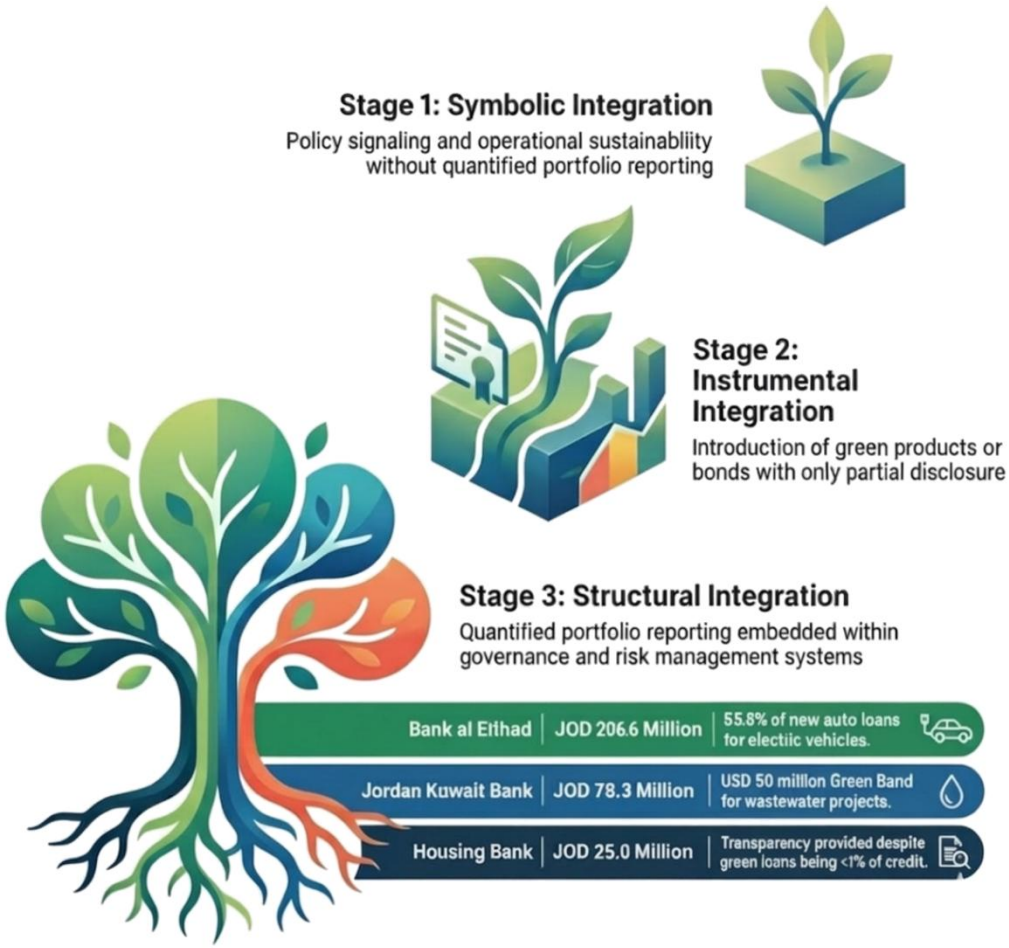
A second tier of institutions reflects governance alignment and capital market engagement without full portfolio transparency:

- **Arab Bank** introduced a Sustainable Finance Framework and issued USD 250 million in Sustainable AT1 capital securities, publishing allocation and impact metrics but not aggregate green-to-total lending ratios.
- **Ahli Bank** issued Jordan's first locally USD 50 million Sustainability Bond and reports that 9% of its SME portfolio is allocated to green financing, though total exposure is undisclosed.
- **Capital Bank** integrates SEMS into credit decision-making and aligns with CBJ's Green Finance Strategy but does not publish aggregate portfolio values.
- **Bank of Jordan** reports strong growth in eco-friendly auto lending (+550% in 2022, +16.7% in 2024), though without absolute portfolio disclosure.

- **ABC Bank** reports JOD 0.303 million in sustainable finance in 2023, primarily linked to EV and hybrid vehicle loans, while developing its Sustainable Finance Framework.

At the lower disclosure tier, Arab Jordan Investment Bank, Cairo Amman Bank, Investbank, and Jordan Commercial Bank reference renewable energy financing and ESG commitments but do not disclose quantified portfolios or bond issuances. Within Islamic banking, Jordan Islamic Bank and Safwa Islamic Bank emphasize renewable energy financing and Sharia alignment; Safwa introduced a Climate Change Policy in 2024. However, neither institution reports quantified exposure or issues green sukuk during the review period. Figure 1 illustrates the three-stage progression of green lending maturity across Jordanian banks.

Figure 1: Stages of Green Lending Maturity in Jordanian Banks



Source: Developed by the researcher based on data from banks sustainability reports

Overall, sustainability reporting reveals a three-stage progression:

- **Stage 1:** Operational sustainability and policy signalling.
- **Stage 2:** Product-level initiatives and bond issuance without portfolio transparency.
- **Stage 3:** Quantified portfolio-level integration embedded within governance and risk systems.

Only a limited number of banks reached Stage 3, while most remain in earlier phases. This uneven progression reflects pre-2026 definitional fragmentation, absence of unified classification standards, limited comparability, and variation in disclosure depth. These findings indicate that while green lending is operationally present across Jordan's banking sector, its scale and disclosure depth remain uneven, highlighting the importance of standardized classification and reporting frameworks to enhance comparability and transparency.

4. Interview-Based Institutional Evidence: Operationalization of Green Lending in Jordan

While sustainability reports provide portfolio figures and governance commitments, they do not fully reveal how green lending is operationalized. To address this, semi-structured interviews were conducted with banks and firms to clarify classification, monitoring, and investment practices.

A total of ten banks were contacted, of which four non-Islamic banks participated. Three provided responses via email, complemented by follow-up phone discussions for additional details, while one participated through a phone discussion. Additionally, two firms operating in energy and resource-intensive sectors participated via email to capture demand-side perspectives. Interviews were conducted between January and February 2026 using a semi-structured questionnaire covering 35 core questions for banks and 27 for firms, addressing green loan classification, credit assessment, monitoring practices, operational constraints, and firm-level experiences with green financing. All responses were anonymized and reported in aggregate at the request of participants to encourage open discussion.

4.1.Supply-Side Findings (Banks)

Banks report that green lending is embedded within ESG governance and risk management structures, though implementation depth varies. Prior to 2026, classification relied on internal criteria, donor frameworks, or sustainability guidelines rather than a unified national taxonomy. Loans were typically tagged as "green" at origination, coordinated across relationship managers, credit risk departments, sustainability units, and committees. Tracking systems exist but differ in sophistication.

Credit assessment follows conventional risk evaluation but includes technical validation steps such as feasibility studies, energy audits, or certifications. Energy efficiency projects are perceived as low risk due to measurable cost savings, while innovative technologies face higher performance risk. Monitoring practices vary: some banks apply use-of-proceeds verification and request periodic reporting, while others rely on standard credit monitoring without systematic environmental impact measurement. Screening at origination is generally stronger than post-disbursement monitoring, reflecting capacity constraints and lack of standardized templates.

Key constraints identified include:

- Definitional ambiguity (pre-2026)
- Documentation burdens
- Limited standardized reporting

- Limited client awareness
- Technical capacity gaps

4.2.Demand-Side Findings (Firms)

Firms in energy- and resource-intensive sectors report that green financing improved investment feasibility. Without green loans, projects would likely have been delayed, scaled down, or financed with less advanced technologies. Outcomes include:

- Improved energy and water efficiency
- Reduced operating costs
- Enhanced production stability
- Strengthened compliance with environmental regulations
- Employment stability and increased demand for technical expertise

Importantly, firms emphasized that financing decisions were primarily economically motivated. Green loans enabled viable investments rather than being pursued solely for environmental reasons.

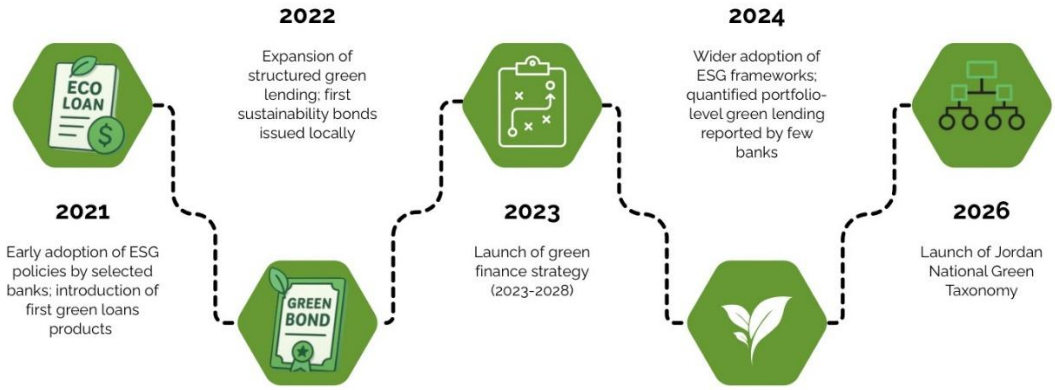
However, the interviewed firms reported that banks do not exert sufficient effort to market green loan products appropriately. Firms indicated that awareness remains limited and that banks should play a more proactive role in informing and educating their clients about available green financing options, eligibility criteria, and potential benefits. Greater outreach and communication could significantly enhance uptake.

Overall, the interview evidence confirms that operational capacity constraints, documentation requirements, and limited client awareness remain important barriers to scaling green lending, suggesting that regulatory guidance and targeted capacity-building initiatives could significantly improve implementation.

5. The Jordan National Green Taxonomy: Institutional Transformation and Structural Implications

The issuance of the Jordan National Green Taxonomy in January 2026 represents a structural turning point in the evolution of green finance within the country's banking system. Prior to its introduction, green lending practices were characterized by institutional heterogeneity, fragmented definitions, and uneven disclosure standards. Evidence from sustainability reports (2021–2024) and interview findings demonstrates that banks relied largely on internally developed eligibility criteria, donor frameworks, or institution-specific ESG guidelines to classify green exposures. Figure 2 presents key milestones in Jordan's green finance sector. It contextualizes the transition from early-stage green lending to a unified regulatory framework.

Figure 2: Timeline of Green Finance Development in Jordan (2021–2026)



Source: Developed by the researcher based on data from banks sustainability reports and official policy documents.

While some institutions disclosed quantified portfolios and embedded sustainability within governance systems, others limited reporting to policy commitments or product announcements without portfolio-level transparency. This fragmentation constrained comparability, complicated supervisory oversight, and increased the risk of inconsistent labelling practices (CBJ et al., 2026).

5.1.Structural Innovations

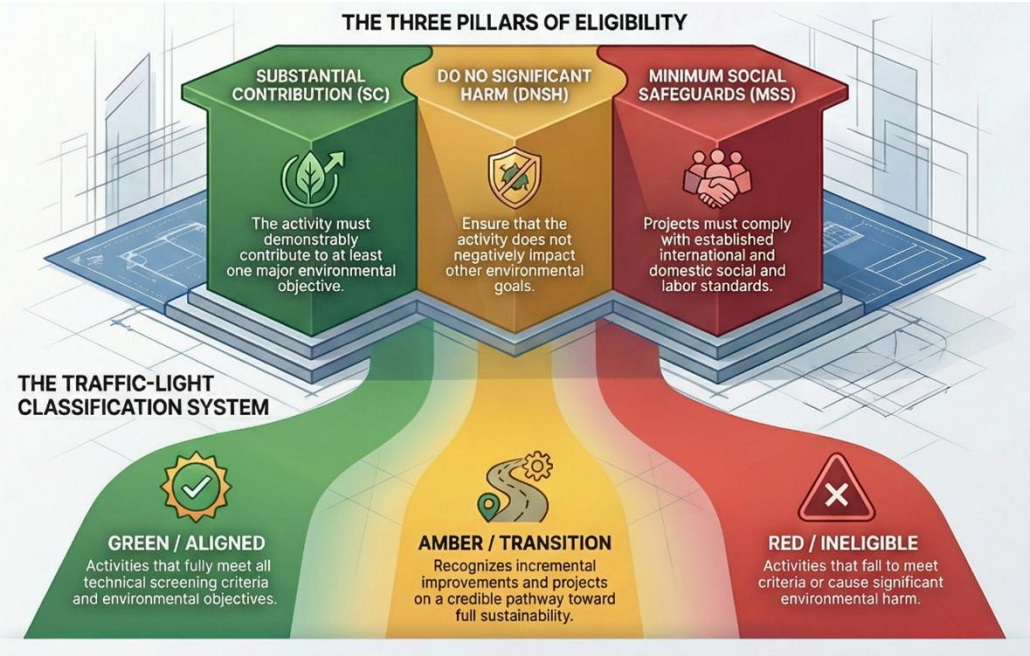
The taxonomy addresses this foundational "definition problem" by introducing an activity-based classification architecture grounded in three pillars:

- Substantial Contribution (SC)
- Do No Significant Harm (DNSH)
- Minimum Social Safeguards (MSS)

This design shifts green identification from narrative signalling to rule-based technical screening. An economic activity qualifies as taxonomy-aligned only if it demonstrably contributes to at least one environmental objective, does not significantly harm others, and complies with social and labor safeguards. This multi-layered screening substantially raises the threshold for what can be labelled "green," reducing ambiguity and strengthening environmental integrity.

A notable feature is the traffic-light classification system, distinguishing between Green (aligned), Amber (transition), and Red (ineligible) activities. This structure formally recognizes transition finance, particularly relevant in Jordan where many projects reflect incremental improvements rather than full decarbonization. By incorporating an amber category, the taxonomy provides a credible pathway framework that acknowledges improvement trajectories without overstating alignment.

Figure 3: The 2026 National Green Taxonomy Structural Innovation



Source: Developed by the researcher based on CBJ et al. (2026)

5.2.Comparative International Lessons

International evidence underscores the importance of unified classification systems. In the EU, taxonomy alignment is operationalized through standardized KPIs such as the Green Asset Ratio (GAR), enabling comparability of exposures across banks (European Banking Authority, 2022). China's Green Bond Endorsed Projects Catalogue standardised eligible activities (People's Bank of China, 2021), while empirical evidence suggests that such policies contributed to increased green investment and innovation (Xu et al., 2023). These experiences suggest that Jordan's taxonomy can influence credit allocation patterns when supported by supervisory integration and policy incentives.

5.3.Structural Gaps

Although this first version of the taxonomy serves as a foundational living document intended to be updated periodically to reflect technological progress, evolving science, and shifts in national priorities, several structural gaps remain that are slated for future implementation phases.

- **Disclosure requirements:** The taxonomy does not yet prescribe standardized templates or mandatory portfolio-level reporting ratios. Without harmonized metrics such as aligned lending share or sectoral exposure ratios, disclosure convergence may evolve gradually.
- **Transition finance monitoring:** While the amber category recognizes incremental improvements, its credibility depends on clear improvement pathways and time-bound monitoring to prevent indefinite classification.
- **Implementation capacity:** Meeting technical screening criteria requires substantial data and documentation, which may pose challenges for SMEs.

International practice highlights the need for phased thresholds and proportional implementation to avoid exclusion (ASEAN Taxonomy Board, 2025).

- **Scope of environmental objectives:** The taxonomy currently prioritizes climate mitigation, adaptation, and sustainable water use. Other objectives, such as circular economy and biodiversity, are incorporated primarily through safeguards. As a living framework, it may expand over time, similar to the EU's progressive updates (European Parliament and Council of the European Union, 2020).
- **Supervisory integration:** Long-term effectiveness depends on embedding taxonomy alignment into prudential oversight, stress testing, and risk governance expectations. Without supervisory reinforcement, classification improvements alone may not significantly alter portfolio allocation behaviour.

5.4.Institutional Significance

Taken together, the Jordan National Green Taxonomy establishes the infrastructure required to harmonize green lending practices across the banking sector. It provides a unified definition of environmentally sustainable activities, formalizes transition finance, strengthens integrity criteria, and lays the groundwork for improved transparency. However, because the framework was introduced only in 2026, its measurable impact on credit allocation, pricing, and disclosure convergence cannot yet be empirically observed. Its effectiveness will depend on supervisory integration, standardized reporting, verification mechanisms, and iterative refinement aligned with international best practice.

The taxonomy therefore represents a foundational institutional reform for Jordan's financial system. However, its long-term effectiveness will depend on the extent to which taxonomy alignment is embedded within disclosure frameworks, supervisory practices, and bank-level risk management systems.

6. Conclusion

Green lending in Jordan is institutionally embedded and operationally active, yet remains structurally fragmented and modest in scale. Evidence from sustainability reports (2021–2024) and interview findings demonstrates that while some banks have advanced toward quantified portfolio integration, most remain at earlier stages of policy signalling or product-level initiatives. This uneven progression reflects pre-2026 definitional fragmentation, limited comparability, and inconsistent disclosure practices.

The introduction of the Jordan National Green Taxonomy in January 2026 resolves this foundational "definition problem" by establishing a unified classification framework grounded in Substantial Contribution (SC), Do No Significant Harm (DNSH), and Minimum Social Safeguards (MSS). The taxonomy formalizes transition finance through its traffic-light system, strengthens environmental integrity criteria, and creates the institutional infrastructure necessary for harmonization. However, taxonomy adoption alone does not guarantee systemic transformation. Its long-term effectiveness

will depend on supervisory integration, standardized disclosure requirements, proportional implementation for SMEs, and capacity-building across banks and firms.

International experience underscores that classification systems achieve credibility and comparability only when paired with structured disclosure, monitoring frameworks, and supervisory oversight. Jordan's taxonomy provides the foundation for such integration, but measurable impacts on portfolio reallocation, pricing dynamics, and disclosure convergence cannot yet be observed. The next phase of Jordan's green finance evolution will therefore be defined not by definitional clarity alone, but by whether classification translates into systemic changes in credit allocation, transparency, and investment scale.

Jordan now stands at a critical implementation transition point. The ambiguity of the pre-2026 period has been addressed, and the policy challenge has shifted toward measurable portfolio transformation. Achieving this requires coordinated regulatory design, enhanced risk-sharing mechanisms, and institutional capacity-building. If effectively implemented, green lending can evolve from targeted initiatives into system-wide credit reallocation, supporting climate resilience and sustainable economic transformation.

Monitoring the implementation phase of the Jordan National Green Taxonomy will therefore be critical for assessing whether early-stage policy architecture translates into measurable financial system transformation.

7. Policy Recommendations

The evolution of green lending in Jordan demonstrates meaningful institutional progress but also structural fragmentation in classification, disclosure, and scale. The introduction of the Jordan National Green Taxonomy provides the foundation for harmonization; however, international experience indicates that classification alone is insufficient to generate deep portfolio transformation. Effective scaling of green finance requires coordinated regulatory design, supervisory integration, and market incentives. Building on the institutional evidence presented above, the following policy measures aim to support the effective implementation and scaling of green lending in Jordan's banking sector.

A. Standardized Disclosure Requirements

While the taxonomy defines eligible activities, the absence of harmonized reporting metrics limits comparability across institutions. Regulators should gradually introduce standardized portfolio-level disclosure requirements, including:

- Green-to-total lending ratios
- Sectoral exposure breakdowns
- Transition (amber) exposures

International evidence from the European Union shows that taxonomy-linked key performance indicators enhance transparency and facilitate supervisory oversight (European Banking Authority, 2022). In Jordan, phased implementation would allow institutions to adapt while improving comparability.

B. Supervisory Integration

Taxonomy adoption must be embedded within prudential oversight, stress testing, and credit risk governance. Supervisory guidance should clarify expectations for taxonomy-aligned portfolio reporting and integrate environmental criteria into risk management frameworks. Without supervisory reinforcement, classification improvements alone may not significantly alter portfolio allocation behaviour.

C. Transition Finance Monitoring

The taxonomy's Amber category provides a credible pathway for incremental improvements. However, its effectiveness depends on clearly defined transition trajectories, periodic review mechanisms, and the gradual phasing out of transitional activities, ensuring that transition finance remains time-bound and aligned with progression toward green classification

D. Proportional Implementation for SMEs

Compliance with technical screening criteria may pose challenges for smaller firms. Regulators should introduce phased compliance mechanisms and proportional thresholds to avoid excluding SMEs from green finance participation. This approach balances credibility with inclusivity, ensuring broader access to sustainable credit.

E. Risk-Sharing and Blended Finance

Expanding risk-sharing instruments and blended finance mechanisms is essential to de-risk green lending, particularly for SMEs and industrial firms. Partnerships with international financial institutions such as IFC, EIB, and EBRD should be leveraged to strengthen guarantees, mobilize private capital, and support bond market development.

F. Capacity-Building and Awareness

Banks and firms require technical support to meet taxonomy requirements and prepare feasibility assessments. Capacity-building initiatives should focus on:

- Training for bank staff on taxonomy-aligned credit assessment
- Awareness campaigns for firms on available green products
- Development of standardized reporting templates

G. Islamic Green Finance Implementation

Although the taxonomy explicitly recognizes green sukuk and identifies Islamic banks as intended users, implementation remains incomplete. Competent authorities should issue dedicated guidance for taxonomy-aligned green/transition sukuk (e.g., use-of-proceeds verification, disclosure templates, and reporting expectations) to support consistent market practice and scale-up of Sharia-compliant sustainable finance.

H. Aggregate Public Reporting

Periodic aggregate reporting on national green finance flows should be introduced to enhance transparency and accountability. Public disclosure of system-wide green lending ratios and sectoral allocations would strengthen market confidence and support policy evaluation.

8. Further Research Agenda

Despite providing a structured assessment of green lending in Jordan, this study is subject to several important limitations.

First, data availability remains constrained. Portfolio-level green exposure is not uniformly disclosed across banks. Some institutions provide partial figures, while others limit disclosure due to confidentiality concerns, competitive considerations, or the absence of mandatory standardized reporting requirements. As a result, comparability across institutions is limited.

Second, the analysis relies primarily on sustainability reports of ASE-listed banks, which represent only a subset of the banking system and reflect varying reporting depth and institutional maturity.

Third, green lending itself is relatively new in Jordan. Most banks began introducing structured green loan products around 2021, with several others launching formal green lending frameworks only in 2022. This short time horizon limits the ability to observe long-term portfolio evolution, risk performance, pricing effects, or structural credit reallocation trends. The limited time series also constrains the possibility of conducting robust econometric impact analysis at this stage.

Fourth, the Jordan National Green Taxonomy was introduced only in January 2026. Sufficient post-implementation data are not yet available to assess whether taxonomy alignment translates into measurable portfolio transformation.

Finally, interview evidence, while informative, is based on a limited number of institutions and firms and cannot capture the full diversity of practices across the sector.

Given these constraints, future research should move beyond descriptive mapping toward implementation-focused, institution-level, and impact-oriented analysis.

8.1. Bank-Level Case Studies During Taxonomy Implementation

A key avenue for future research would involve structured partnerships with one or more banks to conduct in-depth case studies during the taxonomy implementation phase. Such research could examine:

- How taxonomy screening criteria are operationalized internally
- Changes in credit approval processes post-2026
- Adjustments in internal risk assessment models
- Evolution of green loan tagging and monitoring systems
- Internal governance and capacity-building dynamics

Access to internal portfolio data would allow researchers to assess whether taxonomy adoption produces measurable changes in credit allocation behaviour.

8.2. Marketing, Outreach, and Uptake

Given that green lending is still in its early stages (since 2021–2022), future research should examine how banks market these relatively new products and whether limited uptake is partly a function of insufficient outreach.

Research questions could include:

- How actively do banks promote green loan products to SMEs and corporates?
- Does targeted awareness-raising increase application rates?
- Are firms aware of eligibility criteria and potential cost advantages?
- Does advisory support improve uptake?

A pilot-based or quasi-experimental design within a partner bank could provide causal insight into awareness and demand-side frictions.

8.3. Loan Processing and Administrative Burden

Given the novelty of green loans and additional screening requirements, future research should analyze:

- Differences in processing time between green and conventional loans
- Additional documentation burdens
- Cost implications for firms
- Internal operational constraints within banks

Such process-level analysis would clarify whether procedural complexity constrains scaling.

8.4. Post-2026 Quantitative Portfolio Analysis

Once sufficient time has passed under the taxonomy regime, empirical research could assess:

- Changes in green-to-total lending ratios
- Sectoral credit reallocation patterns
- Pricing differentials (testing for a lending "greenium")
- Comparative default rates between green and non-green loans

This would move the literature from descriptive institutional mapping toward measurable financial and economic outcomes.

8.5. Transition Finance and Amber Classification

Future longitudinal research should evaluate whether "amber" classified projects demonstrate measurable improvement over time, ensuring that transition finance does not become permanent labelling without environmental progress.

8.6. Islamic Green Finance Implementation

Given the growing relevance of Islamic banking in Jordan, further research should assess how taxonomy alignment interacts with Sharia governance, and whether green sukuk issuance can scale under standardized disclosure frameworks.

Overall, because green lending in Jordan is both institutionally recent (since 2021–2022) and operating under a newly introduced taxonomy (2026), the research agenda naturally shifts toward implementation monitoring, behavioural change analysis, and longitudinal portfolio evaluation. The critical question for future work is whether early-

stage policy architecture translates into measurable, system-wide credit transformation over time.

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