

Bridging the operational gap: Integrating ESG considerations into corporate lending in Kazakhstan's second tier banks

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Abstract

The strategic case for treating environmental, social, and governance (ESG) risks as credit relevant is now widely accepted, yet the operational mechanics of embedding these risks into everyday corporate lending remain poorly understood, particularly within emerging banking markets. This study examines how ESG considerations are incorporated across the corporate lending cycle of second tier banks in Kazakhstan and identifies where practical breakdowns occur. Using process mapping, gap analysis, and structured benchmarking against six international banks, and drawing on regulatory guidance, supervisory reports, and institutional disclosures as evidence, the analysis traces ESG integration through each stage, from origination and due diligence to credit assessment, transaction structuring, and post disbursement monitoring. The central finding is that Kazakhstan's implementation gap is operational rather than strategic: banks recognize ESG as financially material and have built governance structures to support it, yet sustainability signals weaken as they move deeper into the credit process. ESG shapes screening and due diligence and informs expert judgment, but it rarely reaches internal rating models, pricing, covenant design, or portfolio steering. Two interdependent constraints, methodological inconsistency and uneven borrower disclosure, explain much of this attenuation. International practice suggests that the appropriate remedy is not a parallel ESG framework but the strengthening of existing credit infrastructure. The paper contributes a stage specific diagnostic of ESG attenuation and a proportionate, phased integration framework calibrated to an emerging market banking sector, offering supervisors and lenders a pathway toward more consistent, forward looking credit underwriting.

Keywords: ESG Integration, Corporate Lending, Credit Risk Management, Second Tier Banks, Emerging Markets, Kazakhstan, Sustainable Finance

JEL Classification: G21, G32, M14, O16, Q56

1. Introduction

Sustainability risk has migrated from the periphery of banking to the centre of credit analysis. Supervisors now expect environmental, social and governance (ESG) factors to be treated as ordinary sources of financial risk, on the grounds that they can erode borrower resilience, degrade portfolio quality and, in aggregate, threaten financial stability (BCBS, 2022; EBA, 2021). The debate over whether ESG belongs in credit decisions has, for practical purposes, been settled. What remains contested is the mechanism—how a bank moves from a published ESG policy to a lending decision that consistently prices, structures and monitors sustainability risk alongside leverage, liquidity and collateral. The distance between commitment and practice is easy to underestimate. Many banks maintain sustainability strategies, exclusion lists and disclosure frameworks while their underwriting continues to run on conventional financial analysis, with ESG appended as supplementary commentary. Environmental and social review is often performed during due diligence and then quietly discarded before it can shape an internal rating, a pricing grid or a covenant package (Weber, 2017; Krueger et al., 2020). Where this happens, banks may carry risks that will only surface over a multi-year horizon—precisely the horizon over which a corporate loan is repaid.

For Kazakhstan the question is not academic. Second-tier banks remain the principal channel of finance for large corporate borrowers concentrated in energy, mining, manufacturing, transport and infrastructure—sectors unusually exposed to transition pressure and tightening regulation. At the same time, ESG disclosure standards, taxonomies and assessment methodologies are still maturing. The result is a demanding managerial problem: strengthen credit risk management against slow-moving sustainability risks without dismantling established lending processes or importing methodologies the local market cannot yet support. The empirical literature has largely bypassed this problem. Studies of ESG and credit have concentrated on listed firms in advanced markets and on the statistical link between ESG scores and outcomes such as spreads, ratings or default (Bellucci et al., 2022; Capasso et al., 2020). Comparatively little work examines how ESG is operationally embedded inside a lending process, and less still addresses emerging-market banks whose data environments and institutional capacity differ sharply from those of global institutions. This paper addresses that gap by treating corporate lending as a sequence of decisions and locating, stage by stage, where ESG enters, where it fades and why.

The choice of setting is deliberate rather than incidental. Kazakhstan combines features that make the transmission problem unusually visible: a bank-centred financial system, a corporate book concentrated in transition-exposed industries, an actively developing regulatory and taxonomy framework, and a disclosure environment still far from the standardisation taken for granted in advanced markets. These conditions are shared, in varying degrees, across many emerging economies, which gives the case analytical reach beyond its borders. Studying how ESG behaves inside the credit process under precisely these constraints offers a template for reasoning about

integration wherever the sustainable-finance architecture has outpaced the analytical routines meant to use it.

Three questions organise the analysis. First, at which points of the corporate lending cycle do ESG considerations currently influence decisions in Kazakhstan's second-tier banks, and where do they lose traction? Second, what separates domestic practice from the approaches of leading international banks, and which of those approaches can be realistically transplanted? Third, how can ESG be embedded more consistently without overturning existing credit risk management? The remainder of the paper reviews the relevant literature and isolates the research gap, sets out a qualitative, practice-oriented methodology, presents a stage-by-stage diagnosis of integration, benchmarks that diagnosis against international practice, discusses the findings against prior work, and closes with a phased framework and its implications.

2. Literature Review

Understanding of ESG in finance has shifted from a reputational lens to a risk lens. Early treatments equated ESG with corporate social responsibility and voluntary ethical conduct—matters of stakeholder relations rather than enterprise value. That framing eroded as evidence accumulated that environmental, social and governance factors bear on profitability, operational resilience and the cost of capital (Friede et al., 2015; Eccles et al., 2014). Within banks, ESG is now read less as a separate agenda than as information about risks that conventional financial indicators capture late, if at all. For credit specifically, the relevant channel is repayment capacity over the life of an exposure. Work on the cost of debt reports that weaker environmental and governance profiles are associated with higher borrowing costs and adverse rating actions, while stronger profiles correlate with lower default risk and greater resilience (Goss & Roberts, 2011; Oikonomou et al., 2014; Bellucci et al., 2022). Climate exposure has attracted particular attention because transition and physical risks can impair cash flows well before they register in historical accounts (Capasso et al., 2020; Krueger et al., 2020). The common thread is temporal: ESG offers forward-looking signal in a discipline that has traditionally leaned on backward-looking data.

Supervisors have converged on a consistent instruction. Rather than endorsing standalone sustainability ratings, the Basel Committee and the European Banking Authority direct banks to fold material ESG risks into existing governance and credit risk frameworks—into internal ratings, scenario analysis, concentration limits and monitoring (BCBS, 2022; EBA, 2021). International market bodies echo this integrationist stance, framing ESG as an extension of established due diligence and structuring rather than a parallel process (IFC, 2023; Loan Market Association, 2023). Guidance, in other words, already specifies the destination; what it does not supply is a route for banks operating with thin data and limited specialist capacity. A persistent obstacle running through this literature is measurement. ESG ratings from different providers diverge substantially for the same firm, which weakens their reliability as inputs to credit decisions and complicates any attempt to compare borrowers on common terms (Berg et al., 2022). Divergence

of this kind matters more for lenders than for portfolio investors, because a single inconsistent signal can distort an individual underwriting decision rather than average out across a diversified book. The distinction is often blurred in a literature that borrows measurement practices from equity research, where the unit of decision is a diversified allocation rather than a bilateral exposure; what is tolerable noise for an index construction can be a decisive error in a single credit.

The banking-specific evidence also differs in emphasis from the corporate-finance mainstream. Studies of listed firms typically ask whether ESG performance improves valuation or lowers the cost of capital; studies of banks are more concerned with whether ESG improves the identification and management of risk within an intermediary that itself faces prudential constraints (Weber, 2017; Habib, 2023). This shift of emphasis—from value creation to risk control—aligns the banking literature with the supervisory view but leaves open the operational question at the centre of this paper: through what mechanism a risk that is recognised in principle becomes a factor that is priced, structured and monitored in practice. Evidence from emerging markets is thinner and more uneven. Reviews of banking in developing economies suggest that ESG adoption is shaped as much by regulatory pressure, market access and institutional capacity as by any straightforward risk calculus (Weber, 2017; Habib, 2023; Azmi et al., 2021). Recent bank-level evidence from emerging and Islamic-finance-oriented markets reinforces the point, showing that environmental, social and governance factors, together with social and governmental responsibility, bear measurably on profitability, non-performing loans and financial stability (Kanapiyanova et al., 2023; Faizulayev, 2026). Cross-country evidence indicates that emerging-market banks often adopt the visible architecture of sustainable finance—policies, disclosures, governance committees—more readily than the harder analytical work of pricing sustainability risk into individual credits, a sequencing that produces the appearance of integration ahead of its substance (Azmi et al., 2021). For Kazakhstan, the available material is largely descriptive—regulatory taxonomies, supervisory guidance and bank sustainability reports—documenting the construction of a sustainable-finance architecture (ARDFM, 2024; AIFC Green Finance Centre, 2024). What empirical work exists for the region has largely examined how ESG factors affect the financial sustainability of transition-exposed sectors such as oil and gas rather than the mechanics of bank lending (Zhakupova et al., 2023; Dosmanbetova et al., 2025). Almost none of it examines how that architecture translates into lending decisions on the ground.

Underlying these strands is an implicit process assumption that the literature rarely tests. Studies treat the bank as a unit that converts an ESG input into a credit output, yet the conversion runs through a series of hand-offs—between relationship managers, analysts, risk officers and credit committees—each of which can preserve or discard sustainability information. Business-process research has long shown that where a workflow spans multiple actors and documents, signal loss occurs at the seams rather than at the endpoints (Dumas et al., 2018). Applying that lens to lending suggests that the decisive question is not whether ESG is material, but whether the process is designed to carry a material finding intact from the point of discovery to the point of decision.

Two omissions therefore define the gap this study addresses. The first is analytical level: prior work treats ESG and credit as an input–output relationship estimated at the firm or portfolio level, leaving the internal lending process—the sequence of decisions through which a loan is actually made—largely unopened. The second is context: the operational, data and capacity conditions of emerging-market banks are absent from a literature built on advanced-economy institutions. Bringing the process inside the frame, and doing so for a market where ESG infrastructure is still forming, is where this paper positions its contribution.

3. Methodology

The study adopts a qualitative, practice-oriented design suited to a research question about mechanism rather than magnitude. Because the aim is to explain how ESG is incorporated into lending and where integration breaks down, the appropriate object of analysis is the lending process itself, not a statistical association between ESG scores and credit outcomes. This orientation also reflects the data environment: sustainability information in Kazakhstan's banking sector is neither standardised nor complete enough to support credible econometric estimation of parameters such as probability of default (PD) or loss given default (LGD).

Four methods operate in sequence. Process mapping reconstructs corporate lending as a chain of connected activities—origination, financial analysis, credit assessment, transaction structuring, approval and post-disbursement monitoring—so that each stage can be interrogated for whether, and how, ESG enters. Mapping of this kind is a standard device in business process management for exposing where value and information are gained or lost across a workflow (Dumas et al., 2018). Against this map, gap analysis compares observed domestic practice with supervisory expectations and recognised market approaches (BCBS, 2022; EBA, 2021; IFC, 2023); the object is not compliance scoring but the identification of stages where integration is weakest.

Benchmarking then supplies an external reference. Six international banks—referred to here as Bank A, Bank B, Bank C, Bank D, Bank E and Bank F, with their identities withheld to avoid any appearance of endorsement—were selected because their disclosures describe, in usable detail, how ESG is built into governance, portfolio management, borrower assessment and lending decisions. The selection favours institutions that publish enough procedural detail to permit process-level comparison rather than the highest-ranked banks on any ESG index, since the object of interest is method, not score. The purpose of the comparison is diagnostic and adaptive: to establish the direction of leading practice and to test which elements are transferable to a market with different data and capacity, not to hold Kazakhstan's banks to a global benchmark. Where a practice depends on infrastructure that the local market lacks, the benchmark is read for its underlying logic rather than its specific implementation.

Evidence comes from document analysis of publicly available sources: supervisory and regulatory publications, sustainability and annual reports, and institutional lending and financing policies. This choice fits the phenomenon, since much of the current development of ESG in banking is

expressed through guidance and disclosure rather than in structured datasets. The domestic evidence base draws principally on the disclosures of two leading Kazakhstani banks, referred to here as Bank 1 and Bank 2, read against the national regulatory framework and taxonomy (ARDFM, 2024; AIFC Green Finance Centre, 2024). The design carries clear boundaries. Reliance on public disclosure means the analysis observes stated policy and reported practice rather than confidential internal methodologies, transaction files or rating models; the gap between what banks disclose and what they do internally cannot be measured here. The findings are analytical and contextual rather than statistical, and are specific to Kazakhstan's institutional setting. These limits are revisited in the conclusion, where they define an agenda for data-based research.

4. Results

Read across the lending cycle, ESG integration in Kazakhstan follows a consistent shape: it is strongest at the front of the process and weakens with each subsequent stage. Sustainability considerations are visible and reasonably systematic in screening and due diligence; they become progressively fainter through credit assessment, structuring and monitoring. The pattern is not one of absence but of attenuation, and its shape locates the practical problem with some precision. At origination, ESG functions as a filter. Relationship managers apply environmental and social screening to flag borrowers or projects whose sector or exposure warrants closer examination before financial analysis begins. The responsible-financing approach of Bank 1 illustrates the mechanism through exclusion criteria applied ahead of detailed environmental and social risk assessment, with comparable principles disclosed by Bank 2, albeit with variation in execution (Bank 1, 2025; Bank 2, 2025). Screening of this kind improves the efficiency of the process by directing analytical effort toward the transactions most likely to carry material risk.

Due diligence is where integration is most substantive. Here environmental compliance, governance quality, labour and stakeholder relations and exposure to climate-related regulation are assessed as complements to conventional financial analysis, on the reasoning that these factors may impair future operating performance before they appear in financial statements. Leading domestic practice applies a risk-based environmental and social risk assessment in which the depth of review scales with the borrower and the transaction—an approach consistent with international good practice that concentrates scrutiny where it is most likely to affect long-term credit quality (IFC, 2023). At this stage ESG genuinely widens the aperture of borrower evaluation. The turning point is credit risk assessment. Once analysis moves into internal rating and quantitative evaluation, ESG loses definition. Lending decisions continue to rest on financial indicators and internal rating methodologies, and there is little evidence that environmental or social factors are systematically embedded in rating models, PD, LGD or expected-loss estimates. ESG informs expert judgement about borrower resilience, but it does not operate as an independent, quantified input. This is the fulcrum on which the whole pattern turns: a signal collected upstream is not carried into the calculation that determines the credit decision.

The mechanics of this handoff repay closer attention, because it is where the process design fails rather than the analysis. Environmental and social findings generated during due diligence are typically recorded in narrative form and attached to the qualitative sections of the credit assessment. Internal rating models, by contrast, ingest structured, quantified inputs. In the absence of a defined route by which a material ESG finding is converted into a rating adjustment, a pricing input or a monitoring trigger, the finding remains descriptive: visible to the credit committee as context, but not operative in the calculation that sets the terms of the loan. What looks like under-integration is therefore, more precisely, a missing translation step between a qualitative observation and a quantitative decision variable.

Structuring and approval show the same selectivity. International practice reflects material ESG risk in financing terms—through sustainability-linked features, additional reporting or targeted covenants—and leading Kazakhstani banks increasingly apply responsible-financing frameworks and sustainable-finance products, particularly for transactions with elevated environmental exposure. Yet across conventional corporate portfolios there is limited evidence that ESG shapes pricing, covenant design or repayment structure in any standard way. ESG supports selected deals; it is not yet a routine determinant of how transactions are built. The selectivity is itself informative: where ESG does influence structure, it tends to do so on transactions already flagged as high-exposure, which suggests the capability exists but is deployed exceptionally rather than as a standing feature of underwriting.

Monitoring is the weakest link. Supervisory guidance treats post-disbursement surveillance as essential, since climate events, regulatory shifts and governance failures can alter borrower risk after money is advanced (BCBS, 2022; IFC, 2023). Domestic disclosures, however, say far more about governance arrangements and financing policies than about ongoing ESG monitoring over the life of conventional loans. Integration is concentrated at the point of decision and thins out afterwards, leaving the surveillance stage as the clearest candidate for development. The asymmetry is telling: banks invest most where a decision is imminent and least where risk accrues silently over a multi-year exposure—the very horizon over which transition risk is expected to bite. The stage profile also interacts with the structure of the loan book. Corporate lending in Kazakhstan is concentrated in energy, mining, manufacturing, transport and infrastructure—sectors both central to the economy and disproportionately exposed to transition and regulatory pressure. This concentration raises the stakes of the monitoring and portfolio gaps in particular, because a shock to one exposed sector can move several borrowers at once. Conventional portfolio management here still turns on borrower quality, collateral coverage and sector concentration; transition risk is not yet a routine axis of portfolio steering. The consequence is that the weakest stages of integration coincide with the exposures where forward-looking analysis would add the most value—a misalignment that sharpens the case for development rather than diminishing it.



Beneath the stage-by-stage pattern sit two interlocking constraints that account for much of the attenuation. The first is methodological inconsistency: absent common assessment standards, comparable borrowers can receive different ESG evaluations depending on the procedures of the individual bank, which undermines comparability across sectors and portfolios and confines ESG to case-by-case judgement. Because credit decisions are made one exposure at a time, an inconsistent signal is not diluted by aggregation—as it might be for a diversified investor—but is transmitted directly into an individual underwriting outcome, so inconsistency at the assessment stage propagates rather than cancels. The second constraint is data quality: unlike financial reporting, which rests on established accounting standards, ESG disclosure is uneven, with large listed and internationally financed firms reporting extensively while many privately held and mid-sized borrowers disclose little (OECD, 2023; SBFN, 2025). Where disclosure is thin, analysts compensate with sector research, management interviews and site visits; these efforts improve the analysis but also inject subjectivity, because the resulting ESG view reflects the information available to a particular team as much as the borrower's actual profile.

The two constraints are not additive but mutually dependent. Standardised methodologies cannot function without reliable inputs, and better disclosure yields little unless applied through consistent procedures; improving either alone leaves the other binding. This interdependence is the study's central diagnostic result. It explains why integration stalls precisely at the transition from qualitative assessment to quantitative decision: the qualitative stages tolerate variable information and bespoke judgement, whereas the quantitative stages—internal rating, pricing, portfolio limits—require inputs that are both consistent and comparable, which the current environment does not supply. The implication is directional as well as diagnostic: data and methodology must advance together, and remedial effort is most effective when aimed at the point where the process shifts from judgement to calculation.

A third, enabling constraint concerns institutional capacity. Carrying ESG into credit decisions requires relationship managers, analysts, risk officers and credit committees to weigh environmental and social factors alongside financial ones—work that demands sector-specific expertise and internal guidance capable of translating sustainability information into financial terms. Disclosures indicate that leading domestic banks have strengthened ESG governance, introduced responsible-financing policies and expanded internal training, but the depth of expertise plausibly varies across institutions and business units with organisational maturity and resources. Capacity does not by itself close the transmission gap, yet without it the methodological and data improvements described above cannot be applied consistently, which is why the framework proposed below treats guidance and skills as part of the foundation rather than an afterthought.

Table 1. ESG integration across the corporate lending cycle: current practice in Kazakhstan versus leading international practice

Lending stage	Leading international practice	Current practice in Kazakhstan	Integration level
Origination / screening	Systematic exclusion and sector screening	Applied via responsible-financing exclusion criteria	Established
Borrower due diligence	Risk-based E&S assessment feeding the credit view	Proportionate E&S risk assessment; scope varies by bank	Substantive
Credit risk assessment	Material ESG reflected in internal ratings / PD-LGD	Informs expert judgement; not embedded in rating models	Weak
Transaction structuring	ESG in pricing, covenants, sustainability-linked terms	Selective; limited effect on conventional portfolios	Selective
Portfolio management	Portfolio-level, sector-transition alignment	Conventional measures; transition risk not yet integrated	Emerging
Post-disbursement monitoring	Ongoing ESG surveillance over loan life	Least developed; limited disclosure of ongoing monitoring	Nascent

Source: Author's analysis of institutional disclosures and international supervisory guidance.

5. Discussion

The results reframe a familiar problem. Where much of the ESG-and-credit literature asks whether sustainability factors predict credit outcomes, the evidence here concerns transmission—whether a recognised signal survives the journey from due diligence to decision. In Kazakhstan it largely does not. The gap is therefore operational rather than strategic: the constraint is not a failure to accept ESG as material, but a breakdown in the machinery that would carry material findings into rating, pricing, structuring and surveillance. That distinction matters, because it points remedial effort at process design rather than at further policy commitments. This reading is consistent with, and helps explain, two established findings. The measurement problem documented for ESG ratings—their divergence across providers—manifests at the level of the individual bank as methodological inconsistency (Berg et al., 2022); when no shared standard governs assessment, evaluations of comparable borrowers diverge and cannot support portfolio-level comparison. Likewise, the emerging-market observation that ESG adoption tracks regulatory pressure, market access and capacity (Weber, 2017; Habib, 2023) appears here as a within-sector unevenness: integration is deepest where borrowers face external ESG expectations and disclose accordingly, and shallowest where they do not. Read together, the two findings imply that the domestic pattern

is not idiosyncratic but a local expression of structural features documented elsewhere—which is what gives the diagnosis its generality.

The transmission framing also reconciles an apparent paradox in the evidence: banks that have invested visibly in ESG governance can still exhibit shallow integration in lending. If integration were primarily a matter of commitment, the two would move together. That they do not is consistent with a process account, in which governance sits upstream of the operational stages where signal is lost, and where visible investment in policy does not automatically fund the unglamorous translation and monitoring work that actually carries ESG into decisions. The paradox dissolves once the bank is treated as a process rather than a preference. Benchmarking against international banks clarifies the direction of travel and, importantly, what does not travel. The comparators did not achieve integration by erecting parallel ESG functions or separate approval tracks; they reinforced the credit process itself—refining borrower assessment, extending sector guidance, and moving from transaction-level review toward portfolio-level steering. The portfolio-alignment approach of Bank A and the sector financing policies of Bank B exemplify a shift from asking whether a single loan is sustainable to asking whether a portfolio is aligned with sectoral transition, on the recognition that environmental and regulatory change acts on industries rather than isolated borrowers (Bank A, 2024; Bank B, 2024). This is a philosophy rather than a toolkit, and it is the philosophy—not the sophisticated apparatus that supports it in advanced markets—that is transferable to Kazakhstan.

The transferability point cuts against a natural but mistaken inference. The lesson from leading practice is not that second-tier banks should replicate portfolio-alignment models built on data infrastructures they do not possess. It is that the same forward-looking logic can be applied through existing instruments: incorporating transition risk into current portfolio analysis, extending established monitoring to cover material ESG indicators, and treating sustainability information as an input to the credit file rather than a separate report. Framed this way, integration becomes an enhancement of prudent lending rather than a departure from it—an interpretation that aligns domestic development with supervisory intent without importing unfeasible complexity (BCBS, 2022; EBA, 2021).

There is also a supervisory reading. A principles-based regime of the kind Kazakhstan has adopted rightly grants banks flexibility to adapt implementation to their business models, but flexibility without common methodological reference points allows integration to develop unevenly and to concentrate where it is least demanding. The finding that methodology and data are jointly binding suggests that supervisory attention is most productive when directed at the connective elements of the credit process—standardised borrower-information expectations and guidance on carrying ESG into internal rating and monitoring—rather than at the volume of disclosure. Uneven maturity across the sector, visible in the differing depth of institutional disclosure, is a predictable outcome of a regime that has, understandably, prioritised building the architecture over specifying how it

should feed decisions. The analytical value of these results lies in relocating the problem. By opening the lending process and following ESG through it, the study shows that the binding constraint in an emerging market is transmission and comparability, not recognition—and that the two constraints holding transmission back, methodology and data, are entangled. That is a different diagnosis from the advanced-market literature, and it carries a different prescription: strengthen the connective tissue of the existing credit process, and strengthen data and method jointly, rather than layering new sustainability structures on top of it. For a bank, the practical corollary is that the highest-return interventions are unglamorous—templates, information standards, internal guidance and the extension of existing reviews—precisely because they repair the seams where sustainability signal is currently lost.

6. Conclusion

For Kazakhstan's second-tier banks, the ESG challenge in corporate lending is no longer one of recognition. Regulation, governance and responsible-financing policies have built the institutional foundation; what remains is to assess material sustainability risks with the same consistency already applied to the financial drivers of every credit decision. The study's stage-by-stage analysis shows why this has proved difficult—ESG shapes screening and due diligence but fades before it reaches rating, pricing, structuring and monitoring—and traces the attenuation to two interdependent constraints, inconsistent methodology and uneven borrower disclosure.

The theoretical contribution is to shift the unit of analysis from the ESG–credit relationship to the ESG–credit process. Treating lending as a sequence of decisions reveals an operational transmission gap that firm- or portfolio-level studies cannot see, and identifies its precise location at the boundary between qualitative assessment and quantitative decision. The contribution is sharpened by context: it describes how integration behaves in an emerging market where ESG infrastructure is still forming, extending a literature otherwise anchored in advanced economies. The practical implications follow directly from the diagnosis and, in every case, favour reinforcing existing credit machinery rather than building a parallel ESG apparatus. Five recommendations address the specific stages at which the analysis found sustainability signal to weaken. First, banks should close the translation gap between assessment and decision by requiring that every material ESG finding identified during due diligence be recorded in the credit memorandum in decision-useful form and linked explicitly to its expected effect on cash flow, debt service, collateral value and repayment capacity; a finding that cannot be expressed in these terms should be justified or set aside, so that qualitative review no longer dissolves before it reaches the rating. Second, they should embed material ESG factors within the internal rating process itself—initially as a structured, documented rating adjustment or override with a clear audit trail, and progressively, as data accumulate, as explicit inputs to probability-of-default and loss-given-default estimates for the most exposed sectors. Third, they should raise data quality proportionately, replacing open-ended requests for sustainability reports with a short, standardised set of sector-calibrated ESG

indicators collected through existing borrower-information channels and stored in the standard credit file, so that comparability improves without adding disclosure burden. Fourth, they should make ESG a routine rather than exceptional feature of transaction structuring, using covenants, reporting conditions and, where warranted, pricing to reflect material risks on conventional facilities and not only on sustainability-linked or project finance. Fifth, and most urgently, they should extend post-disbursement monitoring—the weakest stage identified—by adding a small number of material ESG indicators to existing portfolio reviews and early-warning systems, so that surveillance over the life of a loan begins to match the rigour already applied at origination. These measures are best sequenced in three phases: a foundation phase that aligns credit policies, memoranda and borrower-information standards and equips lending teams with practical guidance; an integration phase that feeds ESG information into rating and portfolio analytics and applies revised methods to selected higher-risk sectors; and an optimisation phase that deepens forward-looking and scenario-based analysis as data and institutional experience mature. The pace will vary with portfolio mix, sector exposure and institutional capacity, but the direction is common, and each step strengthens processes the bank already operates rather than displacing them.

The study's limits define its evidentiary reach. Because it rests on public disclosure, it observes stated policy and reported practice rather than confidential rating models, transaction files or internal methodologies, and it cannot measure empirically how ESG relates to PD, LGD or realised losses. Its conclusions are analytical and specific to Kazakhstan's setting. These boundaries mark the most productive next steps: research using internal bank data to identify which sustainability indicators carry genuine predictive value for borrower performance and portfolio quality, and comparative work across emerging markets to show how institutional and regulatory differences shape the same operational transmission gap. Corporate lending has always turned on the ability to see risk before it reaches the financial statements; integrating material sustainability risk into existing underwriting is best understood not as a separate objective but as the next stage in that long-standing discipline.

Table 2. Phased framework for strengthening ESG integration in corporate lending

Stage	Core actions	Expected outcome
Stage 1 — Foundation	Align credit policies, lending manuals and borrower-assessment methods; standardise ESG information requirements; issue practical guidance to lending teams.	Material ESG risks recorded consistently within borrower assessment and underwriting.

Stage	Core actions	Expected outcome
Stage 2 — Integration	Feed ESG information into portfolio analytics and management reporting; apply revised methods to selected higher-risk sectors; refine practice from experience.	ESG considerations consistently reflected in lending decisions and portfolio oversight.
Stage 3 — Optimisation	Strengthen portfolio analytics and forward-looking assessment; add scenario analysis where feasible; review outcomes periodically.	Mature, continuously improving integration of ESG within credit and portfolio risk management.

Source: Developed by the author.

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