



POSITION PAPER

Biodiversity in Banking

Pathways for strategic and
operational integration

September 2025

Table of Contents

Executive Summary	1
Introduction	2
1. Biodiversity Roadmap	3
Context	3
How to get started: The case of DKB	4
How to get started: The case of KfW	5
Status Quo	6
Recommendations	8
2. Portfolio Analysis	9
Context	9
Status Quo	9
Nature-Related Portfolio Analysis: The case of DZ BANK	10
Recommendations	11
3. Target Setting	12
Context	12
Status Quo	12
Recommendations	14
4. Operational Integration	15
Context	15
Status Quo	15
Operational Integration & Client Engagement: The case of ING	16
Recommendations	17
5. Reporting	18
Context	18
TNFD Reporting Implementation: The case of Commerzbank	18
Status Quo	20
Recommendations	21
Messages for Policy Makers & Regulators	22
Reference List	23
Appendix: Impact Driver Metrics	25
Approach of the Sustainable Finance Cluster Initiative	27
Acknowledgements	28
Imprint	29

Executive Summary

Biodiversity and nature are the base of our economy and need to be accounted for. Delaying their incorporation into impact and risk management, as well as in the strategic development, poses a risk for financial institutions and actors in the real economy. The recommendations in this paper, based on research and experiences in the German banking sector, show that addressing the topic is possible, even at these early stages of data availability.

The key take-aways of this paper are:

1. ACT NOW – Time is Running Out

Natural capital and biological diversity underpin economic activities and require proper valuation in economic frameworks. Biodiversity is becoming increasingly material for banks while it remains challenging to operationalise due to its complexity. The longer banks and real economy players wait to incorporate these elements into their operations, the greater their exposure to risk.

2. BE BOLD – Raise your Ambition

So far only few banks have adopted dedicated strategies while most have recognised biodiversity as a relevant topic. If banks want to move forward on the topic, they must raise their ambition, mobilise resources, develop integrated biodiversity strategies, and work towards operational integration.

3. SOLUTIONS EXIST – No More Excuses

There is a wide range of guidelines, expertise, databases, and solution providers available to address the topic. Therefore, getting started with tackling the complexity of nature and biodiversity has become possible and is a matter of ambition and commitment.

4. START SMART – Don't Wait for Perfect Data

Banks must move beyond basic portfolio screenings to systematic risk assessments. In order to properly understand the risks and opportunities within their own portfolios, they depend on data and information from their clients. However, this should not be an excuse not to get started with the topic. Beginning with available data allows banks to develop internal capabilities while working with clients to improve data quality over time.

5. STANDARDIZATION IS KEY – One Standard to Rule Them All

Ideally, there should be one coherent biodiversity reporting standard with recommended sectoral metrics that is simple, yet relevant for banks. This would allow to properly assess biodiversity related impacts, risks, and opportunities, and to ensure a comparability among the actors in the sector.



IMAGE SOURCE: Francesco_277159209 - stock.adobe.com

Introduction

Three-quarters of corporate loans from Euro area banks go to ecosystem-dependent companies, and their financed activities impact an area equivalent to 60% of Europe (ECB 2023a, 2023b). The systemic and financial risk posed by the ongoing loss of biodiversity has triggered regulatory pressure, investor demand, and further reporting requirements. Consequently, banks are increasingly required to integrate nature and biodiversity into their ESG frameworks and strategies.¹ Simultaneously, regulators must establish clear, consistent frameworks that enable effective implementation.

This position paper explores **five critical challenges of biodiversity integration in the German banking sector**, that require coordinated efforts between financial institutions and regulators:

1. Developing robust **biodiversity roadmaps**,
2. implementing effective **portfolio analysis** methodologies,
3. setting meaningful **targets**,
4. **operational integration**, and
5. navigating complex **reporting** requirements.

The central question is:
How can banks effectively integrate biodiversity into their strategy and operations?

This paper examines current practices, challenges, regulatory frameworks, reporting standards, and emerging tools in biodiversity integration in Germany. It offers banks a roadmap to incorporate biodiversity into core operations, while contributing to global conservation efforts and maintaining financial stability. A description of our approach and methods can be found at the end of the paper.

Therefore, this position paper serves as a comprehensive guide for C-level executives, Chief Sustainability Officers, and sustainable finance professionals. However, we also derive key insights and evidence-based recommendations for regulators and policy makers.² Beyond the financial sector, this analysis is relevant for companies across the real economy, their industry associations, as well as civil society organisations working to advance environmental protection.

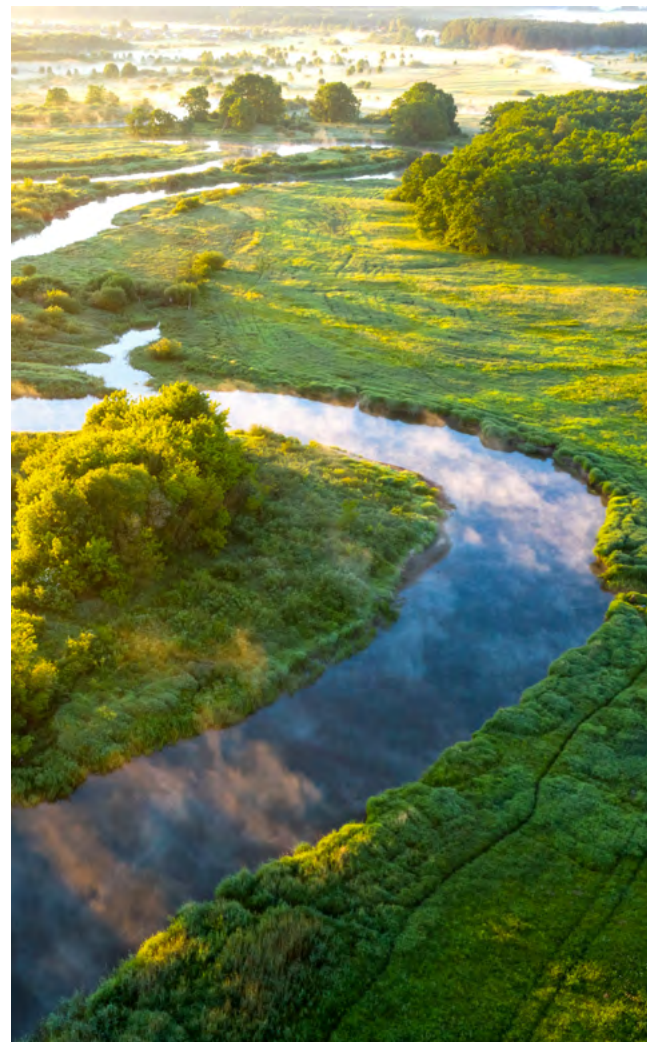


IMAGE SOURCE: dzmilrock87_316679226 - stock.adobe.com

¹ We acknowledge that “biodiversity” and „nature“ are technically distinct but closely related concepts. For readability, this paper uses „biodiversity“ as an umbrella term that includes both biodiversity in its technical sense and the broader concept of nature and natural systems.

² For additional relevant recommendations for policy makers in Germany see also the position paper from the Sustainable Finance-Beirat (2025). See also the publications from the Green Finance Alliance (2025) and Orbiture (2025) for more background information on biodiversity in the context of the financial sector.

Biodiversity Roadmap

Context

As biodiversity gains relevance across regulatory, investor, and civil society agendas, banks are expected to formulate dedicated roadmaps. A biodiversity roadmap lays out an organisation's journey towards full institutionalisation of biodiversity. It provides direction for internal efforts, demonstrates commitment to stakeholders and helps banks to align with emerging global frameworks such as the Global Biodiversity Framework (GBF) (Convention on Biological Diversity 2022).³ However, many banks still face uncertainty around what a comprehensive biodiversity roadmap should entail and how to develop one that is actionable and tailored to their operations.

Based on the discussions and presentations in the cluster initiative, we propose a roadmap for biodiversity integration which defines four domains and

twelve steps (See **Figure 1**).⁴ Subsequent chapters and sections explore selected roadmap elements in more detail, though not all steps are addressed with equal depth.

While sharing structural similarities with climate change, biodiversity loss presents unique challenges requiring specialised approaches. Climate represents one issue with standardised GHG metrics, while nature encompasses many interconnected issues that cannot be summed into a single impact metric. Unlike climate's global effects, biodiversity impacts are local and non-fungible and local restoration cannot offset destruction elsewhere (Dunya Analytics 2025). Therefore, this roadmap emphasises location-specific assessments and diverse nature-based metrics.

Figure 1: Biodiversity Roadmap

Domains	A. Setting the Foundation	B. Portfolio Analysis	C. Strategy	D. Implementation
Steps	<ol style="list-style-type: none"> 1. Identify Biodiversity as a relevant topic 2. Set up the internal team and equip with necessary resources, expertise and mandate 3. Assess the status quo (organisational, regulatory and market context) and identify gaps 	<ol style="list-style-type: none"> 4. Conduct a portfolio screening to identify material impacts, significant dependencies and critical sectors 5. Conduct an in-depth assessment of the portfolio and business model to identify risks and opportunities 6. Identify relevant metrics and KPIs 	<ol style="list-style-type: none"> 7. Define your ambition and set targets aligned with the GBF and national strategies 8. Develop a transition plan, incl. measures, a client engagement approach and sectoral transition pathways 9. Determine the organisational anchoring and governance model 	<ol style="list-style-type: none"> 10. Report on your biodiversity approach with relevant reporting standards (e.g. ESRS, TNFD). 11. Develop new products and scale investments 12. Monitor the progress and adjust as needed
Content	<ul style="list-style-type: none"> • Case studies in Chapter 1 on "how to get started" from KfW and DKB 	<ul style="list-style-type: none"> • Chapter 2 on portfolio analysis with case study from DZ BANK • Metrics addressed in chapter 3 on target setting 	<ul style="list-style-type: none"> • Chapter 3 on target setting • Chapter 4 on operational integration with case study from ING 	<ul style="list-style-type: none"> • Chapter 4 on operational integration with case study from ING • Chapter 5 on reporting with case study from Commerzbank

³ See also the report by UNEP FI (2023) discussing the implications of the GBF for banks. Also relevant in this context are the EU Biodiversity strategy for 2030 (European Commission 2020) and national biodiversity strategies such as the German national strategy for biodiversity (BMUV 2024).

⁴ See also the Green Finance Alliance's approach for gradually integrating biodiversity (2025, p. 25), the guide on biodiversity integration from the Finance for Biodiversity Foundation (2022), and IUCN's Guidelines for planning and monitoring corporate biodiversity performance (2021).



CASE STUDY



How to get started

A major challenge, that is almost never mentioned in any of the roadmaps or public reports, is the much-needed ability to empathically and convincingly communicate. Change agents, that want to establish biodiversity as a relevant topic within a bank need to put considerable effort and skill into convincing internal stakeholders, as well as explaining the implications to colleagues working in risk, sales, customer service, and the C-level. If this is done effectively, the banks ambition to act on biodiversity can be raised step by step which creates the possibility to positively impact nature as well as starting to see opportunities.

Biodiversity was raised as a relevant topic at DKB by a trainee in 2021. Insa Schüßler, who has a background in Environmental Management and Geography, was very passionate about the topic and instantly had the CSO, Andreas Gruber, as well as the sustainability team on her side to get started on the topic. Neither was ready for what was to come, but they got going anyways.

Insa quickly realised that, at the time, the (scientific) understanding of the topic within the banking sector was – and this is not an attribution of blame – small to non-existent. Therefore, she spent the first year working on education for sustainable development to spread awareness throughout the group. As a consequence, in 2023, a dedicated Biodiversity Manager had been appointed – long before conducting the double materiality assessment for the CSRD.

To better grasp the topic, a first ENCORE-based analysis had been conducted in 2022, followed by a sector-specific footprinting assessment in 2024. To deepen the insights, DKB is currently in the process of conducting a location-specific analysis. Apart from that, DKB included Biodiversity and Ecosystems in its strategy development, Sustainable Lending Framework, CSRD report, and – in 2025/2026 – in the strategic transition plan. Furthermore, pilot projects have been implemented for measuring positive impacts on biodiversity; for example, in cooperation with KLIM and two agricultural clients of DKB. Implementing biodiversity- and nature-related issues into the business strategy at DKB has been an adaptive process characterised by many iterative interventions: in particular explaining the impacts and dependencies again and again, while trying to quantify those by mastering the “data black box”.

Roadmaps play an important and valid basis for the assessment and management of biodiversity risks and opportunities at DKB. In particular, they serve well to set milestones and monitor progress. At the same time, however, it has been essential, to approach the process with an agile mindset: efforts, strategy and roadmaps have to be adapted repeatedly on an ad-hoc basis, throughout the transition towards nature-neutral or even nature-positive economic activities. Hence, a roadmap must not become a static crutch or linear process; rather, it should be treated as a dynamic tool, responsive to evolving insights, responsibilities, power dynamics, and partnerships. The most important message is that you should get started before you (think you) are ready!



CASE STUDY



How to get started

As a digital transformation and promotional bank, KfW believes it has the responsibility to make an active contribution to the sustainable transition, also in the area of biodiversity. Due to the nature of its work as a development bank, KfW has a good starting position in terms of biodiversity and nature finance. Today, KfW is recognised as one of the most important bilateral donors in the field of biodiversity protection worldwide.

In order to enhance KfW's favourable starting position, a multidisciplinary taskforce was launched. Experts from the areas of strategy development, risk management, product development, and impact management were brought together. The objective of this taskforce was to assess the status quo regarding positive and negative impacts, risks and dependencies, as well as strategic development and to define the most significant fields of action with the goal of outlining the level of ambition for further measures.

During this process, among other things, the taskforce developed core definitions and conducted the first portfolio analyses, while testing tools such as ENCORE, Exiobase, IBAT, and WWF's biodiversity filter. Additionally, a market analysis was conducted, and the national and international regulatory frameworks were outlined. The challenges faced included an overload of nature parameters and approaches to measure biodiversity-related impacts and risks, the continuously evolving regulation and the lack of a standardised approach for addressing the topic in the financial sector.

These first analyses from the so-called "Biodiversity Roadmap" allowed KfW a better understanding of the priorities within the identified fields of action and paved the road for the new project "bioSFer". This specialised project started in 2025 and has the aim to develop a comprehensive biodiversity strategy. This strategy will address the aspects of positive and negative impacts in the banking business, risks and dependencies, as well as further dimensions such as disclosure, data, tools, metrics, participation in initiatives, and the establishment of strategic partnerships. In addition, bioSFer will focus on finding and capitalising on market-, operation-, and scape-based opportunities. With this approach, bioSFer pursues a comprehensive concept that considers all subjects that are relevant for a bank in connection with the management of biodiversity and nature.

Status Quo

The results of the cluster survey⁵ show that all banks have recognised biodiversity as a relevant topic. **Figure 2**, however shows that only a quarter have adopted dedicated biodiversity strategies, revealing a gap between awareness and strategic anchoring. Organizationally, responsibility typi-

cally lies with sustainability and risk departments, though many institutions use cross-departmental approaches. Further, **Figure 3** gives an overview of the five strongest barriers and drivers. Most importantly, effort and cost are the strongest barrier, while compliance is the strongest driver.

Figure 2: Status of Biodiversity Integration across Banks

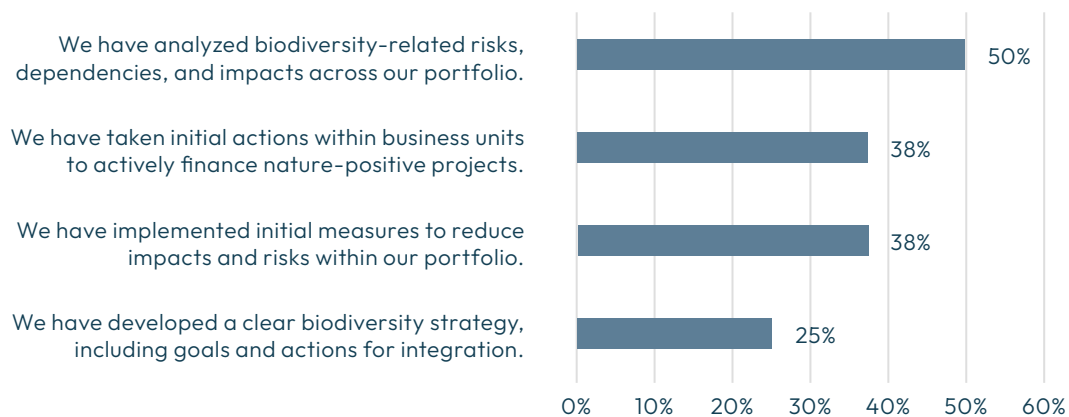
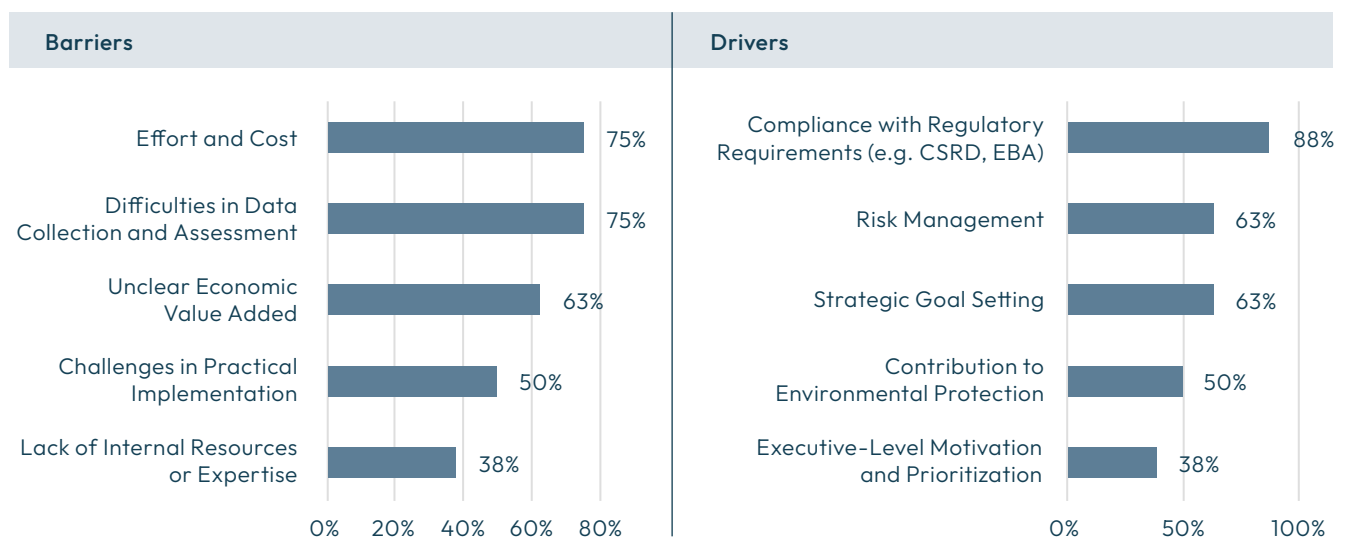


Figure 3: Top 5 Barriers and Drivers of Biodiversity Integration



⁵ See the description of the research methods at the end of the paper. The numbers in this position paper are slightly different from those presented in a press release in May 2025 on the „Results of the Pulse Check Biodiversity“. This is because we have received one additional survey response from one of the banks in the meantime.

Figure 4 provides further insights on the „Roadmap Maturity“ of six banks from the sample. They have indicated the status for each of the steps as „not started“ (light red, 0 points), „in progress“ (light green, 1 point), or completed (strong green, 2 points). Based on this we have also calculated the Maturity Score, which indicated how advanced the banks are with biodiversity integration. The data reveals significant variation in biodiver-

sity integration across banks, with maturity scores ranging from 5 to 18 (out of 24). While all banks have established the foundations, some institutions are advancing much more rapidly than others in the other domains. This diverging maturity pattern suggests that the industry appears to be splitting into leaders and followers rather than progressing uniformly.

Figure 4: Biodiversity Roadmap Maturity

Bank Maturity Score	# 1 5/24	# 2 13/24	# 3 14/24	# 4 17/24	# 5 17/24	# 6 18/24
1. Relevance	completed	completed	completed	completed	completed	completed
2. Team	completed	in progress	completed	completed	completed	completed
3. Status Quo	in progress	in progress	completed	completed	completed	completed
4. Screening	not started	completed	in progress	completed	completed	completed
5. Assessment	not started	in progress	in progress	in progress	in progress	completed
6. Metrics & KPIs	not started	in progress	in progress	in progress	in progress	in progress
7. Targets	not started	in progress	in progress	in progress	in progress	in progress
8. Transition Plan	not started	in progress	not started	in progress	in progress	in progress
9. Governance	not started	in progress	in progress	in progress	completed	completed
10. Reporting	not started	in progress	completed	completed	in progress	in progress
11. Scaling	not started	in progress	in progress	in progress	in progress	in progress
12. Monitoring	not started	not started	not started	in progress	in progress	in progress

Note: The table visually illustrates how mature a sample of six banks is with respect to biodiversity integration.

not started (0 points)
 in progress (1 point)
 completed (2 point)

Recommendations

Banks should begin by developing a dedicated biodiversity roadmap that aligns with regulatory requirements. Further, they should integrate biodiversity into the overall sustainability and business strategy. This includes setting clear objectives and assigning internal governance structures. Guidance can support target-setting in alignment with global frameworks and national biodiversity strategies⁶ (see chapter on target setting). In addition, biodiversity goals should be linked to concrete implementation measures. This includes among other things product innovation, client engagement, and internal capacity building (see chapter on operational integration).

A well-defined strategy supports accountability, enables better risk management, and positions banks to benefit from emerging opportunities in nature finance. For this, clear governance structures should be established. This includes board-level responsibility as well as cross-functional collaboration across sustainability, risk, strategy, and client-facing teams. Institutions should also conduct portfolio assessments (see next chapter) and align communication with investor expectations using frameworks like the European Sustainability Reporting Standards (ESRS) and International Sustainability Standards Board (ISSB) (see chapter on reporting).

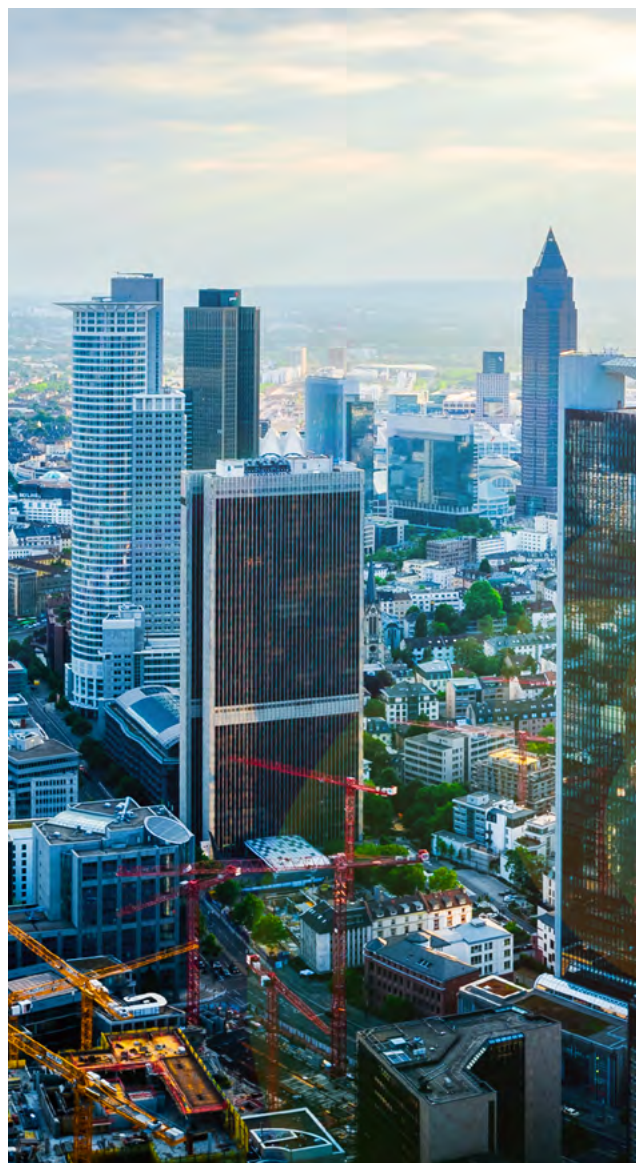


IMAGE SOURCE: cl_stock_84081206 - stock.adobe.com

⁶ In particular from the United Nations Environment Programme Finance Initiative (UNEP FI 2023), Science Based Targets Network (SBTN, 2024), and Taskforce on Nature-related Financial Disclosures (TNFD 2024a, 2024b, 2024c).

2. Portfolio Analysis

Context

Portfolio analysis involves systematically evaluating banks' lending and investment portfolios to identify nature-related impacts, risks and opportunities. This process examines how business activities across sectors impact natural ecosystems as well as potential financial risks arising from biodiversity loss. The aim is to reveal exposure to sectors with high biodiversity materiality and operations in sensitive ecosystems.

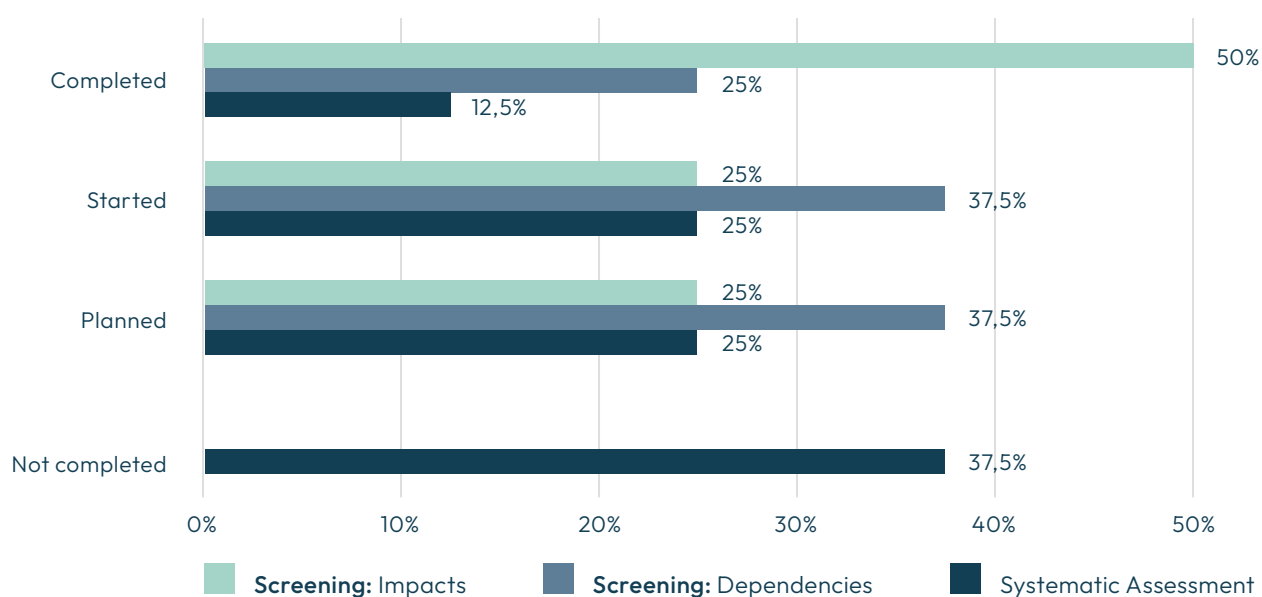
A distinction exists between portfolio screening and portfolio assessment. Screening serves as a high-level mapping exercise, using sector-level categorisations and indicator-based tools (e.g. ENCORE) to identify high-risk sectors in the portfolio. Assessment involves a more detailed analysis of physical and transition risks on a company level. It uses location-specific information and scenario modelling to integrate indicators such as deforestation risk, land-use change, and water stress into forward-looking risk models.

Status Quo

The findings from our survey offer a view of how banks use tools, assess biodiversity risks and dependencies, and identify critical sectors and nature-related pressures. **Figure 5** shows that biodiversity impact screening is becoming standard practice, with half of institutions having completed it and the other half having started or planning to do so. Dependency screening lags behind with less screenings completed and more in progress or planned. Systematic biodiversity assessment remain the least developed area⁷.

In terms of tools, ENCORE (2024) is used by all surveyed institutions and 50% also use the WWF Biodiversity Risk Filter (2022). Other tools mentioned include EXIOBASE, the Biodiversity Impact Analytics powered by the Global Biodiversity Score (BIA-GBS), and the Integrated Biodiversity Assessment Tool (IBAT). These instruments support both screening and more advanced assessments by mapping sectoral dependencies, identifying

Figure 5: Status of Screening and Assessment in Banks



⁷ For an illustration see the case studies by DKB and DZ BANK.

ecosystem risks, and evaluating location-specific exposure⁸.

Overall, the results indicate that most banks have already taken first steps. However, banks currently neither employ all the available tools, nor are they in a position to fully grasp their biodiversity-

related impacts, dependencies, and risks. The main barriers include the limited availability of location-specific data from clients, inconsistent use of impact and dependency metrics, and lack of familiarity with tools and scenario-based methodologies.



CASE STUDY



Nature-Related Portfolio Analysis

Process and Implementation

Over a period of four months in 2025, DZ BANK carried out a comprehensive project to assess and integrate nature-related impacts, risks, and opportunities into the bank's processes. A key element of this effort was a portfolio analysis of the bank's credit exposures using the standard tools ENCORE and EXIOBASE. ENCORE models globally observed environmental impacts and dependencies by sector, while EXIOBASE maps typical supply chains across industries. The analysis leveraged ENCORE's expert-based pressures (also referred to as "impact drivers") and dependencies. DZ BANK selected three broadly defined sectors, agriculture and food, power generation, and real estate and construction, for closer examination. For each, the bank identified relevant impact drivers and dependencies, enriched the assessment using location data for credit exposures, and incorporated additional maps.

The results were reviewed by a multidisciplinary team consisting of sustainability experts from the strategy and risk departments, as well as representatives from the sales and lending departments. This ensured both methodological robustness and business relevance.

Challenges & Successes

The selected tools, ENCORE and EXIOBASE, provided useful guidance for assessing nature-related pressures and dependencies. Cross-functional collaboration enabled a thorough interpretation of results and their limitations.

However, several challenges emerged. Global maps for some impact drivers were slightly outdated, requiring the use of more recent regional maps and expert-based qualitative assessments. In addition, gaps in borrower-specific location data made it necessary to use headquarter addresses as proxies.

⁸ See also the LEAP approach (TNFD 2024b) and the practitioner's guide of the Finance for Biodiversity Foundation (2025) for an in-depth discussion of measurement approaches and tools.



Outcomes & Benefits

The project delivered a clearer understanding of the environmental impacts and dependencies within DZ BANK's credit portfolio. It identified sectors with potentially higher exposure to nature-related risks, which have since been designated as focus sectors for future credit risk modelling related to nature.

The analysis also revealed data gaps and limitations in existing evaluation tools, providing a valuable foundation for deciding DZ BANK's broader strategy on nature-related impact and risk modelling. Importantly, the results serve as a basis for the bank's qualitative materiality assessment as required under the ESRS.

Next Steps

The results of the portfolio analysis will now be reviewed by the risk department to determine whether they can inform future risk driver assessments in line with regulatory requirements. Findings will also be used in upcoming ESRS-aligned sustainability reports. Looking ahead, DZ BANK plans to model nature-related credit risks in its existing ESG credit risk scorecard and gradually integrate them into the credit application process. In addition, these insights, together with the impact and dependency profiles, will support the definition of the bank's broader strategic ambition on nature.

Recommendations

Moving from indicator-based screening toward systematic, quantitative assessments of nature-related physical and transition risks is essential for banks aiming to fully operationalise biodiversity risk management. This requires collecting more granular and location-specific data from clients. Further, adopting sector-specific metrics in line with TNFD and SBTN guidance is necessary (see also next chapter).

Widely used tools such as ENCORE and the WWF Biodiversity Risk Filter should be complemented with more advanced databases and spatial modelling for geographic accuracy and forward-looking insights. A robust portfolio analysis should inform the prioritisation of sectors and impacts in line with regulatory expectations.

Investment in internal capacity and cross-functional collaboration is therefore critical. Banks should implement training programs to build technical expertise and integrate biodiversity analysis into risk management and ESG processes.

Finally, institutions should align their portfolio analysis with strategic and reporting processes. This means integrating biodiversity findings into strategic goals, KPIs and transition plans, and using results to guide client engagement and capital allocation. A robust biodiversity portfolio analysis is essential to identify nature-related impacts, risks and opportunities⁹ and to meet regulatory, investor, and societal expectations.

⁹ Identifying opportunities and establishing business cases remains a challenge for banks. The TNFD consultation group Germany on 'Business Cases for Nature' has made a first attempt to identify opportunities for real estate investments (PwC 2025a).

3. Target Setting

Context

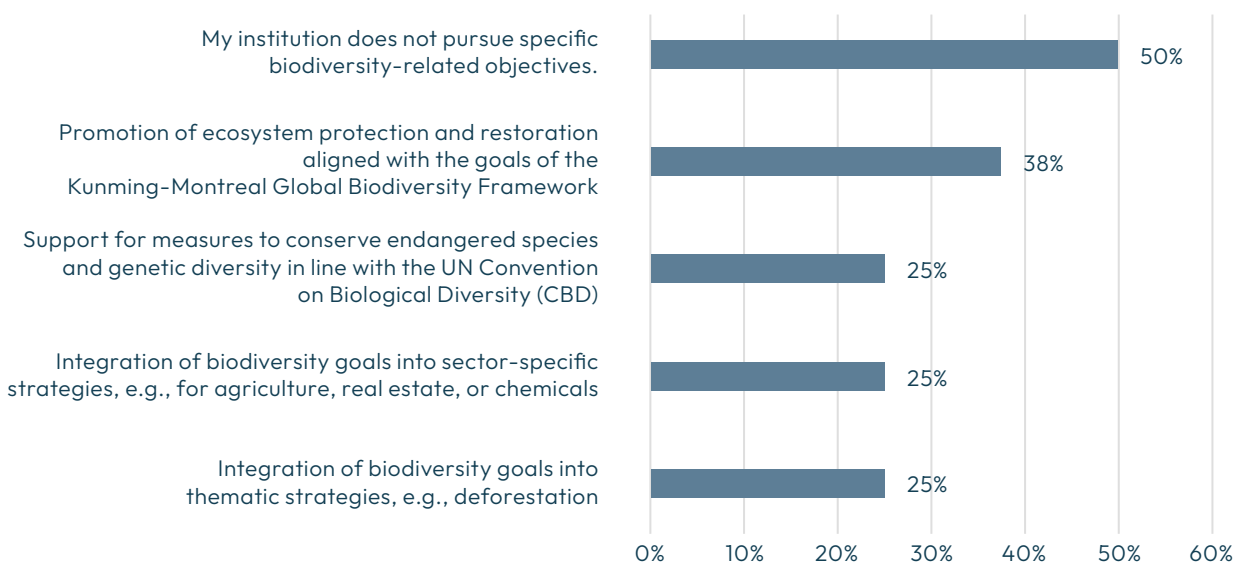
Setting biodiversity-related targets and KPIs is critical for banks aiming to align their portfolios with global nature goals and manage nature-related risks. These targets serve as essential strategic anchors that translate high-level biodiversity commitments into measurable outcomes and operational guidance. Metrics serve as the underlying data foundation that feeds into KPIs and targets. Biodiversity metrics are aggregated and processed to create meaningful KPIs that track progress toward specific biodiversity targets. Without concrete targets and metrics, institutions cannot effectively track progress, demonstrate accountability to stakeholders, or make informed decisions about portfolio allocation and risk management.

Status Quo

The survey reveals that a majority of 50% of institutions does not pursue any biodiversity-related objectives yet¹⁰, as shown in **Figure 6**. Further, a recent study by EFRAG (2025) concludes that the majority of reporting entities demonstrate insufficient alignment between metrics and targets, frequently characterized by inadequate detail and unclear methodologies that reduce decision-usefulness of disclosures.¹¹ This indicates that a deeper understanding about effective steering mechanisms is missing.

Guidance from UNEP FI (2023), TNFD (2023, 2024a, 2024b, 2024c), and SBTN (2024) is emerging. For instance, UNEP FI encourages financial institutions to set biodiversity impact targets using indicators such as deforestation and pollution to assess their portfolios' impact on nature. Institutions are urged to begin with practical, interim targets such as adjusting portfolio composition or engaging clients to reduce bio-

Figure 6: Status of Target Setting in Banks



¹⁰ These findings are similar to those of a study by PwC from 2024 (PwC 2024).

¹¹ This finding is from 50 companies from all sectors across Europe.

diversity impacts. These initial targets should be linked to prioritised impact areas like water, land use, or pollution. In addition, they must be aligned with international, regional, or national frameworks (UNEP FI 2023).

The document analysis of TNFD-aligned reports provides additional insights into initial steps toward biodiversity target setting. The analysis revealed a) four key strategic approaches, b) specific and measurable commitments, and c) sector-specific biodiversity metrics.¹² The results are presented in **Figure 7**.

As part of our cluster initiative, we have made an attempt to identify metrics that are based on the impact drivers, sector agnostic and potentially relevant across banks independent of particular portfolio composition. The results can be found in the **Appendix**.

While some institutions have begun to formulate goals, most still struggle with fragmented metrics, incomplete risk assessments, unclear best practices and the absence of standardised benchmarks. However, emerging practices, sector-level metrics, and evolving guidance provides a foundation for further progress. Practices and examples presented in this section provide a starting point for establishing effective biodiversity targets.

Figure 7: Status of Target Setting in Banks

Strategic Approaches	Commitments	Sector-specific Metrics
Integrating biodiversity KPIs into ESG frameworks, sustainability reports and corporate transition plans	Achieving regenerative practices on 30 percent of agricultural lands by 2030 with emphasis on soil health and biodiversity-friendly farming methods	Agriculture: Sustainable sourcing certifications and water use efficiency Forestry: Carbon stock tracking and deforestation metrics
Adopting science-based, SBTN-aligned targets based on ecosystem needs	Ensuring a minimum of 15 percent green cover in new urban developments using native species and pollinator corridors	Real estate and Infrastructure: Green certifications and biodiversity-sensitive design indicators
Focusing on impact-driver KPIs such as deforestation reduction, water conservation, and regenerative agriculture	Alignment with the „30x30“ conservation goal and committing to „no net loss“ policies by 2030 through comprehensive biodiversity impact assessments	Mining and Extractives: Land rehabilitation KPIs, biodiversity offset measures, and compliance in tailings management
Collaborating with local governments to promote urban biodiversity and reduce habitat fragmentation	Engaging with sectors to integrate national biodiversity strategies into investment decisions and urban planning processes	Energy: Renewable energy shares and habitat impact assessments

¹² The EFRAG study (2025) provides additional examples of entity-specific metrics used in the financial sector.

Recommendations

Institutions should begin by identifying relevant biodiversity KPIs that address material sectors within their portfolios, measure actual risk or impact, utilise available or obtainable data, and remain within the institution's sphere of influence and control. Throughout this process, institutions should leverage impact-driver and ecosystem-state metrics to create measurable baselines, set KPIs, and track progress toward nature-positive outcomes.

Once these foundational metrics are established, institutions can formulate practical interim targets that are grounded in and aligned with global frameworks such as the GBF and the SBTN initiative. This alignment enhances the comparability, credibility, and regulatory suitability of targets.

Biodiversity targets should then be embedded into business strategies and disclosure practices, ensuring they are linked with ESG frameworks, transition plans, and internal governance structures.

Collaboration across financial institutions, regulators, data providers, consultants, and scientific experts is also essential to harmonise biodiversity metrics and improve data quality. Regulators and standard setters will play a critical role by providing clarity on preferred metrics, thresholds, and reporting requirements. Embedding biodiversity targets into sustainability and transition planning processes will be essential for tracking impact. It is also important for meeting stakeholder expectations and supporting the shift toward nature-positive finance.

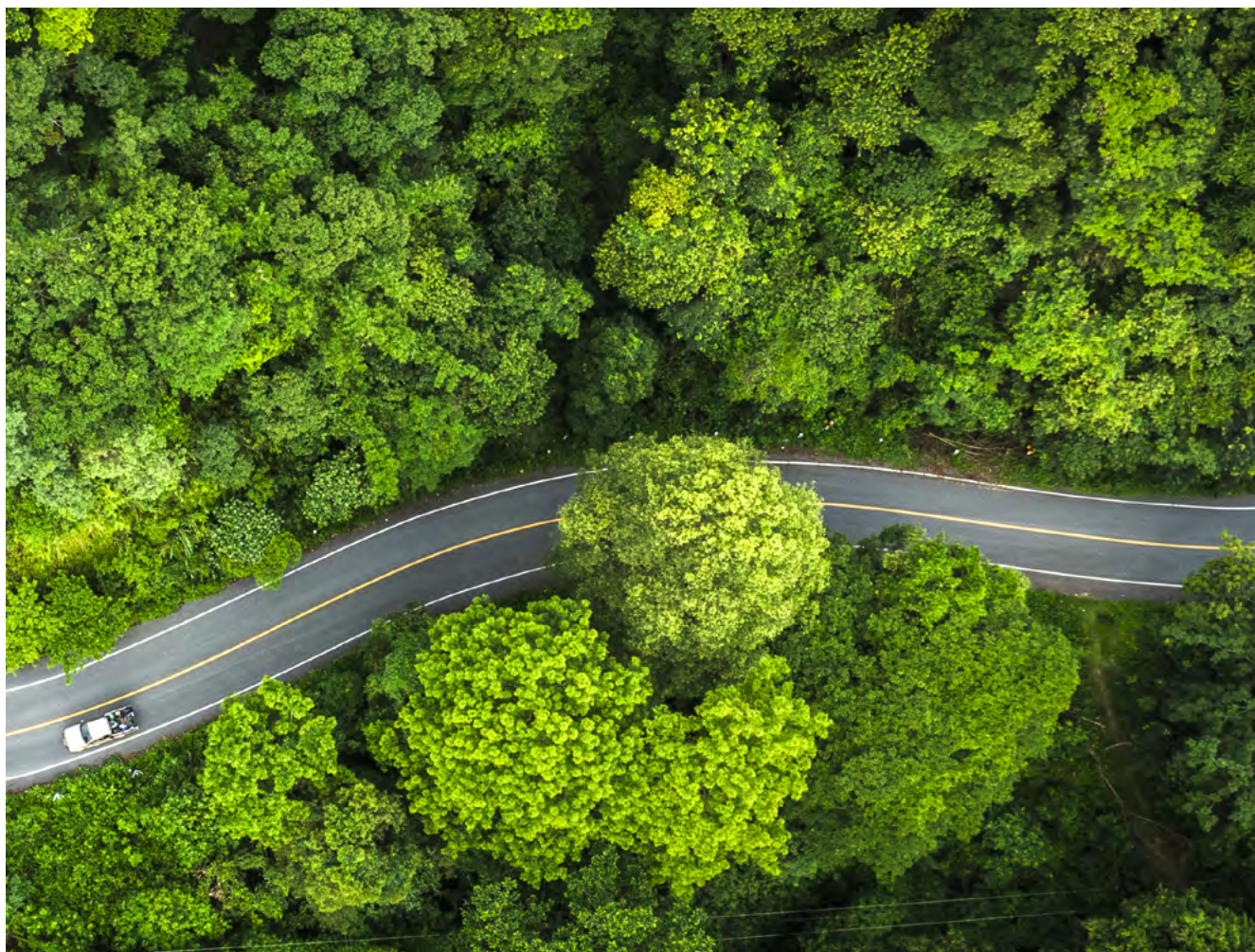


IMAGE SOURCE: Hand Robot_1333413900 - stock.adobe.com

4. Operational Integration

Context

Financial institutions increasingly recognize biodiversity as critical to their sustainability strategies, yet struggle to translate this awareness into operational practice. Recent industry research, including the VfU Themenradar 2025 study of German financial institutions, confirms that despite biodiversity's strategic importance, it consistently ranks low in operational implementation priorities (VfU 2025). This highlights the urgent need for practical approaches and examples that can bridge the gap between biodiversity strategy and day-to-day banking operations.



IMAGE SOURCE: Allen_123395206 - stock.adobe.com

Status Quo

The document analysis of TNFD-aligned reports identified a range of practical examples already in use by some financial institutions:

- Embedding biodiversity into environmental risk frameworks to ensure that lending and investment activities exclude projects associated with high biodiversity risks, such as deforestation or illegal land use.
- Revising loan policies to mandate biodiversity impact assessments for large-scale farming operations with the target to reduce habitat loss (in particular banks active in the agricultural sector).
- Adopting biodiversity-specific ESG metric with a focus on pollinator species and freshwater ecosystems, which are used to assess portfolio risks and guide investment decisions.
- Establishing sector-specific guidelines to evaluate biodiversity risks in industries such as mining oil and gas, often including land rehabilitation targets.
- Updating investment exclusion policies to filter out companies linked to significant tropical deforestation to reinforce commitment to nature-positive financing.

These developments illustrate the growing operational maturity of biodiversity strategies. Current efforts tend to focus on selected sectors or policies. However, the long-term challenge lies in mainstreaming these practices across the business model and integrating them into risk, credit, and product development processes¹³.

¹³ Relevant information on sustainable bonds for nature that is also relevant for sustainability-linked loans can be found in the practitioner's guide by ICMA (2025).



CASE STUDY



Operational Integration & Client Engagement

ING's biodiversity strategy is embedded in the broader sustainability agenda of the bank. This case study shows two examples of the operational integration into existing policies and engagement processes.

1. Managing risks, impacts, and dependencies:

ING's ESG Risk Policy entails the evaluation of direct drivers of biodiversity loss, containing several biodiversity and ecosystem-specific requirements for ING's financing activities with the aim of avoiding further habitat destruction and species loss.

These include, but are not limited to:

- ING will not finance any operations located in, or that significantly impact, based on experts' assessments, UNESCO World Heritage Sites, wetlands registered by the Ramsar Convention, or critical natural habitats registered by the International Union for the Conservation of Nature (IUCN) Category I and II.
- ING will not finance operations or any newly developed assets that involve illegal logging, deforestation or burning down of tropical forests, or removal of primary or High Conservation (HCV) forests.
- ING conducts enhanced due diligence before financing projects requiring significant land-use change, and for operations impacting IUCN Category III and IV sites or potentially vulnerable ecosystems including 'Key Biodiversity Areas'. These are home to critical populations of the world's threatened species.

Furthermore, ING has sector-specific minimum standards aiming at minimising impacts within industries, specifically targeting the sectors chemicals, bioenergy, forestry & agricultural commodities, manufacturing, metals & mining, and shipping.

Some examples of restrictions to most harmful practices within sectors with a high risk of impacting the state of species are:

- ING has no intention of expanding its palm oil client base. For existing clients, ING performs strict assessment criteria that are closely monitored
- ING will not directly finance artisanal and small-scale mining (ASM) companies or activities
- Use of endangered species or non-human primates for all testing/experimental purposes; and
- Arctic offshore oil & gas exploration and production.



ING requires all relevant clients to adopt the Forest Stewardship Council (FSC) schemes or the programme for the endorsement of forest certification schemes. This includes wood plantations, traders, pulp producers, and secondary processors. ING also requires production, sourcing, and consumption from ecosystems to limit the impact on species.

2. Steering the portfolio and engage with clients to halt and reverse nature loss:

ING aims to align the loan portfolio with global nature protection goals, focusing on most impactful sectors. The bank encourages clients to reduce negative impacts on nature, manage nature-related risks, and disclose relevant metrics. Financial products, such as sustainability-linked loans, incentivise clients to make nature-friendly business decisions.

Since 2024, ING has been engaging with corporate clients from the raw materials, food, and agriculture sectors, where the greatest risks for deforestation and ecosystem conversion exist. High-risk commodities and clients are being mapped via an annually published assessment, and clients in scope are being encouraged to put in place commitments to achieve no-deforestation and no-ecosystem conversion and actions and targets to work towards full traceability in their supply chains. Full traceability helps to verify whether and where adverse impacts occur. The bank plans to engage with clients to discuss where they stand and what their commitment is.

Recommendations

Banks should embed biodiversity criteria directly into their risk frameworks, credit policies, and decision-making processes. This includes establishing clear exclusion criteria for protected areas, implementing enhanced due diligence for high-risk projects, and developing sector-specific standards for agriculture, mining, and forestry operations.

Financial institutions should further implement annual assessment processes to identify high-risk clients and commodities, encourage no-deforestation commitments, and leverage sustainability-linked loans to incentivize nature-positive practices. Banks should require adherence to recognized certification schemes while supporting client transition toward full supply chain traceability.



IMAGE SOURCE: dlegogrand_578096581 - stock.adobe.com

5. Reporting

Context

Banks face growing pressure to disclose biodiversity-related impacts, dependencies, risks, opportunities, and mitigation strategies. Both EU and global regulations are rapidly evolving, creating a complex reporting landscape with overlapping mandatory and voluntary framework.¹⁴ Together, these frameworks require and enable financial institutions to embed biodiversity into core risk, strategy, and disclosure processes.

The European Banking Authority (EBA) 2025 ESG guidelines explicitly require banks to integrate nature-related risks using the double materiality perspective. The Corporate Sustainability Reporting Directive (CSRD) with ESRS E4 forms the EU's biodiversity reporting cornerstone (EBA 2025, EFRAG 2023). It mandates disclosure of material impacts, dependencies, risks, and opportunities across value chains, with specific metrics covering

land-use change, ecosystem condition, and species protection. From a global perspective, the TNFD provides a voluntary framework using the LEAP approach (2024b). It has gained 500+ global adopters by late 2024, though implementation in Germany remains limited. The ISSB will release nature-related standards by 2026, potentially offering a global baseline and thereby accelerating convergence between frameworks. While voluntary initiatives like the SBTN and Carbon Disclosure Project (CDP) are gaining prominence, established frameworks such as the Global Reporting Initiative (GRI) are being superseded by mandatory reporting requirements like the ESRS. This fragmented environment forces banks to navigate overlapping requirements, unclear metrics, and limited guidance while anticipating further developments from EBA and ISSB.



CASE STUDY

TNFD Reporting Implementation



Process and Implementation

In 2022, biodiversity was recognised as a material issue in Commerzbank's materiality assessment, leading to the Bank's commitment to the TNFD in 2023. This commitment builds on previous initiatives aimed at enhancing sustainability reporting. To thoroughly assess portfolio risks related to biodiversity and climate, Commerzbank conducts annual materiality analyses utilising tools like Encore and the WWF Risk Filter. Additionally, the Bank has joined the „Biodiversity in Good Company“ initiative, which fosters cross-sector collaboration and the sharing of best practices. For the 2023 reporting year, Commerzbank aligned its disclosures with TNFD standards, with an ongoing commitment to developing and improving its reporting practices. The implementation of the sustainability report compliant with CSRD requirements has further supported the collection of biodiversity data, ultimately laying the groundwork for a consolidated Nature and Climate Report that meets the frameworks established by TNFD and TCFD.

¹⁴ See also the publications by UNEP-WCMC & UNEP FI (2025) and Green Finance Alliance (2025) for an in-depth discussion of biodiversity and nature-related regulation, disclosure standards and frameworks.



Challenges & Successes

The introduction of the CSRD and the recognition of biodiversity (E4) as a material topic significantly facilitated the collection of quantitative and qualitative data necessary for the Nature and Climate Report. This integration allowed the bank to efficiently leverage existing data in compliance with the CSRD requirements.

However, challenges remain, particularly regarding the completeness of data collection. Not all data points requested by the TNFD are currently available. This has resulted in gaps, especially concerning portfolio-specific data related to our clients. To address these challenges, Commerzbank continues to report to the best of its ability while actively working to close these gaps.

Outcomes & Benefits

The Commerzbank Nature and Climate Report offers a reader-friendly and comprehensive overview of the Bank's commitment to environmental sustainability, integrating both climate and nature considerations in a single document. This consolidated reporting aligns with TCFD and TNFD guidelines, enabling stakeholders to access vital information more easily than in previous reports. By presenting all relevant data in one place, the report enhances transparency and simplifies the assessment of the bank's environmental sustainability initiatives. This approach aims to improve understanding among stakeholders regarding the bank's strategies and objectives, thereby facilitating better engagement with clients and supporting Commerzbank's efforts to strengthen its reputation in the financial sector.

Next Steps

Commerzbank is committed to continuously improving its Nature and Climate Report in alignment with TNFD and TCFD guidelines. Currently, the bank's disclosure does not fully meet all aspects of these frameworks. To address this, Commerzbank will focus on closing data gaps and enhancing its internal processes. In the future, the Bank plans to increase transparency by explicitly disclosing which TNFD and TCFD requirements remain unaddressed in the report. This proactive approach will not only strengthen the Bank's sustainability efforts but also build trust with stakeholders by highlighting areas for improvement.

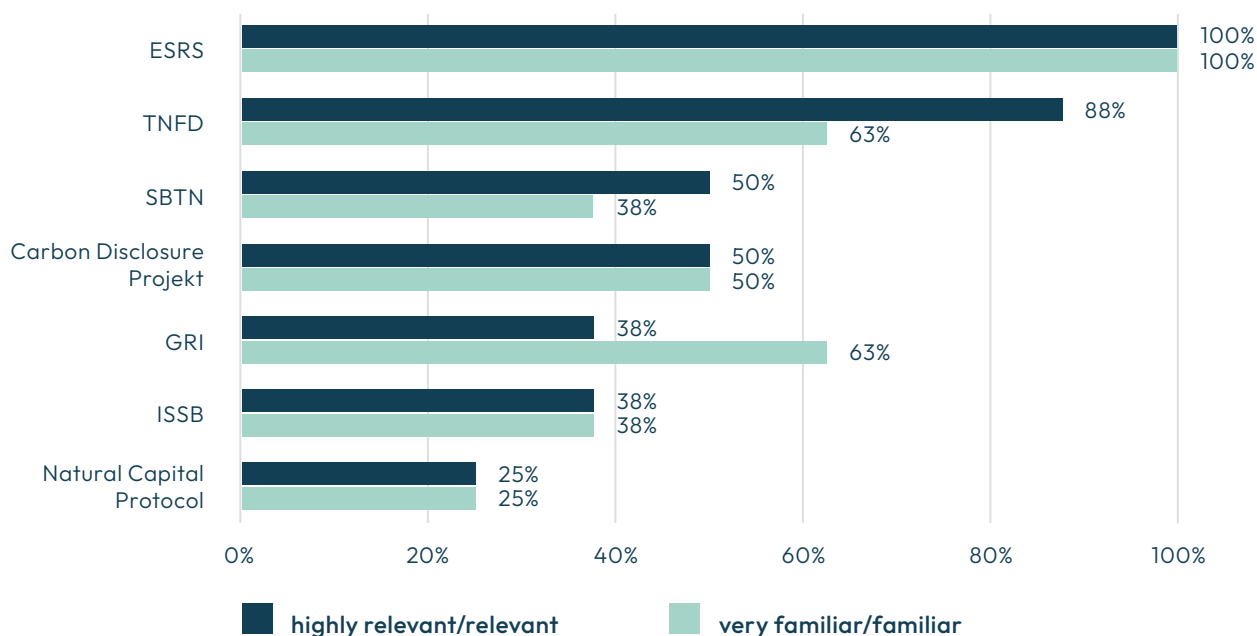
Status Quo

The survey results confirm that regulatory compliance is a key driver for advancing biodiversity reporting. 88% of surveyed banks cite regulation as a strong or very strong driver. As can be seen in **Figure 8**, The ESRS emerged as the most relevant reporting standard across all institutions. While TNFD was widely viewed as relevant, there is a small gap between its perceived importance and actual familiarity among institutions. SBTN is not as relevant but also shows a relevance-familiarity gap. The roles of ISSB and Natural Capital Protocol in biodiversity reporting have low levels of both relevance and familiarity suggesting their position is not yet established. While GRI exhibits relatively high levels of familiarity, its relevance is dropping significantly, which should not be a surprise as it has been mostly replaced by the ESRS.

Under the CSRD, 75% of banks classified biodiversity as a material topic in their 2024 reporting.¹⁵ However, only 25% published disclosures that fully addressed ESRS E4 requirements. Additionally, 12,5% assessed biodiversity as not material, and another 12,5% had not yet reported under CSRD. Standalone biodiversity reporting remains an emerging practice: 50% of institutions have not yet decided whether to publish a separate nature report. 37,5% are currently planning or developing one, while only 12,5% have already published one.

Moreover, our survey reveals that compliance with EBA guidelines in April was underway but uneven, with most institutions in preliminary stages: 50% had established internal project groups, and 70% had initiated preliminary discussions.

Figure 8: Relevance of and Familiarity with Standards



¹⁵ Other studies found lower numbers between 31 and 46%. A recent study from PwC (2025b) found for a sample of 34 financial institutes from Europe that 56% identified E4 as material. Another study from PwC (2025c) found that 43% of companies from all sectors in Europe identified E4 as material. Further, EFRAG (2025) found that 46% of non-financial companies and 38% of financial institutes from Europe identified E4 as material. Last, Deloitte (2025) found for Germany that 31% of companies from all sectors and 44% from the financial sector identified E4 as material.

By August this has significantly changed, with 70% already being in the implementation phase.¹⁶

The complexity of biodiversity reporting requirements will continue to intensify. Financial institutions face growing expectations to deliver more accurate, forward-looking, and comparable disclosures. Our analysis has identified two crucial gaps that hinder effective biodiversity reporting: the relevance-familiarity gap with respect to regulations and standards, and the materiality-reporting gap. Additionally, there is a persistent data gap. Biodiversity-related data, especially from SMEs and non-listed companies, remains limited, fragmented, and difficult to access. Without reliable, forward-looking data, financial institutions struggle to fulfil disclosure requirements.



IMAGE SOURCE: familie-eisenlohr.de_459551231 - stock.adobe.com

Recommendations

To address these challenges, banks should focus on several critical actions. First, closing the materiality-reporting gap requires prioritising the implementation of CSRD and ESRS disclosure requirements.

Familiarity gaps with TNFD and SBTN may be closed through training and knowledge-building. In addition, banks could consider becoming TNFD adopters to align with global standards. Developing standalone biodiversity reports can support transparency and provide an avenue to share relevant and additional information with stakeholders.

Investments in data infrastructure and tools are essential. This includes collecting more granular, location-specific data from clients, as well as adopting appropriate metrics and methodologies for measuring biodiversity impacts and risks. Robust materiality analyses based on quantitative data should guide disclosure content and risk prioritisation.

Institutions also need to monitor the implementation of EBA Pillar III requirements to support regulators to identify and close regulatory gaps. Moreover, they could contribute to the development of sector guidelines, whitelists, and internal approaches to standardise reporting practices. This work should be supported by enhanced internal governance and cross-functional collaboration.

¹⁶ The data of the survey was collected in April. We collected data again in August for the question on the EBA reporting status.

Messages for Policy Makers & Regulators

Based on our analysis of implementation challenges faced by banks in Germany, we derive four messages for policy makers and regulators. These recommendations address the question how regulation can support financial institutions in effectively integrating biodiversity into strategy and operations. These messages represent our perspective on creating a regulatory environment that supports meaningful biodiversity action, while maintaining operational feasibility.

1. Clarify Accountability and Avoid Disproportionate Burden on Banks

Regulators should recognise that banks are not the root cause but the transmitters of biodiversity and nature risks and depend on data from their clients in the real economy. Current trends show an increasing regulatory burden being placed on banks through frameworks like the EBA Guidelines. At the same time, current Omnibus proposals go way beyond simplification and would potentially deregulate 80-94% of companies that were in scope of CSRD (Rasche et al. 2025). This creates a regulatory discrepancy where reporting by key sectors is being reduced, while responsibility on banks is increased. This creates implementation challenges that must be addressed to ensure balanced responsibilities.

2. Focus Corporate Reporting Requirements and CSRD/ESRS Framework

Refine mandatory reporting standards for the real economy, as financial institutions rely heavily on corporate data to assess biodiversity risks and impacts. While a simplification of reporting regulation is welcome, the focus should be on improving the usability of ESRS, and in particular the environmental standards, as they would be a major enabler for biodiversity and nature transparency. This effort should involve collaborative work

between regulators, banks, and the real economy to develop sector-specific requirements that are both practical and effective.

3. Address Implementation Gaps and Provide Practical Guidance

Address current gaps and uncertainties in EBA Guidelines, as the sector- and location-specific expectations are challenging to implement due to data gaps and lack of analytical tools. Banks need more clarity and practical guidance to translate regulatory expectations into feasible internal processes.

4. Invest in Data Infrastructure and Analytical Tools

Enhance national biodiversity data infrastructure, as banks face major challenges due to insufficient and fragmented datasets. There is a strong need for centralised, reliable biodiversity datasets at national level to enable efficient portfolio analysis and target setting. Additionally, strengthen analytical tools to support banks – the lack of comprehensive tools for biodiversity risk analysis is a major obstacle requiring investment in open-access, scientifically robust tools.



IMAGE SOURCE: artijazz_93484030 - stock.adobe.com

Reference List

BMUV (2024)

Nationale Strategie zur biologischen Vielfalt 2030

<https://www.bundesumweltministerium.de/download/die-nationale-strategie-zur-biologischen-vielfalt-2030-nbs-2030>

Convention on Biological Diversity (2022)

15/4: Kunming Montreal Global Biodiversity Framework (COP 15 Doc. CBD/COP/DEC/15/4)

<https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf>

Deloitte (2025)

Praxis der Nachhaltigkeitsberichterstattung nach CSRD/ESRS: Eine Analyse börsennotierter Unternehmen für das Geschäftsjahr 2024, Drittes Update Stand 15. Mai 2025

<https://image.marketing.deloitte.de/lib/fe31117075640474771d75/m/1/2db967c2-fdef-4dcb-a6df-09aa22673dc2.pdf>

Dunya Analytics (2025)

Nature Risk Made Simple: Your Step-by-Step Guide to Confident Disclosures

<https://www.dunya-analytics.com/insights/nature-risk-made-simple-get-started>

EBA (2025)

Guidelines on the management of environmental, social and governance (ESG) risks

<https://www.eba.europa.eu/publications-and-media/press-releases/eba-publishes-its-final-guidelines-management-esg-risks>

ECB (2023a)

Living in a world of disappearing nature: physical risk and the implication for financial stability, Occasional Paper Series No 333

<https://www.ecb.europa.eu/pub/pdf/scpops/ecb.op333~1b97e436be.en.pdf>

ECB (2023b)

The impact of the euro area economy and banks on biodiversity, Occasional Paper Series No 335

www.ecb.europa.eu/pub/pdf/scpops/ecb.op335~79fbc42228.en.pdf

EFRAG (2023)

European sustainability reporting standards (ESRS)

<https://xbrl.efrag.org/e-esrs/esrs-set1-2023.html#d1e22476-3-1>

EFRAG (2025)

State of Play 2025 Implementation of the European Sustainability Reporting Standards (ESRS):

Observed Practices based on statements issued as of 20 April 2025

https://www.efrag.org/sites/default/files/media/document/2025-07/EFRAState%20of%20Play%202025%20Report_0.pdf

ENCORE (2024)

Methodology

<https://encorenature.org/en/data-and-methodology/methodology>

European Commission (2020)

EU Biodiversity Strategy for 2030: Bringing nature back into our lives

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A52020DC0380>

Finance for Biodiversity Foundation (2022)

ACT NOW! The Why and how of biodiversity integration by financial institutions

https://www.financeforbiodiversity.org/wp-content/uploads/FfB-Foundation_Act-now_Guide-on-biodiversity-integration.pdf

Finance for Biodiversity Foundation (2025)

Biodiversity measurement approaches
A practitioner's guide for financial institutions

https://www.financeforbiodiversity.org/wp-content/uploads/Biodiversity-measurement-approaches_A-practitioners-guide-for-financial-institutions_4th-edition.pdf

Green Finance Alliance (2025)

Biodiversity and the core business of financial companies: Guidelines for integrating biodiversity into the core business of financial companies

https://www.umweltbundesamt.at/fileadmin/site/themen/klima/greenfinance/en/gfa_guidelines_biodiversity_en_final.pdf

ICMA (2025)

Sustainable Bonds for Nature:
A Practitioner's Guide

<https://www.icmagroup.org/assets/documents/Sustainable-finance/2025-updates/Sustainable-Bonds-for-Nature-A-Practitioners-Guide-June-2025.pdf>

IUCN (2021)

Guidelines for planning and monitoring corporate biodiversity performance

<https://doi.org/10.2305/IUCN.CH.2021.05.en>

Nature Positive Initiative (2023)

The definition of nature positive

<https://www.naturepositive.org/app/uploads/2024/02/The-Definition-of-Nature-Positive.pdf>

Orbiture (2025)

Biodiversität in Finanzinstitute integrieren

<https://www.orbiture.de/blog-posts/biodiversitaetsrisiken>

PwC (2024)

Natur- und Biodiversitätsschutz im deutschen Finanzsektor – eine Bestandsaufnahme

https://www.wwf.de/fileadmin/fm-wwf/Publikationen-PDF/Biologische_Vielfalt/WWF-Studie-Biodiversitaets-schutz-Finanzsektor.pdf

PwC (2025a)

Der Business Case für Naturschutz bei Immobilieninvestments: Methodische Ansätze zur Quantifizierung des Mehrwerts von Natur in der Immobilienfinanzierung

<https://www.pwc.de/de/nachhaltigkeit/sustainable-finance/business-case-for-nature-immobilienfinanzierung-und-naturschutz.html>

PwC (2025b)

Benchmarking Banking & Capital Markets
CSRD-Berichterstattung 2024

<https://www.pwc.de/de/nachhaltigkeit/sustainable-finance/csrd-benchmarking-von-banken-und-versicherungen.html>

PwC (2025c)

Ergebnisse aus der ersten CSRD-Berichterstattungswelle

<https://www.pwc.de/de/content/c75dec72-3186-4c27-9fdf-3660cf1c5270/pwc-csrd-first-reporters-survey.pdf>

Rasche et al (2025)

Scenarios for CSRD Scope Amendments:
Advancing reporting scope while reducing further burden

https://papers.ssrn.com/sol3/papers.cfm?abstract_id=5350977

SBTN (2024)

Corporate Manual for setting science-based targets for nature

<https://sciencebasedtargetsnetwork.org/wp-content/uploads/2024/07/Corporate-manual-for-setting-SBT-for-Nature.pdf>

Sustainable Finance-Beirat (2025)

Biodiversität und Sustainable Finance: Biodiversität als wesentlicher Bestandteil von Sustainable Finance, Positionspapier der Arbeitsgruppe Biodiversität

https://sustainable-finance-beirat.de/wp-content/uploads/2025/03/202503_SFB_Stellungnahme_BioDiv.pdf

TNFD (2023)

The TNFD Nature-related Risk and Opportunity Management and Disclosure Framework: Financial institutions metrics supplement

<https://tnfd.global/publication/tnfd-v0-4-annex-4-5/>

TNFD (2024a)

Additional guidance for financial institutions

<https://tnfd.global/publication/additional-disclosure-guidance-for-financial-institutions/#publication-content>

TNFD (2024b)

Guidance on the identification and assessment of nature-related issues: the LEAP approach

<https://tnfd.global/publication/additional-guidance-on-assessment-of-nature-related-issues-the-leap-approach/#publication-content>

TNFD (2024c)

Taskforce on Nature-related Financial Disclosures (TNFD) Recommendations

<https://tnfd.global/publication/recommendations-of-the-taskforce-on-nature-related-financial-disclosures/#publication-content>

UNEP FI (2023)

Banking on nature: What the Kunming-Montreal Global Biodiversity Framework means for responsible Banks

<https://www.unepfi.org/nature/gbf-finance-sector/>

UNEP-WCMC & UNEP FI (2025)

Accountability for Nature Comparison of nature-related assessment and disclosure frameworks and standards

<https://www.unepfi.org/publications/accountability-for-nature-comparison-of-nature-related-assessment-and-disclosure-frameworks-and-standards/>

VfU (2024)

Themenradar 2025

https://vfue.de/wp-content/uploads/2024/11/20241129_Themenradar-2025.pdf

WWF (2022)

Biodiversity Risk Filter

<https://riskfilter.org/biodiversity/home>

Appendix: Impact Driver Metrics

As part of our cluster initiative, we have made an attempt to identify metrics that are based on the impact drivers and sector agnostic and potentially relevant across banks independent of particular portfolio composition. In a workshop, we have first identified the three most relevant impact drivers: changes in land and sea use, pollution (air, water and soil), and direct exploitation. Climate change was considered to not be as relevant as the banks

are already relatively advanced in assessing their climate-related impacts. Invasive species were not considered as priority at this point, also due to the lack of available information to assess them. As a second step, working groups have researched and brainstormed relevant metrics and data sources for the three impact drivers. As of now further feasibility tests have not been conducted. The results are presented in this table.

Table A1: Impact driver metrics for Land Use, Pollution and Direct Exploitation

Changes in Land and Sea Use	Pollution (Air, Water, Soil)	Direct Exploitation: impact	Direct Exploitation: ecosystem status
Metric: Proximity to protected areas Data Source: IBAT	Metric: Non-GHG air pollutants (e.g. PM2.5, NOx, SOx, NH3) Data Source: EXIOBASE, European Industrial Emissions Portal	Metric: Volume of natural resource extraction (timber, fish, water) Data Source: Company disclosures, FAO, Eurostat, satellite imagery	Metric: MSA (Mean Species Abundance) Data Source: Iceberg Data Lab, CDC Biodiversité
Metric: Deforestation / Deforestation governance Data Source: Forest IQ, Forest 500, CDP Questionnaire	Metric: Total hazardous waste generated Data Source: EXIOBASE	Metric: Affected area by extractive operations Data Source: EIA reports, local land-use registries, satellite data	Metric: PDF (Potentially Disappeared Fraction) Data Source: Clarity AI, ISS, ESG, MSCI
Metric: Land sealing (area) Data Source: Municipal land use data, satellite imagery	Metric: Exposure to sectors with high pollution risks Data Source: ENCORE	Metric: Number or risk status of species affected Data Source: IUCN Red List, EIAs, IBAT, scientific studies	Metric: STAR (Species Threat Abatement and Restoration) Data Source: IBAT, S&P
Metric: Sea use change Data Source: FAIRR	Metric: Generation and disposal of microplastic Data Source: Future global plastic waste projections	Metric: Use of certified sustainable resources (e.g. FSC, MSC) Data Source: FSC, MSC registries, company sustainability reports	Metric: BII (Biodiversity Intactness Index) Data Source: PREDICTS database, ARCGIS

Changes in Land and Sea Use	Pollution (Air, Water, Soil)	Direct Exploitation: impact	Direct Exploitation: ecosystem status
Metric: Use of coastal areas Data Source: -----	Metric: Toxic water and soil pollutants Data Source: World Bank, European Industrial Emissions Portal	Metric: Percentage of companies with biodiversity-related impact assessments or mitigation plans Data Source: CDP Biodiversity, ESG reports, SBTN	Metric: EII (Ecosystem Integrity Index) Data Source: Single.Earth, S&P
Metric: ----- Data Source: -----	Metric: Untreated connected wastewater Data Source: Aqueduct	Metric: ----- Data Source: -----	Metric: ----- Data Source: -----

Approach of the Sustainable Finance Cluster Initiative

To assess the current state of biodiversity integration in the financial sector and identify actionable pathways forward, the Sustainable Finance Cluster launched an initiative in early 2025.

The following empirical methods were employed in the period of March – August to create insights and develop evidence-based recommendations:

Focus Group Workshops

Format: Pre-competitive exchange between institutions (presentations and discussions)

Focus: Key challenges, current practices, and emerging solutions

Participants: Commerzbank, DekaBank, DKB, DZ BANK, Helaba, ING Germany, KfW, Umweltbank, and VfU

Survey

Focus: Governance, disclosure, and portfolio analysis

Sample: the eight participating banks of the Cluster initiative

Document Analysis

Focus: Risk identification, dependencies, sector prioritisation, data use, and ESG integration

Sample: TNFD-aligned reports from Commerzbank, ING, UBS, Robeco, Norges Bank, and Covivio

Case Studies

Focus: Practical insights on processes, challenges, outcomes, benefits, and next steps on various aspects of organisational biodiversity integration: how to get started, portfolio analysis, operational integration, and reporting

! Disclaimer

The views and opinions expressed in this position paper are those of the contributing authors and do not necessarily reflect the official policy or position of all stakeholders involved, including members of the focus groups.

This document solely serves as general background material in the field of Banking and Biodiversity. The authors and members of the Sustainable Finance Cluster have not specifically verified the information contained herein, nor can they be held responsible for any subsequent use which may be made of this information.

Acknowledgements

This initiative has received funding from the Hessian Ministry of Economy, Energy, Transport, Housing and Rural Areas.

We thank the participants of the Cluster Initiative for their contributions:

Alexandra Subke (Commerzbank)
Insa Schüßler (DKB)
Dr. Johanna Gloël (ING)
Jonas Topp (Commerzbank)
Katja Schwengler (DZ BANK)
Liesa Heidl (ING)
Patrick Weltin (VfU)
Philipp Kuhs (Umweltbank)
Serkan Sayman (DekaBank)
Sofia Denfeld (KfW)
Susanna Mütze (Helaba)
Svenja Distler (Umweltbank)

We are also grateful for contributions to the workshops from:

Malte Hessenius (Climate&Company & Datura)
Prof. Dr. Ralf Frank (TNFD consultation group Germany on 'Usability' & Sustainserv)
Oliver Mergens (Vaude)
Kristina Brennecke
Zarah Hausen & Angela McClellan
(TNFD consultation group Germany on 'Business Cases for Nature' & PwC)

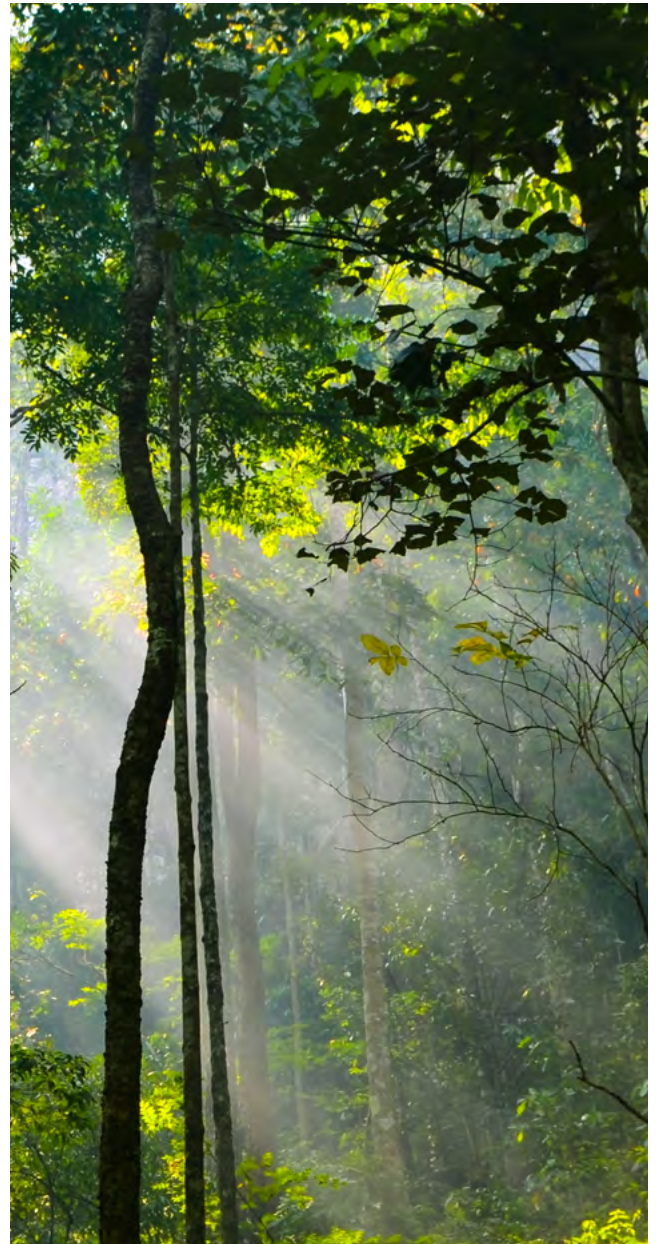


IMAGE SOURCE: choknitl_491471254 - stock.adobe.com

Imprint

Sustainable Finance Cluster e.V.
www.sustainablefinancecluster.com

Managing Director
Matthias Hübner
matthias.huebner@sustainablefinancecluster.com

Lead Author
Dr. Lukas Figge-Muschalik
lukas.figge@sustainablefinancecluster.com

With contributions from Luca Steinhauer,
Carola Menzel (FS-UNEP Centre) and Yashada Kaskhedikar

Layout by YPSPUNKT Fotografie & Design