REGULATING FINANCE FOR BIODIVERSITY

An Assessment for the Global Biodiversity Framework

About this report

This report was commissioned to Profundo by Rainforest Action Network, on behalf of the Forests & Finance Coalition. The report offers concrete suggestions on how financial regulations in key jurisdictions could support the achievement of critical biodiversity goals. Specifically, it provides assessment and proposals in relation to the obligations upon parties to the United Nations Convention on Biological Diversity, as set out in Target 14 of the Global Biodiversity Framework.

About Forests & Finance

Forests & Finance is a coalition of ten campaign, grassroots and research organisations: Rainforest Action Network (RAN), TuK Indonesia (TuK), Profundo, Amazon Watch, Repórter Brasil, BankTrack, Sahabat Alam Malaysia (SAM), Friends of the Earth US (FOE), Centre pour l'Environnement et le Développement Cameroun (CED) and Milieudefensie. We maintain an open-source database of financial flows to hundreds of companies involved in forest-risk commodity production, undertake an annual assessment of bank and investor policies, and expose cases of deforestation and rights violations connected to financial institutions. We coordinate investigations, analysis, advocacy and campaigns in support of the rights and control of communities in land and forest stewardship and seek to hold the financial sector to account for its role in facilitating social and environmental harm.

About Profundo

With profound research and advice, Profundo aims to make a practical contribution to a sustainable world and social justice. Quality comes first, aiming at the needs of our clients. Thematically we focus on commodity chains, the financial sector and corporate social responsibility. More information on Profundo can be found at www.profundo.nl.

Authorship

This report was researched and written by Jan Willem van Gelder, Pavel Boev, Andrea Fernandez, Yu Chen, Debbie Schepers, Ward Warmerdam and Tom Picken. Correct citation of this document: Van Gelder, J.W. et al. (2024, October), *Regulating finance for biodiversity – An Assessment for the Global Biodiversity Framework,* Amsterdam, The Netherlands: Forests & Finance.

Acknowledgements

The authors would like to thank all partners of Forests & Finance as well as external experts for their constructive feedback on drafts of the report: Merel van der Mark (Forests & Finance), Danielle van Oijen (Milieudefensie), Jonas Hulsens (Milieudefensie), Shona Hawkes (RAN), Katherine Lu (FoE US), Jeff Conant (FoE US), Steph Dowlen (RAN), Silvio Eduardo Alvarez Candido (UFSCAR), Lim Li Ching (TWN), Goh Chien Yen (TWN), Jessica Dempsey (TWN), Nora Sausmikat (Urgewald), Sergio Pereira Leite (CPDA/UFRRJ), Elena Almeida (Grantham Institute / NGFS), Wen Bo (China), Allison Fajans-Turner (RAN), April Merleaux (RAN), Simone Lovera (RAN), Karen Vermeer (Environmental Paper Network) and Karina Feliciano (IDEC).

Disclaimer

The authors observe the greatest possible care in collecting information and drafting publications, but cannot guarantee that this report is complete. The authors assume no responsibility for errors in the sources quoted, nor for changes after the date of publication. When any error in this report comes to light, The authors will promptly correct it in a transparent manner.

Publication date: October 2024

Cover Photo: Rainforest Action Network

Contents

Summary 1

Abbreviations 8

Introduction 10

Chapter 1 Key jurisdictions and forms of financing of forest-risk commodities 12

1.1 The Forests & Finance database 12
1.2 Forest-risk credit per country 13
1.3 Forest-risk credit in Brazil and Indonesia 14
1.4 Investment products in Brazil 15
1.5 Forest-risk bond issuances in China 15
1.6 Forest-risk investment per region 16

Chapter 2 Types of financial regulation 18

2.1 Regulations on risk management and financial stability 18
2.2 Regulations ensuring the proper functioning of financial markets 19
2.3 Monetary policy 19
2.4 Regulations on money laundering and financial crime 20
2.5 Regulations on corporate disclosure 20
2.6 Regulations stimulating the financing of sustainable activities 21
2.7 Regulations protecting human rights and/or the environment 22

Chapter 3 Banking regulations in Indonesia 24

3.1 Overview of the regulatory landscape for banks in Indonesia 24
3.2 Regulations by Bank Indonesia 24
3.2.1 Reduced reserve requirements for environmental credit 25
3.2.2 Central bank reserves portfolio 25
3.2.3 Corporate asset purchase programme and collateral framework 25
3.3 Regulations by the Financial Services Authority 25
3.3.1 Sustainable Finance Roadmap Phase II (2021–5) 26
3.3.2 Implementation of Sustainable Finance Regulation 26
3.3.3 Technical Guidelines for implementing Sustainable Finance 27
3.3.4 Guidelines on climate-risk stress testing 27
3.3.5 Circular Letter on sustainability disclosures 28
3.3.6 Palm Oil Plantation Credit and Financing Guidelines 28
3.3.7 P2SK Law (Financial Sector Omnibus Law) on developing and strengthening the financial sector 29
3.4 Other relevant regulations 29
3.4.1 ASEAN Taxonomy 29
3.4.2 Indonesian Taxonomy 31
3.4.3 Green bonds: OJK Regulation 60 /POJK.04/2017 and 18/POJK.04/2023 32
3.4.4 ESG regulations and performance of the Indonesian Stock Exchange (IDX) 32
3.5 Case: Sinar Mas Group 33
3.5.1 Description of the case 33
3.5.2 How Indonesian regulations deal with this case 34
3.6 Possible improvements of relevant regulations in Indonesia 35

3.6.1 Assessment of the present Indonesian regulations ... 35
3.6.2 Recommendations for Indonesian legislators and banking regulators ... 36
Chapter 4 Banking and investment regulations in Brazil ... 38
4.1 Overview of the regulatory landscape for Brazilian banks and investment products 38
4.2 Monetary policies ... 38
4.2.1 Collateral and asset purchase policies ... 38
4.2.2 Central bank reserves portfolio ... 38
4.3 Banking supervision ... 39
4.3.1 Assessment of environmental, social and climate risks ... 39
4.3.2 Policy on Social, Environmental, and Climate Responsibility (PSRAC) ... 39
4.3.3 Disclosure of Social, Environmental, and Climate Risks and Opportunities (GRSAC Report) ... 39
4.4 Other relevant regulations ... 40
4.4.1 Sustainable Finance Taxonomy ... 40
4.4.2 Rural credit programmes ... 40
4.4.3 Regulations on investment products ... 41
4.4.4 CVM Sustainable Finance Action Plan ... 42
4.4.5 The Brazilian Development Bank (BNDES) ... 42
4.5 Case: JBS ... 43
4.5.1 Description of the case ... 43
4.5.2 How Brazilian regulations deal with this case ... 44
4.6 Possible improvements of relevant regulations in Brazil ... 44
4.6.1 Assessment of the present Brazilian regulations ... 44
4.6.2 Recommendations for Brazilian legislators and financial sector regulators ... 45
Chapter 5 Capital market regulations in China ... 48
5.1 Overview of the regulatory landscape for bond issuances in China ... 48
5.2 Regulatory bodies affecting issuers on the Chinese capital market ... 48
5.2.1 Financial regulators ... 48
5.2.2 Environmental authorities ... 50
5.2.3 Economic and corporate regulators ... 50
5.2.4 Stock exchanges ... 51
5.3 Regulatory documents affecting how issuers deal with biodiversity risks ... 51
5.3.1 Functioning of the capital market ... 52
5.3.2 Green bonds ... 54
5.3.3 Environmental information disclosure of listed companies and bond issuers ... 56
5.3.4 Green finance strategy ... 58
5.3.5 Stock Exchange ESG reporting requirements for share and bond issuers ... 59
5.4 Case: Sudcam ... 60
5.4.1 Description of the case ... 60
5.4.2 How Chinese regulations deal with this case ... 61
5.5 Possible improvements of relevant regulations in China ... 61
5.5.1 Assessment of the present Chinese regulations ... 61
5.5.2 Recommendations for Chinese legislators and financial sector regulators ... 63
Chapter 6 Transparency and due diligence regulations for investors in the EU ... 65

6.1 Overview of the regulatory landscape for investors in the EU 65
6.1.1 Main decision-making bodies in the EU 65
6.1.2 Specialised agencies 66
6.2 European transparency and due diligence regulations for investors 66
6.2.1 EU Taxonomy for Sustainable Activities 67
6.2.2 EU Green Bonds Regulation 69
6.2.3 Sustainable Finance Disclosure Regulation 69
6.3 Corporate reporting and due diligence regulations 70
6.3.1 EU Corporate Sustainability Reporting Directive (CSRD) 70
6.3.2 European Regulation on Deforestation-free products (EUDR) 72
6.3.3 EU Corporate Sustainability Due Diligence Directive (EU CSDDD) 73
6.4 Case: Bunge 73
6.4.1 Description of the case 73
6.4.2 How EU regulations deal with this case 74
6.5 Possible improvements of relevant regulations in the European Union 75
6.5.1 Assessment of the present European regulations 75
6.5.2 Recommendations for European legislators and financial sector regulators 75
Chapter 7 Transparency and due diligence regulations for investors in the United States 78
7.1 Overview of the regulatory landscape for investors in the United States 78
7.2 SEC regulations 78
7.2.1 Transparency regulations for investors 78
7.2.2 Transparency regulations for issuers 79
7.2.3 Regulations preventing greenwashing 80
7.3 Other relevant regulations 81
7.3.1 Lacey Act 81
7.3.2 FOREST Act 81
7.3.3 TREES Act 82
7.4 Case: Cargill 82
7.4.1 Description of the case 82
7.4.2 How US regulations deal with this case 83
7.5 Possible improvements of investment regulations in the United States 84
7.5.1 Assessment of the present American regulations 84
7.5.2 Recommendations for American legislators and financial sector regulators 84
Chapter 8 Conclusions and recommendations 87
8.1 Suggested reforms in five jurisdictions 87
8.2 Recommendations for all countries 91
8.2.1 Regulations on risk management and financial stability 92
8.2.2 Regulations ensuring the proper functioning of financial markets 93
8.2.3 Monetary policy 94
8.2.4 Regulations on money laundering and financial crime 94
8.2.5 Regulations on corporate disclosure 95
8.2.6 Regulations stimulating the financing of sustainable activities 96
8.2.7 Regulations protecting human rights and/or the environment 97
8.2.8 Strengthening the regulatory environment 97

References..99
Appendix 1 Regulations assessment framework 116

List of figures

Figure 1 Forest-risk credit per forest-risk country (2016–June 2024) 13
Figure 2 Forest-risk credit per country of financier (2016–June 2024)..............................14
Figure 3 Structure of the ASEAN Taxonomy...30
Figure 4 China's new financial regulatory regime since the reform of March 2023............49

List of tables

Table 1 Translation of GBF targets in assessment criteria for financial regulations 2
Table 2 Assessment of the GBF alignment of financial regulations in five jurisdictions 3
Table 3 Forest-risk credit by banks in Brazil and Indonesia by type (2016–June 2024, USD mln) 14
Table 4 Forest-risk credit by Chinese financial institutions (2016–June 2024, USD mln) ..16
Table 5 Forest-risk investment by region (2024 June, USD mln).......................................17
Table 6 EO3 (Biodiversity) Criteria in the ASEAN Taxonomy 30
Table 7 Assessment of the present Indonesian regulations against GBF targets 35
Table 8 Assessment of the present Brazilian regulations against GBF targets 44
Table 9 Assessment of the present Chinese regulations against GBF targets 62
Table 10 Assessment of the present European regulations against GBF targets 75
Table 11 Assessment of the present US regulations against GBF targets 84
Table 12 Suggested reforms of financial regulations per jurisdiction 87
Table 13 Regulations assessment framework: Assessment criteria 117
Table 14 Regulations assessment framework: Scoring table 117

Summary

In December 2022 the parties to the United Nations Convention on Biological Diversity (CBD) adopted the Kunming-Montreal Global Biodiversity Framework (GBF), which sets out an ambitious pathway to reach the global vision of a world living in harmony with nature by 2050. Among the GBF's key elements are four goals for 2050 and 23 targets for 2030. This report aims specifically to address the commitment of countries under target 14 of the GBF, which includes an obligation on states to fully integrate biodiversity into financial sector regulations.

TARGET 14: *Integrate biodiversity in decision-making at every level.*

Ensure the full integration of biodiversity and its multiple values into policies, regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and, as appropriate, national accounting, within and across all levels of government and across all sectors, in particular those with significant impacts on biodiversity, progressively aligning all relevant public and private activities, and fiscal and financial flows with the goals and targets of this framework.

Using Target 14 as the research starting point, the authors of this report then devised an indicative assessment framework to test how the current state of financial regulations is equipped to meet a selection of other critical GBF targets. The additional targets selected for this assessment were:

Target 1: *Plan and manage all areas to reduce biodiversity loss;*

Target 10: *Enhance biodiversity and sustainability in agriculture, aquaculture, fisheries and forestry;*

Target 15: *Businesses assess, disclose and reduce biodiversity-related risks and negative impacts.*

Focus on five jurisdictions

F&F maintains a database which monitors financing and investment flowing to the 300 most important producers and traders of six forest-risk commodities most directly responsible for tropical deforestation: beef, palm oil, pulp & paper, rubber, soy and timber. Data on diversified companies are adjusted to focus only on the amounts used for these commodities. Based on an analysis of these data, we identified the five most important jurisdictions which could regulate the financing flows to forest-risk commodities to allow these to align with the targets of the Global Biodiversity Framework (GBF). These are: Indonesia, Brazil, China, the European Union and the United States. For each jurisdiction, we identified a different type of financing as most relevant.

Bank credits in Indonesia and Brazil

Banks operating in Indonesia and Brazil account for 72% of all recorded credit going worldwide to production and primary processing of the six forest-risk commodities, with a value of USD 286 billion in the past eight years. Brazilian banks account for 48% and Indonesian banks for 10%. Foreign bank subsidiaries in Brazil and Indonesia account for 9% and 5% respectively. Regulations in these two countries which can impact bank credit are therefore crucial. In Brazil regulations on investment products sold to private investors and used for financing the agricultural sector are also important. Government data shows that Brazilian investment instruments for the agricultural sector had an outstanding value of USD 187 billion in July 2024.

Bond and share issuances in China

Next to bank credit, the six forest-risk commodities are also financed by selling shares and bonds to investors. Chinese banks play a significant role in underwriting share and bond issuances by Chinese traders and producers of forest-risk commodities, for a value of USD 18 billion in the past eight years. Chinese regulations related to share and bond issuances are therefore important.

Investments in the European Union and the United States

Of total investment in forest-risk commodities, with a value of USD 41 billion as of June 2024, 39% are in the hands of North American investors and 8% in the hands of EU investors. Compared to

investors from other regions, North American and EU investors had the most diverse portfolios of forest-risk investment. Regulations stimulating US and EU investors to influence their investee companies in relation to biodiversity and human rights impacts could therefore be significant.

Types of financial regulation assessed

This report uses a broad definition of financial regulations, beyond what is normally defined as financial regulation or supervision. This definition encompasses all types of government laws, regulations and guidelines which have an impact on how financial institutions operate, especially when it comes to the financing of, and investment in, companies in the real economy. The following types of regulation are discerned:

- Regulations on risk management and financial stability
- Regulations ensuring the proper functioning of financial markets
- Monetary policy
- Regulations on money laundering and financial crime
- Regulations on corporate disclosure
- Regulations stimulating the financing of sustainable activities
- Regulations protecting human rights and/or the environment

Assessment framework for the GBF alignment of financial regulations

Table 1 presents the assessment framework used to assess how the various types of financial regulation in a given jurisdiction are equipped to address three priority Global Biodiversity Framework targets, one from each of the three categories in which the GBF targets are structured. Each of these targets were further defined in an assessment criterium relevant to the study.

Table 1 Translation of GBF targets in assessment criteria for financial regulations

Group	Target		Assessment criteria for financial regulations
Reducing threats to biodiversity	1	Plan and manage all areas to reduce biodiversity loss.	Financial regulations do not allow financing of, or investment in, companies involved in conversion of natural landscapes.
Meeting people's needs through sustainable use and benefit sharing	10	Enhance biodiversity and sustainability in Agriculture, Aquaculture, Fisheries and Forestry.	Financial regulations expect financial institutions to stimulate a just transition in the Agriculture, Aquaculture, Fisheries and Forestry sectors, which supports the rights of workers, peasants, fisher folk, indigenous peoples, traditional and local communities.
Tools and solutions for implementation and mainstreaming	15	Businesses assess, disclose and reduce biodiversity-related risks and negative impacts.	Financial regulations require transparency of all financing and investment flows and full disclosure of biodiversity and social impacts of these flows.

Assessment of the GBF alignment of financial regulations in five jurisdictions

Using the criteria defined in Table 1, each jurisdiction was evaluated for its unique combination of policies and regulations relevant to addressing credit and investment connected to harmful biodiversity and rights impacts. Overall, the results were extremely concerning, indicating poor integration of biodiversity into financial-sector regulation and supervision across the board. The report found that the United States performed the worst, with no meaningful consideration of biodiversity in its financial- sector regulations. Indonesia and China also scored poorly, though both show some references to biodiversity. Brazil performed slightly better, with some restrictions on financing companies involved in biodiversity destruction. The European Union scored marginally higher, adopting the double materiality principle in investor disclosure requirements. Table 2 summarises the assessments, using colour scores ranging from the worst score, *Dark red*, via *Light Red* and *Yellow*, to *Green,* the best score.

Table 2 Assessment of the GBF alignment of financial regulations in five jurisdictions

Assessment criteria	Target 1 Assessment:	Target 10 Assessment:	Target 15 Assessment:
(As defined by authors for the purpose of this study)	Financial regulations do not allow financing of, or investment in, companies involved in conversion of natural landscapes.	Financial regulations expect financial institutions to stimulate a just transition in the Agriculture, Aquaculture, Fisheries and Forestry sectors which supports the rights of workers, peasants, fisher folk, indigenous peoples, traditional and local communities.	Financial regulations require transparency of all financing and investment flows and full disclosure of biodiversity and social impacts of these flows.
Indonesian regulations for banks	Financial regulations do not limit financing or investing in conversion of natural landscapes in any way.	Financial regulations and taxonomies do give some guidelines on social and environmental issues, but these do not cover all relevant sectors and are not obligatory.	Financial regulations do require ESG reporting by banks, but do not demand transparency on financial flows and have no obligations on reporting on social and biodiversity impacts.
Brazilian regulations for banks and investment products	Restrictions related to the conversion of natural landscapes exist for government-controlled rural credit, but not for normal bank loans or for (tax-exempt) investment products benefiting the agricultural sector.	Financial institutions are required to elaborate a policy on Social, Environmental and Climate Responsibility, but are not explicitly expected to work towards a just transition in relevant sectors.	Financial regulations do require ESG reporting by banks, but do not demand transparency on financial flows (by banks and investment products) and have no obligations on reporting on social and biodiversity impacts.
Chinese regulations on share and bond issuances	Financial regulations do not limit security issuers being active in conversion of natural landscapes in any way.	The issuance of green bonds, whose proceeds can be used for a just transition of relevant sectors in China itself, is stimulated. But this does not cover foreign investment, nor normal corporate bonds.	Stock exchanges have issued guidance on disclosure on biodiversity and social impacts, but progress is expected on stricter reporting requirements. For now, they hardly cover impacts overseas, nor require transparency on where funds are invested (except for green bonds).
EU regulations for investors	Financial regulations do not prohibit investing in conversion of natural landscapes in any way. The EUDR does not yet cover financiers, while the SFDR does set some expectations in this respect but leaves it to fund managers how to implement them.	Financial regulations encourage financial institutions to stimulate a just transition in relevant sectors through the EU Taxonomy framework and the related Green Bonds Regulation. But these regulations fall short on sector-specific targets and do not cover social criteria.	Investment funds need to be transparent on the companies they invest in, but not pension funds and other investors. EU regulations and the reporting standard ESRS require disclosure of biodiversity and social impacts of investment. However, ESRS still lacks sectoral standards and not all investors are in scope.
United States regulations for investors	Financial regulations do not prohibit investment in companies involved in conversion of natural landscapes.	Financial regulations do not expect financial institutions to stimulate a just transition in relevant sectors.	Financial regulations do require investors to be transparent on the companies they invest in. Investors are not required to report on biodiversity and social impacts of their investment.

Suggested reforms in the five jurisdictions

Based on the shortcomings identified in Table 2, we identified the most urgent and critical reforms which could be implemented in the five different jurisdictions to bring them a step closer to meeting the targets of the GBF. This list is intended as a starting point for discussion, as it was beyond the scope of this research to consult a broad array of stakeholders on the recommendations.

- **Indonesian regulations for banks**
    - Include technical screening criteria for biodiversity-risk sectors in the Indonesia and ASEAN Taxonomies, and list eligible activities that contribute positively to biodiversity and human rights as well as unsustainable activities.
    - Make a transition plan mandatory for all banks and financial institutions, which aligns their portfolios with the taxonomies.
    - Strengthen the Palm oil financing guidelines of financial regulator OJK and develop other sector-specific financing guidelines.
    - Require banks to measure and report on their biodiversity-related impacts, to be transparent about which companies they finance and to integrate biodiversity impacts in their risk-management systems.
    - Due diligence requirements for banks on social and environmental risks and impacts need to be broadened from their direct clients to the entire corporate groups these belong to.
    - Introduce lower reserve requirements for sustainable finance products and higher capital requirements – and even limits on – exposures to companies harmful to biodiversity and human rights.
    - Include biodiversity and human rights criteria in Bank Indonesia's collateral list and asset purchase programme, and introduce preferential borrowing rates for sustainability-linked loans.
    - Apply strong fines and sanctions to hold banks accountable for living up to the requirements on biodiversity and human rights.
- **Brazilian regulations for banks and investment products**
    - Strengthen social and environmental restrictions on rural credit programmes and apply the same restrictive criteria to bank credits for downstream companies.
    - Set a clear framework for investment products, similar to the requirements for rural credit, including transparency on which companies and rural properties are financed.
    - Launch a Brazilian Taxonomy for Sustainable Finance, with sectoral guidance for sectors with high biodiversity risks, also defining which activities should be avoided.
    - Strengthen the screening policies of state-owned banks BNDES and Banco do Brasil.
    - Strengthen biodiversity and human rights criteria in the collateral list of the Central Bank of Brazil (BCB) and introduce them for its asset purchase programme. Also introduce preferential borrowing rates for sustainability-linked loans.
    - Require banks to measure the biodiversity impacts of their financing and integrate these in their risk-management systems.
    - Introduce lower reserve requirements for sustainable finance products and higher capital requirements for – and even limits on – exposures to companies harmful to biodiversity and human rights.
    - Require banks to develop transition plans in their Policy of Social, Environmental, and Climate Responsibility (PSRAC) for sectors with high impact on biodiversity such as agriculture, livestock and forestry.
    - Improve the Social, Environmental, and Climate Risks and Opportunities (GSRAC) Report by expecting transparency from the companies being financed by the bank and an assessment of the impacts of the bank's financing decisions on environmental and social issues.

  - Apply strong fines and sanctions to hold banks accountable for living up to the requirements on biodiversity and human rights.

- **Chinese regulations on share and bond issuances**
  - Prohibit the raising of funds through issuances for illegal activities and activities leading to conversion of natural landscapes (in China or overseas).
  - Develop the Green Bond Catalogue into a Sustainable Finance Taxonomy that includes sector-specific lists of eligible activities, as well as a list of activities to be avoided.
  - Mandate that 100% of the funds raised through green bonds must be allocated to genuinely sustainable activities.
  - Enhance independent third-party verification and certification processes to ensure that activities funded through green bonds are aligned with the Taxonomy.
  - Make the stock exchange *Guidances* on sustainability reporting standards for issuers, based on the double materiality approach, mandatory for all issuers.
  - Mandate financial institutions to conduct comprehensive environmental, social and governance (ESG) due diligence when underwriting or advising on corporate bonds, and to be transparent regarding their due diligence processes.
  - Oblige financial institutions to disclose information on the impacts on biodiversity and human rights of their underwriting services.
  - Create a grievance mechanism for the financial sector, to offer (Chinese and foreign) impacted communities a channel to find access to remedy.
  - Apply strong fines and sanctions to hold issuers and underwriting banks accountable for living up to the requirements on biodiversity and human rights.

- **EU regulations for investors**
  - Develop the EU Taxonomy further by also classifying harmful economic activities, adding technical screening criteria for more sectors. Complement with a Social Taxonomy which covers human rights issues.
  - Require investors to be transparent about the companies they actually invest in and how the impacts of these companies on society and the environment are assessed.
  - Introduce clear labelling requirements for investment funds by the European Securities Markets Authority (ESMA) which do include biodiversity criteria.
  - Develop an ambitious timeline to phase out all investment funds whose investments are not aligned with the EU Taxonomy, allowing only the funds defined in Article 9 of the Sustainable Finance Disclosures Regulation on the market.
  - Amend the Corporate Sustainability Reporting Directive (CSRD) to require companies and financial institutions to develop biodiversity transition plans in line with GBF targets and further detail European Sustainability Reporting Standards (ESRS) criteria for different economic sectors.
  - Following the European Regulation on Deforestation-Free Products (EUDR) review, expand due diligence obligations related to forest-risk commodities to the financial sector.
  - Expand the scope of the Corporate Sustainability Due Diligence Directive (CSDDD), applying the due diligence requirements also to the financing and lending activities of financial institutions.
  - Apply strong fines and sanctions to hold investors accountable for meeting the requirements on biodiversity and human rights.

- **United States regulations for investors**
  - Adopt the Global Biodiversity Framework, thereby committing to integrate biodiversity and its multiple values into policies and regulations.
  - Require security issuers to report on biodiversity and human rights risks and their risk-management strategies from a double materiality perspective.

- Abolish the disclosure exemptions for private placements.
- Develop a national Sustainable Finance Taxonomy which contains a list of unsustainable activities and Technical Screening Criteria (TSC) for all biodiversity-risk sectors.
- Develop a regulatory framework for green bonds, including disclosure requirements and standardisation of green activities with the Sustainable Finance Taxonomy.
- Mandate fund managers who label their funds with sustainability-related terms to align their investments with the national Sustainable Finance Taxonomy or with internationally recognised sustainability standards.
- Develop and launch sustainability due diligence requirements for major companies, including financial institutions, similar to the EU Corporate Sustainability Due Diligence Directive.
- Pass the Fostering Overseas Rule of law and Environmentally Sound Trade (FOREST) Act and include financial institutions in its scope.
- Apply strong fines and sanctions to hold investors accountable for living up to the requirements on biodiversity and human rights.

General recommendations on aligning with the GBF targets

Below is a compiled set of recommendations relevant for all countries on how they should update their National Biodiversity Strategy and Action Plans (NBSAPs) to strengthen financial-sector regulations to support central banks, financial regulators and supervisors to include biodiversity and human rights criteria as core to their mandate. The recommendations – grouped according to the type of regulation – are based both on the conclusions emerging from the analyses of existing regulations in the five jurisdictions dealt with in this report and on a literature review across a range of reports and policy briefs.

- **Risk management and financial stability**: Financial institutions should be required to integrate biodiversity and human rights risks and impacts into their risk management processes at the corporate group level of their clients. They must develop transition plans with specific targets and hold board members accountable for risk management. Regulators should mandate higher capital reserves for high-risk activities. System-wide stress tests should also include biodiversity considerations.

- **Financial market functioning**: Regulations should mandate regular disclosure of investment and loan portfolios, including exposure to biodiversity risks and impacts, with verifiable proof required for biodiversity-related claims. Financial products should be labelled based on their genuine sustainability impacts, and investment funds with harmful biodiversity impacts should be phased out.

- **Monetary policy**: Central banks should prioritize bonds from issuers making concrete and verifiable positive contributions to biodiversity and human rights in any quantitative easing programs and collateral frameworks. They should assess and address the contribution of their own investment portfolios to biodiversity and human rights impacts. They should also offer reduced interest rates to financial institutions investing in genuinely sustainable and socially just activities.

- **Money laundering and financial crime**: Biodiversity risks should be incorporated into due diligence and Know Your Customer processes. The financing of companies should be prohibited if they and their suppliers are not able to demonstrate clear adherence to all legal requirements in the areas where they operate. Financial institutions should be held accountable for crimes connected to the corporate groups that they finance, including those impacting biodiversity and human rights, and should be liable for remedy.

- **Corporate disclosure**: Annual public reporting on biodiversity and human rights risks and impacts should be required for companies under the common control of all medium and large corporations. This should include detailed, verifiable data on biodiversity and human rights

impacts, including geolocation data of its operations. All companies should be required to publish annual profit and loss statements and provide details on their funding sources and (legality of) their assets.

- **Stimulating sustainable activities**: Expand taxonomies to include biodiversity, social and human rights criteria and include categories for inherently harmful sectors. Financial institutions should be required to align their portfolios accordingly. Create robust, transparent and verifiable criteria for finance that incentivises community-led sustainable land use and restoration.
- **Human rights and environmental protection**: Develop due diligence obligations for the financial sector to prevent the financing of embedded deforestation, forest degradation and human rights violations. Establish independent grievance and accountability mechanisms for affected communities and third parties to bring complaints against financial institutions.
- **Strengthening institutions**: Financial regulators to develop in-house expertise on biodiversity and human rights and establish inclusive stakeholder platforms to consult with Indigenous Peoples, civil society and other experts. Outcome-focused financial regulations that align with the objectives of the GBF and shift the economy away from harmful activities must be supported by a robust sanctions regime. These should include stringent penalties for non-compliance and mandatory obligations to fund mitigation and remedy efforts for affected communities and ecosystems.

Abbreviations

Abbreviation	Full name of concept or organisation
AML	Anti-Money Laundering
ASEAN	Association of Southeast Asian Nations
ATB	ASEAN Taxonomy Board
BCB	Banco Central do Brasil
BFP	Biodiversity Finance Plan
BI	Bank Indonesia
BNDES	Brazilian Development Bank
CBD	Convention on Biological Diversity
CDP	Carbon Disclosure Project
CITES	Convention on International Trade in Endangered Species of Wild Fauna and Flora
CMN	National Monetary Council of Brazil
COP16	16th Conference of the Parties in Cali, Colombia
CSDDD	Corporate Sustainability Due Diligence Directive
CSRD	Corporate Sustainability Reporting Directive
CVM	Securities and Exchange Commission of Brazil
DNSH	Do no significant harm
EBA	European Banking Authority
EFRAG	European Financial Reporting Advisory Group
EIOPA	European Insurance and Occupational Pensions Authority
ESFS	European System of Financial Supervision
ESMA	European Securities Market Authority
ESRB	European Systemic Risk Board
ESRS	European Sustainability Reporting Standards
EU	European Union
EUDR	EU Deforestation Regulation
F&F	Forests & Finance
FOLU	Forestry and Other Land Use (Sector)
FOREST Act	Fostering Overseas Rule of law and Environmentally Sound Trade Act
GBF	Kunming-Montreal Global Biodiversity Framework
GSRAC Report	Social, Environmental, and Climate Risks and Opportunities Report
HCV	High Conservation Value
ICAAP	Internal Capital Adequacy Assessment Process
ICMA	International Capital Markets Association
IDX	Indonesian Stock Exchange
IPBES	Intergovernmental Science-policy Platform on Biodiversity and Ecosystem Services
ISPO	Indonesia Sustainable Palm Oil
KYC	Know Your Customer

Abbreviation	Full name of concept or organisation
LMA	Loan Market Association
NBSAP	National Biodiversity Strategy and Action Plan
NFRD	Non-Financial Reporting Directive
NGFS	Network for Greening the Financial System
OECD	Organisation for Economic Co-operation and Development
OJK	Financial Service Authority of Indonesia
PSRAC	Policy of Social, Environmental, and Climate Responsibility
RAN	Rainforest Action Network
RSPO	Roundtable on Sustainable Palm Oil
SEC	Securities and Exchange Commission
SFDR	Sustainable Finance Disclosures Regulation
SMG	Sinar Mas Group
SUSREG	Sustainable Financial Regulations and Central Bank Activities Tracker
TCFD	Task Force on Climate-Related Financial Disclosures
TKBI	Indonesian Sustainable Finance Taxonomy
TSC	Technical Screening Criteria
UNDP	United Nations Development Programme
UNGPs	UN Guiding Principles on Business and Human Rights
WWF	World Wide Fund for Nature

Introduction

Forests & Finance (F&F) is an initiative by a coalition of campaign and research organisations which aims to end tropical deforestation, encourage the respect for human rights and support thriving economies that benefit people and planet. The coalition includes Rainforest Action Network, TuK Indonesia, Profundo, Amazon Watch, Repórter Brasil, BankTrack, Sahabat Alam Malaysia, Milieudefensie, CED Cameroun and Friends of the Earth US.

Collectively, F&F seeks to prevent financial institutions from facilitating environmental and social abuses common in forest-risk commodities: beef, palm oil, pulp & paper, rubber, soy and timber. By financing producers, traders and processors in the value chains of these commodities, financial institutions are facilitating biodiversity destruction and violation of the human rights of indigenous peoples and local communities. F&F seeks to hold the financial sector to account on these abuses and change their practices, through improved financial sector transparency, policies, systems and regulations. This report explores what role financial regulations should play in this respect.

As Forests & Finance is focusing on deforestation in tropical forest regions, our work does not cover all types of biodiversity loss worldwide. But tropical forest regions are important biodiversity hotspots and the objectives of F&F are very much aligned with the Kunming Montreal Global Biodiversity Framework (GBF) adopted in December 2022 by the parties of the Convention on Biological Diversity (CBD). The GBF sets out an ambitious pathway to reach the global vision of a world living in harmony with nature by 2050. Among the GBF's key elements are four goals for 2050 and 23 targets for 2030. In this respect, especially the following two targets are relevant:

- *Target 14 – Integrate Biodiversity in Decision-Making at Every Level: Ensure the full integration of biodiversity and its multiple values into policies, regulations, planning and development processes, poverty eradication strategies, strategic environmental assessments, environmental impact assessments and, as appropriate, national accounting, within and across all levels of government and across all sectors, in particular those with significant impacts on biodiversity, progressively aligning all relevant public and private activities, fiscal and financial flows with the goals and targets of this framework.*
- *Target 15 – Businesses Assess, Disclose and Reduce Biodiversity-Related Risks and Negative Impacts: Take legal, administrative or policy measures to encourage and enable business, and in particular to ensure that large and transnational companies and financial institutions:*
    - *Regularly monitor, assess, and transparently disclose their risks, dependencies and impacts on biodiversity, including with requirements for all large as well as transnational companies and financial institutions along their operations, supply and value chains and portfolios;*
    - *Provide information needed to consumers to promote sustainable consumption patterns;*
    - *Report on compliance with access and benefit-sharing regulations and measures, as applicable;*

  in order to progressively reduce negative impacts on biodiversity, increase positive impacts, reduce biodiversity-related risks to business and financial institutions, and promote actions to ensure sustainable patterns of production.

Countries also agreed to review and update their National Biodiversity Strategy and Action Plans (NBSAPs) and to develop, update and implement national Biodiversity Finance Plans (BFPs). The NBSAPs serve as the basic policy framework for the implementation of the CBD at the national level and BFPs aim to close the biodiversity financing gap and support efforts to achieve the NBSAP targets.

The 16th Conference of the Parties (COP16) of the CBD, to be held in Cali (Colombia) from 21 October to 1 November 2024, will be the first CBD COP after the adoption of the GBF. In preparation for this meeting, F&F is publishing this report with concrete suggestions on how financial regulations in key jurisdictions can play an important role in realising the objectives formulated in Targets 14 and 15 of the GBF. These suggestions could be integrated in the NBSAPs

and BFPs of the different countries. The report is meant for governments, financial regulators, CSOs campaigning on finance and financial regulation, and journalists.

Forests & Finance maintains a database which monitors the financing and investment amounts flowing towards the 300 most important producers and traders of the six commodities which are responsible for most tropical deforestation: beef, palm oil, pulp & paper, rubber, soy and timber. Based on an analysis of the F&F financing database, Chapter 1 clarifies which are the five most important jurisdictions from which these financing and investment flows are originating. And within each of these, it analyses which types of financial institution play the most important roles in the financing of, and investment in, the six forest-risk commodities on which F&F is focusing: beef, palm oil, pulp & paper, rubber, soy and timber. This analysis guides the selection of jurisdictions and types of financial regulation covered in Chapters 3 to 7.

The report uses a broad definition of financial regulations, beyond what is normally defined as financial regulation or supervision. This definition encompasses all types of government laws, regulations and guidelines which have impact on how financial institutions operate, especially when it comes to the finance of, and investment in, companies in the real economy. The relevant types of regulations are further described in Chapter 2.

Based on the analysis in Chapter 1, the most relevant forms of financial regulations in the five selected jurisdictions are analysed in Chapters 3 to 7 to identify opportunities to limit the financing of biodiversity loss in tropical forest regions. Each chapter also contains a case study illustrating how different financial flows can lead to loss of biodiversity.

Finally, Chapter 8 summarises the possible improvements to existing regulations in the five different jurisdictions and formulates recommendations for financial regulators and legislators on how to align financial regulations more broadly with the GBF.

A summary of the findings of this report can be found on pages 1-8 of this report.

1

Key jurisdictions and forms of financing of forest-risk commodities

Forests & Finance maintains a database which monitors the financing and investment amounts flowing towards the 300 most important producers and traders of the six commodities which are responsible for most tropical deforestation: beef, palm oil, pulp & paper, rubber, soy and timber. Based on an analysis of the F&F financing data, this chapter clarifies which are the five most important jurisdictions from which these financing and investment flows are originating. Within each of these jurisdictions, the types of financial institution are identified which play the most important roles in financing of, and investment in, the six forest-risk commodities. This analysis guides the selection of jurisdictions and types of financial regulation covered in Chapters 3 to 7.

1.1 The Forests & Finance database

The Forests & Finance database provides data on financing and investment flows going towards the 300 most important producers and traders of the six commodities which are responsible for most tropical deforestation: beef, palm oil, pulp & paper, rubber, soy and timber. These flows were identified using commercial financing databases, company reports and other company publications, filings in company registers, media reports and analyst reports. The BNDES Transparency portal and Brazil's Central Bank portal were used to identify additional financial flows to forest-risk companies in Brazil.

The database contains information on corporate loans and underwriting facilities provided to the selected companies in the period 2013–24 (June). It also contains data on investment in bonds and shares of the selected companies as of June . Of the more than 300 researched companies producing or trading the selected six commodities, we found detailed financial flow data for 230 companies whereby the financier, financing amount, and start date were known within the period of study.

Categories of financial flow

Financial institutions can provide finance to companies through various financial flows, which the F&F database groups in two broad categories:

Credit

- Corporate loans, including project finance, revolving credit facilities, trade finance and loans for general corporate purposes or working capital; and
- Underwriting of share and bond issuances.

Investment

- Managing or owning shareholdings; and
- Managing or owning investment in bonds

Many of the 230 companies for which the F&F database identifies financing flows are active in more than one of the six commodities and/or have other business activities. Therefore, we applied

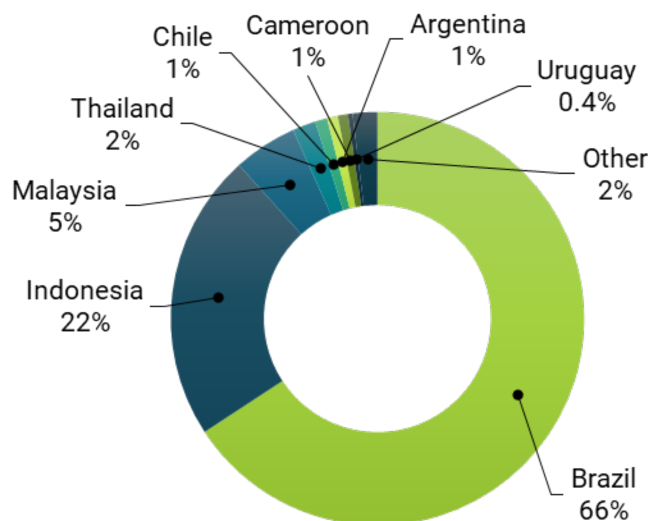
adjusters to all financing and investment amounts that we identified, to present more accurately the proportion of financing or investment that can be attributed to the different forest-risk sector operations of the selected companies. Where available financial information did not specify the purpose of financing, such adjusters were based on the proportion(s) of the company's forest-risk sector activities relative to its total activities. Further adjusters were calculated for companies operating in multiple geographies within the scope of this research.

All financing and investment amounts mentioned in this chapter are therefore adjusted amounts: we do not mention the total value of the loans given to the companies, or the total value of the investment made in the companies' shares and bonds, but we mention only the values which we can attribute to producing and trading the six forest-risk commodities in tropical forest regions.

1.2 Forest-risk credit per country

From January 2016 to June 2024 we found loans and underwriting services with an forest-risk-adjusted value of USD 395 billion to the selected 300 companies producing and trading the six forest-risk commodities. Figure 1 shows that 66% (USD 260 billion) of this credit was attributable to company activities in Brazil and a further fifth (USD 89 billion) was attributable to activities in Indonesia.

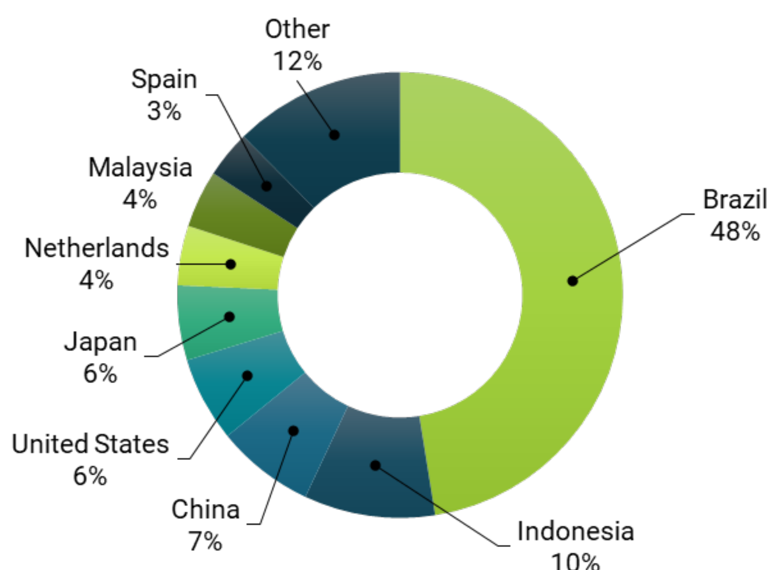
Figure 1 Forest-risk credit per forest-risk country (2016–June 2024)



Source: Forests & Finance

Figure 2 presents a breakdown of the same volume of loans and underwriting services for the period 2016–June 2024 by the country of origin of the banks providing this credit. It shows that 48% (USD 188 billion) of all identified forest-risk credit was provided by Brazilian banks. Indonesian banks provided 10% (USD 38 billion) of the forest-risk credit captured by Forests & Finance, and Chinese banks provided 7% (USD 28 billion).

Figure 2 Forest-risk credit per country of financier (2016–June 2024)



Source: Forests & Finance

While Figure 2 indicates the relative importance of Brazilian and Indonesian banks, the relative importance of Brazilian and Indonesian banking regulations is even higher. This is because a significant share of the loans and underwriting services provided by foreign banks to Brazilian and Indonesian producers and traders of forest-risk commodities are actually provided by local subsidiaries of these foreign banks. These local bank subsidiaries are governed by the banking regulations of the countries where they are incorporated, namely Brazil and Indonesia.

A total of 57% of all forest-risk credit we identified for the period 2016–24 went to forest-risk commodity production and trading in Brazil, of which 48% was originating from Brazilian banks and 9% from local Brazilian subsidiaries of foreign banks. In the same period 15% of all forest-risk credit went to forest-risk commodity production in trading in Indonesia, of which 10% was originating from Indonesian banks and 5% from local Indonesian subsidiaries of foreign banks. This means that banking regulations in Brazil and Indonesia together have an impact on 72% of all forest-risk credit we identified for the period 2016–24. Section 1.3 therefore provides more details on forest-risk credit in Brazil and Indonesia.

1.3 Forest-risk credit in Brazil and Indonesia

Since local and foreign banks operating in Brazil and Indonesia provided 72% of all forest-risk credit we identified for the period 2016–24, this section further breaks down this forest-risk credit by type. Table 3 shows that in Brazil corporate loans and revolving credit facilities accounted for 88% of forest-risk credit, with underwriting service accounting for the remaining 12%. In Indonesia the proportion of corporate loans and revolving credit facilities was slightly lower, though still significant at 77% of forest-risk credit by banks active in this country. Underwriting services accounted for the remaining 23%.

Table 3 Forest-risk credit by banks in Brazil and Indonesia by type (2016–June 2024, USD mln)

Forest-risk country	Type of finance		Value (USD millions)	Proportion of finance
Brazil	Loans	Corporate loan	208,911	92%
		Revolving credit facility	8,314	4%
	Loans Total		*217,224*	*96%*
	Underwriting	Bond issuance	8,489	4%

Forest-risk country	Type of finance		Value (USD millions)	Proportion of finance
		Share issuance	937	0%
	Underwriting Total		*9,426*	*4%*
Brazil Total			**226,650**	
Indonesia	Loans	Corporate loan	33,438	57%
		Revolving credit facility	16,927	29%
	Loans Total		*50,366*	*86%*
	Underwriting	Bond issuance	7,896	13%
		Share issuance	604	1%
	Underwriting Total		*8,501*	*14%*
Indonesia Total			**58,866**	

Source: Forests & Finance

Given the findings presented in the previous sections, financial regulations which are relevant for the banking sectors in Brazil and Indonesia could have a significant impact on reaching the GBF targets in tropical forest regions. Chapter 3 therefore explores options to allow financial regulations in Indonesia which are relevant for the banking sector to align better with the GBF targets, while Chapter 4 does the same for financial regulations in Brazil.

1.4 Investment products in Brazil

In recent years, the Brazilian government has created several tax-exempt investment products through which private investors can invest in the agriculture sector. These investment products have gained significant popularity in the Brazilian financial market, experiencing a 500% increase from 2018 to 2023.[1] Due to a lack in transparency, F&F is not able to map all the outstanding investment, but government data shows that a number of Brazilian investment instruments for the agricultural sector had an outstanding value of USD 187 billion in July 2024.[2]

Chapter 4 therefore also explores options to allow Brazilian regulations for such investment products to align better with the GBF targets.

1.5 Forest-risk bond issuances in China

After Brazilian and Indonesian banks, Chinese banks form the third largest group of forest-risk creditors identified by our database (see Figure 2). This section takes a closer look at the types of forest-risk credit provided by Chinese banks. Table 4 shows that issuance underwriting services account for 64% of the forest-risk credit services provided by Chinese banks to producers and traders of forest-risk commodities, and 64% of the deals they were involved in. Among the issuance underwriting services, bond issuances were the most important type of financial service.

Table 4 Forest-risk credit by Chinese financial institutions (2016–June 2024, USD mln)

Type of finance		Value (USD millions)	Proportion of finance	No. of deals	Proportion of total
Loans	Corporate loan	7,767	28%	213	22%
	Revolving credit facility	2,420	9%	146	15%
Loans Total		*10,187*	*36%*	*359*	36%
Underwriting	Bond issuance	17,168	61%	616	62%
	Share issuance	823	3%	13	1%
Underwriting Total		*17,991*	*64%*	*629*	*64%*
Total		**28,178**	**100%**	**988**	**100%**

Source: Forests & Finance

Given the important role of Chinese banks (Figure 2) and the findings shown in Table 4, the Chinese regulations which are relevant for companies issuing bonds and the financial institutions which provide underwriting services to them deserve further attention. Therefore, chapter 5 explores options to let such Chinese regulations align better with the GBF targets.

1.6 Forest-risk investment per region

As of June 2024, institutional investors across the world held USD 41 billion in forest-risk attributable bonds and shares issued by the 300 producers and traders of forest-risk commodities covered by the Forests & Finance database. Table 5 shows that 39% of these investment were in the hands of financial institutions based in North America (USD 16 billion), and 29% in the hands of investors from Southeast Asia (USD 12 billion). However, institutional investors from North America and the EU had the most diverse portfolios of forest-risk investment. North American institutional investors invested in shares and bonds of 153 producers and traders of forest-risk commodities, while their EU peers invested in 117. Among the North American investors, US investors accounted for 95% of all forest-risk investments.

Table 5 Forest-risk investment by region (2024 June, USD mln)

Region investor	Value (USD million)	Proportion of total	No. of companies invested in	Proportion of all companies invested in
North America	16,143	39%	153	81%
Europe other	3,965	10%	121	64%
EU27	3,255	8%	117	62%
East Asia	2,580	6%	101	54%
Southeast Asia	11,772	29%	88	47%
Oceania	330	1%	75	40%
Central America	278	1%	65	35%
Sub-Saharan Africa	34	0%	39	21%
South America	2,788	7%	27	14%
South Asia	7	0%	21	11%
Middle East	83	0%	9	5%
Total	**41,235**	**100%**	**188**	**100%**

Source: *Forests & Finance*

Given the findings presented in Table 5, financial regulations relevant for investors in the United States and the European Union could have strong potential to align forest-risk investment with the GBF targets. Chapter 6 explores options to let financial regulations relevant for investors in the European Union align better with the GBF targets, while Chapter 7 does the same for financial regulations relevant for investors in the United States.

2

Types of financial regulation

This report uses a broad definition of financial regulations, beyond what is normally defined as financial regulation or supervision. This definition encompasses all types of government laws, regulations and guidelines which have impact on how financial institutions operate, especially when it comes to financing of, and investing in, companies in the real economy. To clarify which types of regulation are considered, this chapter offers an overview of the key objectives of the different types of law, regulations and guidelines which are assessed in chapters 3 to 6 in the five different jurisdictions.

2.1 Regulations on risk management and financial stability

Apart from market conduct (see section 2.2), financial regulators focus on risk management by financial institutions and the stability of the financial system. In the jargon of financial regulators, they distinguish between micro-prudential supervision (focusing on the risk management and stability of individual financial institutions) and macro-prudential supervision (focusing on the stability of the financial system as a whole, which is composed of many intertwined and mutually dependent financial institutions). Regulations in this category include:

- **Regulations on risk management and disclosure**: These regulations prescribe which systems financial institutions should have in place to categorise and manage the different risks they are facing by the financing of, and investment in, many different companies from various economic sectors in different countries and working with different currencies. To evaluate if financial institutions manage their risks in a proper way, regulators can perform so-called "stress tests". To strengthen public confidence in how banks operate and deal with risks, they also have to disclose their risk-management system in their annual reports, on top of what is required from all companies in this respect (see section 2.5).
- For banks, these risk-management regulations are quite similar across the world as all jurisdictions base them on the different Basel Capital Accords and the guidelines of the Basel Committee on Banking Supervision (BCBS).[3] Based on the work of the Network for Greening the Financial System (NGFS), the BCBS has recently started to fit climate and biodiversity risks into its recommendations on risk management by banks. This is now influencing risk-management regulations by financial supervisors across the world.
- **Capital requirement regulations**: The regulations on capital requirement complement those on risk management. When a financial institution lends money, it is required to hold a sum of money equivalent to a percentage of the loan in reserve (as its own capital). How high this capital requirement is depends on the risk level of the loan. Less risky lending may require a lower percentage to be held, or higher risk activities may require more. Having sufficient reserves makes banks more resilient against financial crises by ensuring that banks have enough money on hand to cover contingencies if a larger portion of their clients default on their loans or if a larger portion of bank customers wish to empty their accounts.

  The higher proportion of a loan the bank needs to hold in reserve, the less money it has to invest in profit-making activities such as lending. To compensate for this, a bank will typically raise the costs of loans to higher-risk companies, for which it needs to maintain higher reserves. Some regulations now seek to encourage more lending to sustainable activities, by

lowering the percentage of a loan that must be held in reserve for a sustainable loan, or vice versa by raising the capital requirement for loans to environmentally harmful activities. These requirements would change the cost of loans (the interest rates) for different types of companies. But within the mandate of a central bank or another financial regulator, such regulations are often only possible if there is hard evidence that the financial risk is lower for sustainable activities or higher for harmful activities.

2.2 Regulations ensuring the proper functioning of financial markets

As well as financial stability (see section 2.1), financial regulators focus on the proper functioning of financial markets. This means that they want to ensure that relevant information is shared equally and in a timely manner between all participants in the markets, including companies attracting loans and issuing bonds and shares, institutional investors, private investors, banks and various other kinds of financial institutions. As private investors and consumers of financial services have less access to financial information and in general have a weaker position in the market, various regulations therefore aim explicitly to protect consumers in the financial market. Regulations in this category include:

- **Regulations on consumer information on financial services**: These regulations ensure that consumers – including private investors – can trust that a financial institution's descriptions of its products and practices are accurate and do warn sufficiently about the risks linked to some financial services.
- **Regulations on categorising and labelling investment funds**: These regulations are intended to avoid greenwashing and at the same time raise funds for the transition to a more sustainable economy, by categorising funds by the share of investment in companies contributing to a sustainable transition. This categorisation will be complemented with labelling requirements as (private) investors should be able to trust that investment funds which are labelled as "sustainable" do indeed invest in companies which are contributing to a sustainable transition. These regulations can be linked to a Sustainable Finance Taxonomy (see section 2.6) to define how companies and their activities can be categorised.
- **Regulations on portfolio information**: Fund managers in most jurisdictions are legally required to disclose publicly a list of their investee companies per fund, on a quarterly or annual basis. This allows private investors to know what companies their funds are invested in. Usually, this requirement to publish which companies are included in a portfolio does not apply to institutional investors, including pension funds and insurance companies, which actually are also investing the savings of consumers.

2.3 Monetary policy

Monetary policy in most countries is the responsibility of the central bank, which in some countries is also responsible for the supervision of the financial sector – while there are also countries where financial supervision is the responsibility of a separate authority. By managing the supply of money, monetary policy has the goal to create a stable economic environment with limited inflation in which the economy can flourish. Regulations in this category include:

- **Regulations on collaterals**: To be able to lend money to companies, it is attractive for banks to lend money continuously from the central bank at a relatively low interest rate. To limit the risks for the central bank, banks are required to give the central bank a part of the outstanding loans as collateral. Central banks already set requirements regarding the risk levels and other quality aspects of these collaterals. Sustainability requirements could be included in these regulations, for instance by aligning with a Sustainable Finance Taxonomy (see section 2.6).
- **Quantitative easing programmes**: In many countries in the world, the central bank regularly buys shares and corporate bonds from financial institutions. In this way, these financial institutions convert some of their illiquid assets into cash, which they then can use again to

lend money to companies. Especially when an economy is (feared to be going) into recession, this so-called "quantitative easing" is a well-known strategy to get the economy running again. It provides billions of fresh money to financial institutions, which they can use to lend to companies against lower interest rates.

Not all companies benefit in the same way. Recent research by the European Central Bank suggests that companies with high climate emissions see their interest rates drop more than greener companies when the central bank follows an expansionary monetary policy by making more money available to financial institutions. Conversely, companies with low emissions benefit relatively more from a restrictive monetary policy.[4]

To counter this impact and to contribute actively to the climate transition, central banks are now considering only accepting shares and bonds issued by companies meeting certain sustainability requirements, for instance defined in a Sustainable Finance Taxonomy (see section 2.6), to be acquired through their quantitative easing programmes.

- **Central bank investment policies**: The reserves of central banks are not only invested in gold, but also in shares and corporate bonds. Increasingly, central banks are introducing sustainability criteria into their own investment policies.

2.4 Regulations on money laundering and financial crime

Regulations on money laundering and financial crime aim to address the role that financial institutions and other intermediaries can play in helping individuals and organisations to benefit from the proceeds of crimes. These regulations are fairly similar throughout the world, as they are all based on the recommendations of the Financial Action Task Force (FATF). The FATF has 40 member countries and is supported by all major international bodies. Their recommendations are focused on preventing the proceeds of crimes being spent, or invested, in assets in the legal economy.[5] There is less attention for the financing of companies which might use this funding for committing crimes. Regulations in this category can include:

- **Regulations on money laundering**: These regulations set requirements for the checks which financial institutions have to do to ensure that they are not handling or transferring the proceeds of crime, which could be "laundered" by being deposited on a legitimate bank account or by being invested in legal assets.
- **Know Your Customer (KYC) regulations**: These regulations require financial institutions and other intermediaries to perform adequate checks on who their clients are and to understand the sources of the wealth which they deposit in a bank account or want to see transferred.
- **Beneficial Ownership registers**: As recommended by the Financial Action Task Force, many countries are obliging all companies to register their Ultimate Beneficial Owner (UBO) in a public register, as a tool to improve KYC procedures and to avoid indirect funding of companies or individuals involved in illegal activities or included on sanctions lists.[6]
- **Regulations restricting offering of certain financial products**: These regulations may explicitly require that certain types of financial product, such as credit subsidised by government, cannot be provided to individuals or companies that have faced penalties for infractions of certain laws.

2.5 Regulations on corporate disclosure

Regulations on corporate disclosure are partially driven by the objective of ensuring the proper functioning of financial markets (see section 2.2), but they have a broader objective as well: ensuring the proper functioning of the real economy. These regulations apply to all companies, including financial institutions, to make sure that the government, customers, shareholders and business partners are well informed about the (financial) condition of the company and the risks it is facing.

This type of regulation is relevant for financial institutions in two ways. First, financial institutions are companies themselves and also have to follow these regulations. Second, corporate disclosure regulations help financial institutions to collect the data necessary for their due diligence processes on (potential) corporate clients and investee companies, also potentially in relation to biodiversity and human rights' risks and impacts.

Regulations in this category include:

- **Financial reporting regulations**: All jurisdictions require companies to submit key details about the company to the Company Register and to produce an annual financial report which is available to the public. For listed companies quarterly reports are often required as well. The requirements on what needs to be reported may differ greatly between jurisdictions and within jurisdictions between smaller and larger companies (although smaller companies might be subsidiaries of larger conglomerates). A balance sheet is often required, but a profit and loss statement is not always necessary. And the level of detail required for the balance sheet, for instance on which plantations are included on the assets side and what bank loans from which banks are included on the liabilities side, can differ a lot. Some jurisdictions require companies at least to list their principal banker(s). This can make it easier for communities to track which financial institutions have financing links to companies undertaking harmful activities in their local area.
- **Regulations on disclosure of financial risks**: In their financial reports, larger companies (and especially listed companies) usually have to identify and describe the risks that could seriously affect the company's financial health in the future. This helps to promote trust in the market and avoids sudden shifts of capital if investors dramatically reassess their risks. Following the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) and other international bodies, some regulations make explicit that the analysis of financial risks should include financial risks that arise from specific issues like climate change or biodiversity loss, and require additional supplementary information. Requirements may be more extensive for listed companies.
- **Regulations requiring double materiality disclosure**: Similar to the regulations on financial risk disclosure described above, these regulations require companies to report on environmental and (possibly also) human rights issues which might affect the company's business, when these risks are financially material for the company. But on top of this risk assessment, these regulations also require an analysis of how the company, directly or indirectly through its subsidiaries and its supply chain, has impact on the environment and/or human rights – irrespective of whether this is a financial risk to the company. This "double materiality" analysis is based on a more holistic approach to financial stability and reporting. It recognises that biodiversity loss or climate change are systemic threats to the economy, making all impacts potentially a financial risk to the economy – even if not financially risky to an individual company. It also addresses data quality issues as two companies with exactly the same environmental impact may have very different views on if this impact is financially material or not. If impact reporting based on a double materiality viewpoint is required, both companies should disclose their impact.

2.6 Regulations stimulating the financing of sustainable activities

Confronted with the devastating impacts of climate change and the exhaustion of natural resources, many countries across the world are realising that more sustainable practices need to be fostered and financed. To give guidance to all stakeholders involved, including companies in the real economy and financial institutions, various types of regulations and guidelines are emerging in different countries to stimulate different forms of financing for activities which are categorised as (more) sustainable. Regulations in this category include:

- **Sustainable Finance Taxonomies**: A Sustainable Finance Taxonomy defines the real world activities that can be considered as contributing to a sustainable economy, with the explicit

goal of attracting more financing for such activities. Sometimes, the taxonomy also defines activities for financing which should be avoided, and additionally has an in-between category of activities which are not very unsustainable but which also do not contribute to a sustainable transition. Usually, taxonomies will start with defining high-level, sector-agnostic principles which activities should meet. In later updates these principles are then gradually further defined per economic sector in so-called technical screening criteria for the activities taking place in these sectors.

It is important to note that taxonomies do not define what banks and other financial institutions should do or not do. They are intended more to support other types of regulation, for instance by defining which activities could be eligible for government subsidies, for inclusion in green bonds (see below) or for inclusion in sustainable investment funds (see section 2.2). Sometimes taxonomies require financial institutions to report on how far they follow the recommendations of the taxonomy in their financing decisions.

- **Regulations on green bonds**: Green bonds are used as an instrument to raise funding for activities which are seen as (relatively) sustainable. To avoid greenwashing and create a transparent market for green bonds, green bonds regulations set rules for bond issuers (public bodies, companies and financial institutions) which want to issue green bonds to reap reputational benefits and benefit from slightly lower interest rates. These rules, inter alia, determine which activities are eligible to be funded by the proceeds of green bonds. Increasingly, these regulations are linked to Sustainable Finance Taxonomies to define what activities are eligible for financing.
- **Regulations on sustainable finance plans**: These regulations demand that financial institutions develop a plan on how they will contribute to financing the transition to a sustainable economy. Such plans can define certain financial products, markets and client groups which the financial institution wants to target. Increasingly, these regulations are linked to sustainable finance taxonomies to define what real-world activities should benefit from these sustainable finance plans.

2.7 Regulations protecting human rights and/or the environment

This broad category of laws and regulations has as its primary objective the protection of human rights and the environment. They are often inspired by the UN Guiding Principles on Business and Human Rights (UNGPs), a set of guidelines for states and companies to prevent, address and remedy human rights abuses committed in business operations. The guidelines, adopted in 2012, rest on three pillars:[7]

- **Protect**: the state duty to protect human rights;
- **Respect**: the corporate responsibility to respect human rights; and
- **Remedy**: allow access to remedy for victims of business-related abuses.

Regulations in this category may include corporate, criminal or civil law requirements. They are focused mostly on companies in the real economy, although the UNGPs clearly indicate that financial institutions should not be excluded. Regulations in this category include:

- **Regulations on human rights and environmental due diligence**: These regulations articulate a set of steps or approaches that a company should take to identify human rights or environmental risks in their own operations and in their (international) supply chains. The regulations will define steps required to avoid or mitigate harms and may include a requirement to provide remedy to affected communities or peoples. They often include a reporting obligation as well.

  Some of these regulations exclude financial institutions, such as the European CSDDD. A different example is the French Duty of Vigilance Law that requires large multinational corporations operating in France, including financial institutions, to establish a plan covering all their international activities that “includes reasonable due diligence measures to identify risks

and prevent serious violations of human rights and fundamental freedoms, the health and safety of people and the environment, resulting from the activities of the company and those of the companies it controls". The law also allows communities to seek remedy for harms.[8]

- **Human rights and environmental duty to prevent regulations**: These regulations articulate that companies can be held responsible for their role in extremely serious human rights violations, and in some cases extreme environmental issues. This can include severe civil or criminal penalties. For example, the French Duty of Vigilance law also includes a duty to prevent component.
- **Regulations on the import of products linked to deforestation**: These regulations aim to limit the import of products which caused or contributed to (illegal) forest degradation or deforestation, for example via commodities grown on forested land cleared after a certain date. Financial institutions might be included in the scope of such regulations, by requiring them to undertake due diligence checks on companies involved in forest-risk supply chains. This would prevent the situation in which a country may prevent the import of products linked to illegal deforestation, while banks from the same country provide financing to the companies producing and trading these products.

3

Banking regulations in Indonesia

The F&F financial flows data show that 15% of the global credit for forest-risk commodity companies is coming from both Indonesian banks and Indonesian subsidiaries of international banks, which all fall under Indonesian banking regulations. Improving banking regulations in Indonesia would, therefore, be a key priority to align the financial sector with the GBF targets. This chapter looks at how biodiversity issues are currently integrated into the country's financial supervision and central banking and lays the foundations for the subsequent recommendations on how the relevant regulations can be made more robust.

3.1 Overview of the regulatory landscape for banks in Indonesia

In Indonesia, central banking and financial sector supervision are separated. Monetary policy, including corporate asset purchase programmes, the collateral framework and foreign exchange regulations are the responsibility of Bank Indonesia (BI), the country's central bank. The task to regulate and develop the banking sector and capital markets rests with the Financial Services Authority (Otoritas Jasa Keuangan, or OJK), while fiscal policies and frameworks are regulated by the Ministry of Finance (Kementerian Keuangan). All these regulators have taken some steps to integrate ESG-criteria into the way they act in their respective areas of responsibility.

As part of the Association of Southeast Asian Nations (ASEAN), Indonesia also takes part in formulating the regional-level policy landscape, including the ASEAN Taxonomy,[9] an overarching classification system for sustainable activities, and may benefit from its application.

Over recent years, Indonesian regulations and supervisory expectations in the area of sustainable finance have been rapidly evolving, including the adoption of the P2SK Law in 2023,[10] which aims to embed sustainable finance principles in Indonesia's financial regulatory framework and mandates financial institutions to integrate ESG considerations into their operations and decision-making processes. The law also encourages the development and promotion of green financial products, such as green bonds and loans.

At the same time, most of the regulations currently in place are primarily focused on climate change. Though biodiversity is now also being gradually included in some regulations (for example, on reporting), the scope remains very limited, and there is little on-the-ground impact from these regulations.

3.2 Regulations by Bank Indonesia

Bank Indonesia (BI) is responsible for the country's monetary policy and for developing macroprudential policy. BI also provides technical assistance, training and capacity building to increase awareness about sustainable and green finance for commercial banks. As part of the Network for Greening the Financial System (NGFS), it cooperates with other central banks to learn about and potentially adopt best practices from other countries and jurisdictions. Relevant regulatory steps taken by BI are discussed in the following sub-sections.

3.2.1 Reduced reserve requirements for environmental credit

In 2023, BI for the first time took environmental and social considerations into account in determining reserve requirements for banks. In September 2023 the Regulation Concerning Implementation Regulations for Macroprudential Liquidity Incentive Policy (PADG KLM) was adopted, which grants reduced reserve requirements to banks which offer environmentally friendly credit. The Macroprudential Liquidity Incentive Policy (KLM) is provided in the form of a reduction in the bank's current account at Bank Indonesia as fulfilment of the minimum reserve requirement (GWM) that must be met on average.[11]

Lower reserve requirements mean that banks have more liquidity for financing the eligible sectors of the real economy and that the interest rates for such loans are reduced. The eligible green credit and financing should be intended for specific activities: property credit or property financing for environmentally friendly properties and motor vehicle loans or motor vehicle financing for environmentally friendly motor vehicles.[12]

Green financing for other types of activity, including biodiversity conservation, are not included. Environmental and social considerations are also not part of the reserve requirements for the financing of other activities, which is an issue not specific to Indonesia but rather a policy gap that needs to be addressed in many other countries and jurisdictions globally.

PADG KLM also provides incentives for a number of outwardly or potentially environmentally harmful industries, such as the mineral and coal sectors and tourism, without setting any ESG requirements for these sectors.

3.2.2 Central bank reserves portfolio

BI is integrating ESG aspects in managing its own reserves portfolio. According to OMFIF, a UK-based independent think tank, "ESG assets are part of Bank Indonesia's reserves portfolio, along with other impact-labelled bonds such as green bonds and sustainability-linked bonds. In line with [its] commitment to engage in impact investing, these bonds have a growing share of total exposure *in the reserves portfolio*."[13] However, BI does not yet publicly disclose the share of its own portfolio that is aligned with ESG criteria, for instance as defined by the ASEAN and Indonesian Taxonomies.[14]

3.2.3 Corporate asset purchase programme and collateral framework

BI does not currently take ESG considerations into account when implementing corporate asset purchase programmes or in its collateral framework. In addition, BI has not communicated a phase-out plan on assets linked to the most environmentally harmful activities in its corporate asset purchase programme.[15] This is, however, generally a new ground for all central banks, so BI will need to adjust the relevant policies, together with the central banks in other jurisdictions.

3.3 Regulations by the Financial Services Authority

The Financial Services Authority (Otoritas Jasa Keuangan, or OJK) already in 2015 developed and published the country's Sustainable Finance Roadmap for the period 2015–19, which outlines the strategic vision for developing sustainable finance.[16] Subsequently, OJK has issued circular letters and implementation guidelines on many aspects of sustainable finance, from green bonds to financing the palm-oil industry. In addition, OJK has developed and is regularly updating the Indonesian Sustainable Finance Taxonomy. These regulations will be discussed in the following sub-sections.

OJK has not yet integrated any ESG considerations into the rules-based micro-prudential regulations for banks in Indonesia. Thus, banks are currently not expected to integrate ESG considerations in their Internal Capital Adequacy Assessment Process (ICAAP). Minimum capital requirements or capital add-ons for banks also do not incorporate ESG considerations through a differentiated risk-based approach. Commercial banks are not expected to integrate ESG

considerations into their liquidity risk-management process. Liquidity ratios are not adjusted to take ESG considerations into account, through a differentiated risk-based approach.[17]

3.3.1 Sustainable Finance Roadmap Phase II (2021–5)

The Phase II Sustainable Finance Roadmap (2021–5) was designed as guidance for the financial sector and as a reference point for the regulators and other relevant stakeholders in shaping sustainable finance in Indonesia. It is building upon the Sustainable Finance Roadmap Phase I (2015–19), which was the initial step in a broader strategy to imbed sustainable finance principles in Indonesia's banking and investment sectors and focused on raising awareness, developing green financial products, building capacity and implementing pilot projects.

The roadmap is aimed at creating an ecosystem encompassing seven key elements: policy, product, market infrastructure, coordination among ministries/institutions, non-government support, human resources and awareness.[18]

The document outlines several activities planned for by the end of 2025, including developing supporting Infrastructure, creating research centres, providing training, creating a monitoring and evaluation mechanism for the implementation of sustainable finance and developing new products. However, the roadmap lacks specific measurable time-bound commitments and details on what the planned activities should look like.

The roadmap also contains a list of activities that are considered sustainable for the purposes of sustainable finance, broadly in line with the Indonesian Taxonomy, including renewable energy, energy efficiency, pollution prevention and control, sustainable transport, water and wastewater management, climate change adaptation, eco-efficient projects, green buildings, Micro-, Small- and Medium-sized Enterprises, sustainable nature resources and land use, terrestrial and aquatic biodiversity conservation and other environmentally friendly business activities (this last category is not clearly defined).

3.3.2 Implementation of Sustainable Finance Regulation

OJK Regulation (POJK) Number 51/POJK.03/2017 concerning the Implementation of Sustainable Finance for Financial Services Institutions, Issuers and Public Companies was issued by OJK in 2017 to help the Indonesian economy and, in particular, its banks and the capital markets, to implement sustainable finance and thereby to foster the country's sustainable and equitable economic development. The idea behind the regulation was to help channel capital flows to the more environmentally sustainable and socially beneficial activities as defined in the roadmap (see section 3.3.1) and to prevent them from going into controversial or unsustainable activities and projects.

The document applies to financial services institutions (banks, capital market institutions, insurance companies, pension funds), issuers (defined as companies planning an IPO) and public companies (defined as companies whose shares are owned by at least 300 shareholders and have a paid-up capital of at least Rp 3 billion, or several shareholders and paid-up capital as stipulated by a government regulation).[19]

Entities in the scope of the regulation are required to develop annually a Sustainable Finance Action Plan, which must be prepared by the Board of Directors, approved by the Board of Commissioners and submitted to OJK. The action plan must be provided together with an implementation timeline. They are also required to publish sustainability reports, either as part of annual reports or as standalone documents.

A Sustainable Finance Action Plan needs to include the following aspects:

- Development of Sustainable Financial products and/or services, including an increase in financing, investment or portfolio placements in financial instruments or projects that are in line with Sustainable Finance implementation, as outlined in the Technical Guidelines for implementing Sustainable Finance (see section 3.3.3);

- Internal capacity development of the Financial Services Institution (LJK); and
- Adjustments on organisational, risk management, governance, and/or LJK standard operating procedure standards that are in line with the principles of Sustainable Finance implementation.[20]

Under the regulation, financial services institutions that are required to implement corporate social and environmental responsibility (CSER) activities must allocate a portion of their CSER funds to support activities related to the implementation of Sustainable Finance.[21] Currently, the requirement does not apply to all financial institutions but only to those that have a significant impact on the natural resources industries, are state-owned, or are specifically requested to implement CSER by the government. Entities that are on track to implement the requirements stipulated in the regulation, are entitled to receive incentives (for example, involving Financial Institutions, Issuers and Public Companies in human resource competency development programmes or the conferring of the Sustainable Finance Awards). Those who fail to comply will face written reprimands from the regulator.

The regulation is a framework document: the Technical Guidelines discussed in section 3.3.3 provide more details on its implementation.

3.3.3 Technical Guidelines for implementing Sustainable Finance

In 2020 OJK published Technical Guidelines for Banks on the Implementation of OJK Regulation POJK Number 51/POJK.03/ 2017, which offers comprehensive guidelines on how banks and other financial institutions can put into practice the requirements of the Implementation of Sustainable Finance Regulation discussed in section 3.3.2. It provides templates and examples of how to compose a Sustainable Finance Action Plan and monitor its implementation. Among the key performance indicators a financial institution could monitor, the Technical Guidelines propose:

- The amount and quality of the bank's financing for sustainable business activities, compared with the amount and quality of the bank's total financing;
- The amount and quality of financing per sustainable business activity category;
- The amount and quality of the bank's productive assets used for sustainable business activities, compared with the amount and quality of the bank's total productive assets; and/or
- The type of Sustainable Finance products and/or services that will be launched.[22]

It also contains a list of criteria for determining sustainable and unsustainable business activities, explaining which activities are deemed unsustainable:

- Any activity involving all forms of forced labour, exploitation of children under the age of 16;
- Commercial logging operations in tropical wet forests;
- Production and trade of timber or other forestry products from forests that are not managed sustainably;
- Production or activities that take over land ownership from indigenous peoples without the community/population's consent;
- Production or trade of illegal products or activities pursuant to Indonesian regulations or international conventions/agreements including on ozone-layer depleting substances, wildlife or products regulated under CITES.

These exclusions are also included in the Do No Significant Harm Criteria of the Indonesian Sustainable Finance Taxonomy (see section 3.4.2).

3.3.4 Guidelines on climate-risk stress testing

In 2023, OJK published guidelines for banks' climate-risk stress testing, and required banks to participate in its Climate Task Force to carry out the stress-testing exercise.[23] From 2026 this will become obligatory for all Indonesian banks. According to the University of Indonesia, "[these]

stress tests [will be] used to assess the resilience of individual banks and of the banking sector as a whole against risks from climate change, in addition to more typical economic shocks”.[24]

3.3.5 Circular Letter on sustainability disclosures

OJK Circular Letter No. 16/2021 Regarding the Form and Substance of the Annual Report of Issuers (Emiten) and Public Companies outlines the format and scope of sustainability disclosures by issuers and listed companies, including listed financial institutions. Their sustainability reports must at least contain information about the company’s sustainability strategy and the rationale behind it, and an overview of its sustainability performance covering economic, environmental and social aspects. They should at least contain information on energy use, emissions reduction, waste and effluents reduction, and biodiversity conservation. In terms of biodiversity, the reporting must focus on two key aspects:

- impacts on conservation areas near or around a company’s assets or production facilities, and
- its biodiversity conservation efforts.[25]

The covered entities must therefore report on their positive and negative impacts on the biodiversity on their sites and surrounding areas, especially on efforts to increase the carrying capacity of the ecosystem. As the requirement applies to own sites, banks only report on the direct impacts of their buildings and other facilities, which are negligible or non-existent.

The Circular Letter also provides examples of biodiversity impacts and efforts to minimise the negative ones and enhance positive change. It lists replanting degraded areas, in particular with endemic flora, planting fruit trees as part of agroforestry efforts both to preserve forests and empower local communities, and so on. For new developments, it gives an example of a company that has conducted an AMDAL (Environmental Impact Assessment) and engaged in the KL-UPL (Efforts for Environmental Management and Monitoring) before opening a new mine. As an example of a post-closure clean up, it features a mining company that collaborates with a biodiversity research centre to restore the former mining area and surrounding landscape (measured by the number of hectares restored and trees replanted) and to contribute to making the site an eco-tourism destination.[26]

In addition to mitigating the negative impacts, the Circular Letter encourages companies to engage actively in conservation efforts and to support relevant projects, such as protecting keystone species and entire ecosystems like orang-utans or coral reefs.

Besides the biodiversity impacts and efforts, companies in the scope of this regulation are required to report on the material environmental and the social risks associated with their operations. It is important, however, to make a distinction between reporting on ESG risks that are financially material (as required by the regulation) and other ESG risks (which may or may not be financially material, and therefore may or may not be disclosed). Issuers and public companies must also follow the principle of prudence while measuring and reporting on ESG risks.[27]

3.3.6 Palm Oil Plantation Credit and Financing Guidelines

The Palm Oil Plantation Credit and Financing Guidelines issued by OJK in 2019 were developed in collaboration with a number of NGOs, including WWF. This document outlines guidelines for financing the palm-oil industry.[28]

According to the Palm Oil Guidelines, banks should encourage their customers to apply for sustainable palm-oil certification following the ISPO scheme mandated by the government and other voluntary certifications such as RSPO. It suggests that banks can assess the risk profile of (potential) customers, for example, by looking at the target time the company has set to be certified by one of these schemes and how many plantation units the company has certified. It views sustainability certification schemes as an easy indicator for banks to ensure that a company has complied with sustainability standards. However, different actors have varying opinions on

certification schemes, with many peasants, fisher folk and NGOs criticising them over the quality and robustness of their requirements.

Banks should evaluate whether customers have internal or publicly available policies with which to respond to ESG issues. Based on their experience and policies, banks are also expected to develop exclusion lists. Overall, a comprehensive approach to client evaluation is recommended, including an assessment of any controversies (and steps taken to rectify them) using publicly available information from the media and online information platforms.[29]

The guidelines also encourage banks to use the High Conservation Value (HCV) approach while determining the biodiversity-related risks of a particular client or specific project site, depending on its location, proximity to protected or biodiversity-reach areas and on-site biodiversity values.[30]

3.3.7 P2SK Law (Financial Sector Omnibus Law) on developing and strengthening the financial sector

At the end of the 2022 session of the House of Representatives, the House passed Law No. 4 of 2023 on Financial Sector Development and Strengthening (P2SK Law) which revised 16 laws in the financial sector. The regulation of sustainable finance under the law means that there is an increase in the legal status of sustainable finance, from previously only being in the form of OJK regulations. This opens up opportunities to apply sustainable finance in investment. It stipulates the implementation of sustainable finance in three ways: integrating environmental, social and governance aspects in business practices and investment strategies; developing products, transactions and services for financing sustainable activities and transition financing; and capacity building. However, this law does not explicitly require the implementation of sustainable finance which the OJK regulations do.[31]

The P2SK Law establishes a Sustainable Finance Committee, consisting of the Ministry of Finance as the coordinator, the Financial Services Authority and Bank Indonesia, to support the development of sustainable finance. The membership of this committee only represents regulators for the financial sector: the environment and natural resources sectors are not involved in the committee. P2SK also lacks norms on human rights and the environment, it does not require transparency and accountability and it does not regulate a complaints mechanism.[32]

3.4 Other relevant regulations

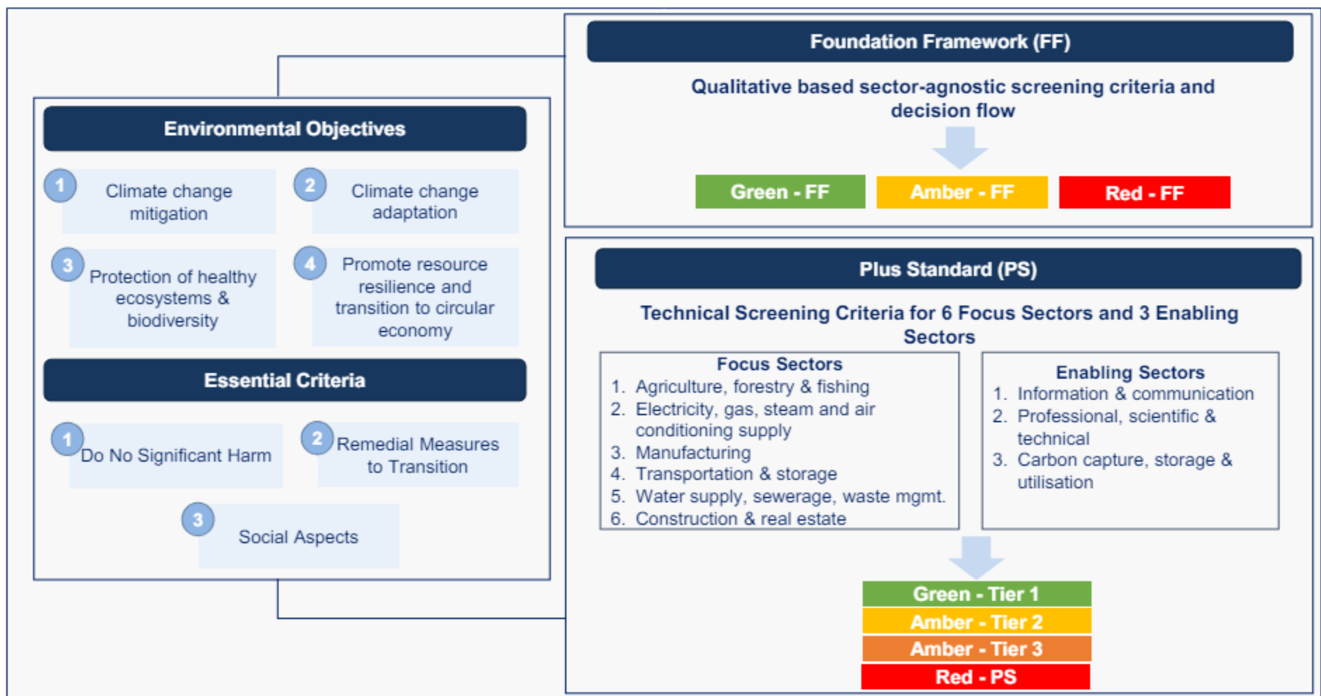
3.4.1 ASEAN Taxonomy

The ASEAN Taxonomy is developed by the Association of Southeast Asian Nations (ASEAN) to stimulate the sustainable development of the ASEAN economies. It is a flexible and adaptable tool which is regularly updated to reflect both the market expectations and the technological advancements in the relevant sectors. It has already seen two revision cycles and Version 3, which was released on 24 March, 2024, is currently open for stakeholder consultations. Version 2 (released in 2023 and effective as of February 2024) elaborated the technical screening criteria for the electricity, gas, steam and air conditioning supply (energy) sector, while the latest edition also introduces technical screening criteria for two more focus sectors: transportation and storage, and construction and real estate.[33] It is expected that as a part of this phased approach the next version will include technical screening criteria for forestry, fishing, agriculture, waste management and manufacturing.[34]

The ASEAN Taxonomy is divided into two parts: the foundation framework, designed for companies or governments beginning their sustainability journey, and the stricter plus standard, intended for those aiming to demonstrate their ability to meet more rigorous environmental criteria. Both parts employ a traffic light system, categorising activities as Green, Amber or Red based on their environmental impact.[35] Technical Screening Criteria (TSC) for different economic sectors classify the activities undertaken in these sectors, based on their contributions to environmental objectives (EOs) using quantitative, qualitative or nature of activity-based criteria.

To qualify as Green or Amber, an activity or project must either lead to a positive benefit to one or several environmental objectives (EOs) or create some form of utility whilst displacing another provider of that utility which detracts from one or more environmental objectives. Red activities are those that are not currently aligned with the ASEAN Taxonomy.[36]

Figure 3 Structure of the ASEAN Taxonomy



Source: ASEAN Taxonomy Board (2024, March), ASEAN Taxonomy Version 3, p. 23

The ASEAN Taxonomy currently envisages four environmental objectives:

1. Climate change adaptation;
2. Climate change mitigation;
3. Protection of healthy ecosystems and biodiversity; and
4. Resource resilience and the transition to a circular economy.

According to the ASEAN Taxonomy Document, "Protection of healthy ecosystems and biodiversity" focuses on the incorporation of conservation, restoration, and protection mechanisms of the natural ecosystem and biodiversity. This is location and context specific, and typically relevant for activities related to agriculture, forestry and fishing, real estate, and industry".[37] The taxonomy further stipulates that any activity or project intended to promote the biodiversity environmental objective shall conform with a number of principles while at the same time minimising or eliminating any direct or indirect adverse effects on the natural ecosystems and biodiversity. The principles related to Environmental Objective 3 (Biodiversity) are summarised in Table 6.

Table 6 EO3 (Biodiversity) Criteria in the ASEAN Taxonomy

Number	Criterion
1.	Enable ecosystem restoration and/or facilitate the protection of ecosystems.
2.	Implement necessary measures to protect ecosystems and biodiversity, including but not limited to actions such as the adoption of sustainable logging practices and ensuring timber products are sourced from sustainably managed forests.

Number	Criterion
3.	Enforce and empower existing policies related to the protection of natural areas.
4.	Take into consideration the sustainable and equitable use of biodiversity and ecosystem services.
5.	Substantially contribute to environmental protection from pollution by improving levels of air, water and/or land quality, including the cleaning up of litter and other pollution.
6.	Substantially contribute to achieving good environmental status of bodies of water, through protection, preservation or restoration mechanisms; including improving water management and efficiency activities, as well as promoting the sustainable use of water through the long-term protection of available water resources.

Source: ASEAN Taxonomy Version 3, p. 28.

As there are no TSC for EO3 (Biodiversity) yet, it remains unclear what these principles mean exactly for the classification of economic activities which might create risks for biodiversity in Green, Amber and Red.

3.4.2 Indonesian Taxonomy

The first version of the Indonesian Taxonomy was launched in 2022. In February 2024 the Indonesian Financial Services Authority (OJK) published an updated version of the Indonesian Sustainable Finance Taxonomy (TKBI). According to OJK, "TKBI is a classification of economic activities that support Indonesia's efforts and Sustainable Development Goals covering economic, environmental, and social aspects, and acts as a guide to improve capital allocation and sustainable financing in supporting the achievement of Indonesia's net zero emission target in 2060 or earlier."[38] The taxonomy is focusing on five sectors which are expected to have the most tangible contribution to dedicated climate change adaptation and mitigation: the energy, waste management, agriculture, industrial processes and product use (IPPU), and Forestry and Other Land Use (FOLU) sectors.

Like the ASEAN Taxonomy, the TKBI covers four environmental objectives: climate change mitigation, climate change adaptation, protection of healthy ecosystems and biodiversity, and resource resilience and the transition to a circular economy. The biodiversity objective (EO3) is the most relevant for the topic of this report. Currently, EO3 focuses on the "incorporation of conservation, restoration, and protection mechanisms of the natural ecosystem and biodiversity. EO3 is location and context specific, typically relevant for Activities related to the agriculture, forestry and fisheries, real estate and manufacturing sectors. EO3 aims to promote positive impacts and minimise or eliminate negative impacts of an Activity on natural ecosystems and biodiversity."[39] However, there are currently no biodiversity-related technical screening criteria, which makes it difficult for companies to apply the Indonesian Taxonomy to their activities and projects with potential positive impacts on landscapes and biodiversity.

The TKBI follows the ASEAN Taxonomy in its two-fold approach containing both technical screening criteria (currently available for the energy sector and mining) and the principles-based approach (the sector-agnostic decision tree). However, this two-fold scheme is applied in a different way: TSC must be applied by large companies, while the sector-agnostic decision tree is reserved for Micro-, Small-, and Medium-sized Enterprises (MSMEs).

Under TKBI, an activity may qualify as green, transition or unqualified (if it i listed in the TKBI but does not meet the "Green" and "Transition" classification requirements), an approach also similar to the ASEAN green-amber-red classification system.

As part of the Do No Significant Harm (DNSH) criteria, the Taxonomy puts forward a number of requirements for the preservation of biodiversity. These include:

- Ensure that Environmental Impact Assessment approval is obtained;
- Identify and manage environmentally detrimental risks associated with biodiversity;

- Develop all relevant management plans, such as biodiversity management plans, in consultation with stakeholders and ensure implementation for potentially impacted areas, particularly water bodies. The management plan should demonstrate a genuine commitment to minimising environmental impacts through appropriate water management throughout the activity life cycle;
- Monitor compliance with and effectiveness of mitigation measures established as project commitments.

In addition, it provides a list of examples of protected areas and areas with high biodiversity conservation value which need to be taken into account. The list includes nature reserves, Ramsar sites, World Heritage Sites, areas protected by indigenous peoples and local communities including community conservation areas, and other area types.

3.4.3 Green bonds: OJK Regulation 60 /POJK.04/2017 and 18/POJK.04/2023

The initial OJK Green Bond Regulation outlined the principles and requirements for issuing green bonds, a financial tool aimed to finance or refinance underlying green projects. According to the regulation, "considering that Green Bond is a new product in the Indonesian capital market, the formulation of this Financial Services Authority Regulation refers to the standard issuance of Green Bond issued by the International Capital Market Association (ICMA)". That is, it followed the key ICMA principles, including the use of proceeds requirements, and establishes similar eligible categories of sustainable activities, including renewable energy and energy efficiency, pollution prevention and control, climate change adaptation, water, pollution prevention and others. In terms of biodiversity, it covered the management of biological natural resources and sustainable land use, and the conservation of terrestrial and aquatic biodiversity.

In 2023, OJK Regulation Number 60 /POJK.04/2017 was replaced by Regulation 18/POJK.04/2023, which is considerably broader in scope, and apart from the green bonds/sukuk, also covers social bonds/sukuk, sustainability bonds/sukuk, sustainability-linked bonds/sukuk, and sukuk linked to waqf (Islamic endowments). It is, therefore, an important piece of legislation concerning Islamic banking.[40]

Already one of the top-ten Islamic banking markets globally,[41] Islamic banking still is a fast-growing segment of Indonesia's financial sector. Besides OJK, there are a number of other organisations and associations bringing together institutions engaged in Islamic finance and standard-setting: the General Council for Islamic Banks and Financial Institutions (CIBAFI), the National Sharia Economy and Finance Committee (KNEKS), the Association of Indonesian BMTs, and the Indonesian Islamic Fintech Association.

The key features of POJK 18/2023 include requirements on registration documents, use of proceeds, external verification, status changes on Green sukuk, Social bonds/sukuk, Sustainability bonds/sukuk, and Sukuk-linked waqf, and reporting. POJK 18/2023 lists biodiversity among the categories for which the proceeds of green bonds can be used. However, it does not contain any specific targets, thresholds, or KPIs, or any examples of projects or activities with potentially beneficial impacts on biodiversity.

According to the Indonesian Centre for Environmental Law (ICEL), this regulation offers an improvement compared to POJK No. 60 of 2017, which relied on "environmental experts in the assessment process, [while POJK 18/2023] relies on external review providers to conduct the assessment".[42] This appears to be a major step forward to increase transparency and trust in sustainable finance instruments, and ultimately to foster their uptake by Indonesian FIs.

3.4.4 ESG regulations and performance of the Indonesian Stock Exchange (IDX)

The Indonesian Stock Exchange is one of the largest and fastest-growing stock exchanges in Southeast Asia, reaching 902 listed companies and planning to go over 1,000 in the near future.[43] IDX is actively trying to integrate environmental and social considerations both in its own performance and in its requirements for, and expectations of, the listed companies. Most of the

major commercial banks are also listed companies, and the requirements put forward by IDX have an impact on their sustainability practices.

Currently, listed companies are required to report on their social and environmental performance, including biodiversity, in line with the OJK Implementation of Sustainable Finance Regulation (section 3.3.2) and the Technical Guidelines for implementation of sustainable finance (section 3.3.3). IDX also issues its own sustainability report following these regulations.

IDX initiated a partnership with the Indonesian Biodiversity Foundation (KEHATI), a body founded in 1994 and tasked with “finding innovative ways to conserve, manage and utilize Indonesia's biodiversity in a sustainable manner”.[44] As part of this partnership, IDX launched several indices related to sustainability management.[45]

3.5 Case: Sinar Mas Group

3.5.1 Description of the case

The Sinar Mas Group (SMG), one of Indonesia’s largest conglomerates founded by a Chinese Indonesian tycoon, Eka Tjipta Widjaja, has a devastating track record of reported abuses in the past decades. These include illegal clearing of peatlands and forests, countless active community and land rights conflicts, and allegations of fraud. While SMG committed to eliminating deforestation and peatland clearance from its supply chain over a decade ago in 2013, the company has systematically breached these commitments.[46]

Through a large web of companies belonging to this corporate group, such as Asia Pulp & Paper (APP, pulp & paper), Golden Agri-Resources (GAR) and PT SMART (both palm oil), the Sinar Mas Group is active in the growing, processing and supply of pulpwood, paper, palm oil and derived products in the food, oleochemical and biofuel sectors. SMG also operates in real estate, financial services, telecommunications, coal mining, energy generation and healthcare.[47] Group financial figures are not published, but in 2022 APP reported net sales of USD 9.36 billion, and GAR a consolidated revenue of USD 11.44 billion.[48]

Many investors and buyers consider SMG to be a high-risk corporate group. This has led to the withdrawal from or suspension of activities by several of its downstream buyers, including Unilever, Nestlé, Mattel, Burger King and Carrefour, over the past years.[49] Also, a whole list of investors have excluded companies belonging to the Sinar Mas Group from investments, including Aegon, Bankinvest, Menzis, Danske Bank and a series of pension funds.[50]

Numerous allegations of deforestation in Indonesia and Liberia are linked to plantation concessions which ultimately are controlled by SMG. Between 2013 and 2022, the area deforested in one of APP’s suppliers’ concessions totalled nearly 75,000 ha, and an additional estimated 3,500 ha of peatland was cleared in Sumatra between 2018 and 2020. According to Mongabay both companies were controlled by APP, which subsequently attempted to obscure these links by registering the companies as owned by some of its employees. This is denied by APP.[51]

Deforestation is also happening in protected areas. For example, GAR has been linked to deforestation of High-Carbon Stock Forests and High-Conservation-Value forests in Liberia by a company which is under its control: Golden Veroleum Liberia (GVL). The forests impacted by GVL are considered critical to mitigating climate change, as they absorb and store huge volumes of carbon dioxide or because of their concentrated biodiversity levels, which need to be protected. GVL has failed to restore the forests, even after it was ordered to do so by the High Carbon Stock Approach in January 2021.[52] In response to these allegations, GAR has stated that both its Forest Conservation Policy (FCP) and the Social and Community Engagement Policy (SCEP) apply to GVL.[53]

Some of APP’s long-term suppliers are located in the Giam Siak Kecil-Bukit Batu Biosphere Reserve, a declared UNESCO peatland area in Riau province on Sumatra. The Indonesian NGO coalition Eyes on the Forest found that between September 2021 and January 2022 forest on deep

peatland (where new plantation development is prohibited) in two concessions had been cleared. This was done despite the fact that one concession lies within the home range of a Sumatran elephant population, which is considered of High Conservation Value.[54]

SMG has also been linked to illegal sourcing. For example, in 2017 a GAR-owned bulking station and a refinery were supplied with palm oil by two mills sourcing illegally grown fruit from the Tesso Nilo National Park in Sumatra. In 2022 GAR also purchased palm oil from mills supplied by two of the ten largest deforesters among Southeast Asian palm-oil companies. Between them, they had cleared almost 5,000 ha between 2020 and mid-2022.[55]

Finally, various companies under the control of SMG have been accused of involvement in many conflicts with local communities, often related to land rights violations, violent displacement of local populations and other abuses, such as spraying the community's food crops with herbicides.[56]

The complex and opaque corporate structure of the Sinar Mas Group contributes to its lack of transparency, making it difficult to hold the company accountable for human rights violations and environmental impacts as described above.[57] In 2014 SMG was accused by the environmental group Walhi Jambi of defrauding the provincial government of USD 15 million by avoiding reforestation taxes on 2,000 hectares in Jambi province. An SMG spokesperson commented that they would wait for the outcomes of the investigation of Jambi's attorney into the matter.[58]

Between 2019 and 2024 (June), the top creditor of SMG was the Indonesian Bank Rakyat Indonesia, which provided the group with over USD 3.8 billion of forest-risk credit. Additionally, Bank Central Asia and Bank Mandiri, both from Indonesia, provided SMG with USD 3.4 billion and USD 3.2 billion worth of forest-risk credit over the same period.[59]

3.5.2 How Indonesian regulations deal with this case

A comparison of the present Indonesian regulations for banks with this case study, leads to the following observations:

- While the business activities of SMG clearly do not align with the principles behind the Sustainable Finance Roadmap, the ASEAN Taxonomy and the Indonesian Taxonomy, our analysis did not identify any regulation that would clearly require banks to deny SMG loans and credit. This is partly because regulations (including the roadmap and taxonomies) lack technical screening criteria for several sectors in which SMG is active, which makes it difficult to classify its activities as unsustainable/red. And even if they could be classified as such, banks are only required to increase their share of sustainable activities in their credit portfolios, not to avoid financing unsustainable activities.
- For one sector in which SMG is active, oil palm plantations, OJK has issued sectoral guidelines. As Golden Agri Resources, the palm-oil holding company within the SMG, is currently a member of the RSPO, it appears unlikely that a financial institution would exclude it from financing, based on the OJK palm-oil guidance. While the percentage of GAR RSPO and ISPO certified palm oil entering its mills is less than 60%, this does not appear to be low compared to other member companies.
- Risk-management regulations do not require Indonesian banks which are financing different companies controlled by the SMG to do due diligence on the entire corporate group. As the corporate structure of the group is unclear, while there are many financial transactions between different companies belonging to the corporate group, it is quite possible that credit provided to one company ends up financing the activities of another company which was not included in the bank's due diligence process.
- Sustainability reporting requirements do not yet require financiers to disclose aggregate statistics on deforestation exposure, let alone more detailed data on the bank's financial exposure to SMG and on the associated impacts on society and the environment. The absence

of these data impedes efforts by affected peoples to call for financiers to contribute to remedy or redress.

3.6 Possible improvements of relevant regulations in Indonesia

3.6.1 Assessment of the present Indonesian regulations

This chapter has described and summarised the financial regulations in Indonesia which could potentially be relevant to align the credit flows of foreign and domestic banks with the targets of the Global Biodiversity Framework (GBF). Table 7 assesses how far these regulations are aligned with three essential GBF targets, based on the methodology described in Appendix 1.

Table 7 Assessment of the present Indonesian regulations against GBF targets

Assessment criteria		Colour score	Justification
1	Financial regulations do not allow financing of companies involved in conversion of natural landscapes.	Dark red	There are currently no regulations which prohibit financing of companies involved in conversion of natural landscapes.
2	Financial regulations expect financial institutions to stimulate a just transition in the Agriculture, Aquaculture, Fisheries and Forestry sectors which supports the rights of workers, peasants, fisher folk, indigenous peoples, traditional and local communities.	Light red	Banks are expected to develop a Sustainable Finance Action Plan, by which they increase the share of sustainable activities in their portfolio. But the definition of these activities is not sector-specific. The OJK has issued guidelines for the financing of palm-oil plantations which encourage banks to use the High Conservation Value (HCV) approach to determine biodiversity-related risks of a particular client or specific project site. Sector-specific guidelines for other biodiversity-risk sectors do not exist. The ASEAN Taxonomy and the Indonesian Taxonomy formulate principles on the incorporation of conservation, restoration and protection mechanisms in business activities, but these are not elaborated yet in technical screening criteria. Both taxonomies include social criteria but only have passing references to protecting the rights of indigenous peoples. No measures are in place to enforce alignment with either taxonomy.
3	Financial regulations require transparency of all financing flows and full disclosure of biodiversity and social impacts of these flows.	Light red	There is no requirement to report which companies a bank is financing or investing in. Financial regulations require listed companies, including banks to report on their direct sustainability impacts, including on biodiversity. Thus, listed companies must report on their positive and negative impacts on the biodiversity on their sites and surrounding areas, but banks are not required to report on the impacts of the companies they finance.

Source: Profundo, various primary sources (national & supranational legislation of Indonesia & ASEAN)

Overall, Indonesia has integrated some ESG aspects into its financial regulations. There are obligatory requirements for companies, including financial institutions, to report on environmental and social issues, regulations to foster sustainable finance, specific requirements for green bonds based on the ICMA principles, and dedicated ESG indices on IDX, the country's major stock exchange.

At the same time, most of the environmental requirements focus on climate change, while other aspects, primarily biodiversity, are either superficially covered or not included at all. Most regulations (including both the Indonesian and ASEAN Taxonomies, Indonesian Sustainable

Finance Roadmap (2021–5) Phase II, and the Green Bond Framework) mention biodiversity as an eligible category or target area, but have thus far failed to introduce specific (technical screening) criteria or time-bound measurable commitments.

The ASEAN Taxonomy is falling short in a number of key aspects. First of all, it is currently not legally binding, and companies and financial institutions are not required to follow it, or to report on the eligibility and alignment of their activities or portfolios. Those who opt to report are expected to do so in a self-declaratory manner, and no third-party verification is required. Secondly, biodiversity-related TSC have not yet been developed for any of the eligible sectors, which makes the application of the more robust plus standard virtually impossible for any projects or activities with a meaningful positive impact on landscapes. Applying the lower principles-based standard to biodiversity-focused activities appears to be controversial, in particular when they are classified as 'amber' under the traffic lights system. The case on oil-palm plantation extension featured in the taxonomy document demonstrates that companies are assessed based on their policies, not actual practices, and that even activities carried out by companies without no-deforestation commitments and with insufficient remedy provisions may still qualify as "amber".

The Indonesian Taxonomy is in many ways similar to the ASEAN Taxonomy, and shares many of its shortcomings, including the most crucial one – its voluntary character. In addition, the taxonomy would benefit from a more robust approach to social issues. Currently, even though it does cover social aspects of sustainability, it does not seem adequately to address a number of topics, including labour rights, gender equality and communities' rights.

Banks are expected to develop a Sustainable Finance Action Plan, by which they increase the share of sustainable activities in their portfolio. But the definition of these activities is not sector-specific and does not mention biodiversity aspects. Even though biodiversity is part of the mandatory sustainability reporting described in OJK's Circular Letter on Sustainability Disclosures, it only requires reporting on two aspects: impacts on biodiversity on or near the sites where a company's activities take place, and the efforts it takes to preserve biodiversity. As can be seen in the reports of the major Indonesian banks, the first aspect is irrelevant as they do not have any business activities in the vicinity of their operations. For the second aspect, banks almost invariably report on how they fund conservation projects. The way the requirements are formulated now, they only cover direct impacts, but fail to include the biodiversity footprint of the value chain relevant for downstream sectors or the biodiversity footprint of the loan and investment portfolios of banks and asset managers.

3.6.2 Recommendations for Indonesian legislators and banking regulators

The following improvements are recommended to better align the financing flows managed by banks in Indonesia with the GBF targets:

- **Update and improve the ASEAN and Indonesian Taxonomies.** Both taxonomies should include lists of eligible activities that contribute positively to landscapes and biodiversity. For example: community based and smallholder agroecology, community and indigenous peoples based forest management and nature restoration, organic agriculture, sustainable infrastructure (including eco-ducts), non-timber forest use and others. Technical screening criteria (TSC) should be developed for all biodiversity-risk sectors. Both taxonomies should also clearly define unsustainable activities, and allow for more detailed classification, beyond the green, yellow and red options.
- **Make a transition plan mandatory for all banks and financial institutions**. Strengthen the expectations for the Sustainable Finance Action Plans which banks and financial institutions are already required to make, by requiring them to develop a transition plan which would ensure that their portfolios align with the taxonomies. It is important that banks are given clear guidance how to include these principles in their mandatory Sustainable Finance Action Plan (see the following recommendations) and that the inclusion and operation of these principles is supported by a robust enforcement practice.

- **Develop sector-specific financing and investment guidelines and binding requirements for high biodiversity-risk sectors.** OJK should strengthen the existing Palm Oil Guidelines and develop and launch guiding and reference documents for all the sectors with substantial risks to biodiversity. These sectors should include timber (including plantation forestry), natural rubber, fishing and aquaculture, industrial agriculture, large-scale infrastructure, tourism and others. The guidelines should stimulate a just transition in the Agriculture, Aquaculture, Fisheries and Forestry sectors which supports the rights of workers, peasants, fisher folk, indigenous peoples, traditional and local communities. This means that the guidelines should align with the taxonomies with regard to activities that contribute positively to biodiversity and human rights, while they should also define which activities should be avoided because of their negative biodiversity and social impacts. The guidelines should be derived from international standards and agreements, including the GBF, and should become mandatory.
- **Require due diligence of the full corporate group.** Funding provided to a specific company is often lent to a subsidiary, parent or sister company within the same corporate group. It is therefore important that the due diligence requirements for banks on social and environmental risks and impacts are broadened from their direct clients to the entire corporate groups they belong to.
- **Require more comprehensive biodiversity monitoring and reporting.** Even though banks and other financial institutions (FIs) are already required to report on biodiversity, the scope of mandatory disclosures (reporting on impacts on conservation areas near or around a company's assets or production facilities, and its biodiversity conservation efforts) remains limited and often irrelevant for the financial sector. Banks and financial institutions must be required to measure and report on their biodiversity-related exposure – through their financing and investment – and on the impacts of these on society and the environment. Banks should also be transparent about which companies they are financing and on the complaints they received regarding the impacts on biodiversity and human rights of their financing.
- **Introduce differentiated reserve requirements.** Aligned with the taxonomies and with its sectoral guidelines, OJK should introduce lower reserve requirements for sustainable finance products, and higher reserve requirements – and even limits – on exposure to companies harmful to biodiversity and human rights.
- **Incorporate biodiversity in Bank Indonesia's monetary policy.** Bank Indonesia should aim to integrate biodiversity and human rights considerations into its monetary policies. This means incorporating biodiversity risk indicators in managing its own portfolio, in its assets purchase programmes and in its collateral framework. BI should also introduce preferential borrowing rates for sustainability-linked loans.
- **Hold financial institutions accountable**. OJK and criminal authorities should act if banks do not meet the requirements in existing regulations and the new regulations proposed above. Fines and sanctions such as capital add-ons, concentration limits, holding board members accountable, or (temporarily) revoking a banking licence should be used.

4

Banking and investment regulations in Brazil

The F&F data shows that 57% of the global credit for forest-risk commodity companies is provided by Brazilian banks, while Brazilian subsidiaries of international banks also provide a significant share. Both groups fall under Brazilian banking regulations. Investment products offered on the local market are a fast-growing additional source of finance for the agricultural sector too. Improving the financial regulations relevant for banks and investment products in Brazil would therefore be a key priority to align the finance sector with the GBF targets. This chapter explores options to achieve this alignment.

4.1 Overview of the regulatory landscape for Brazilian banks and investment products

The relevant authorities for the regulation of the financial system and financial markets are the following:[60]

- **The National Monetary Council (CMN)**: This authority sets the guidelines for monetary, credit and exchange rate policies, and approves the norms related with macroprudential regulation proposed by the BCB. Currently, the CMN is composed of the minister of finance, the minister of planning and budget and the governor of the Central Bank of Brazil. Additionally, this authority sets the policy to be observed in the organisation and functioning of the securities market. Two supervisory authorities are linked to this organisation: the Central Bank of Brazil and the Securities and Exchange Commission (CVM).
- **The Central Bank of Brazil (BCB)**: This is the monetary and banking supervisory authority in Brazil and proposes the regulations for the banking sector. In 2020 the BCB launched the Sustainability Agenda, which contains actions on regulation, supervision, socioenvironmental responsibility of the BCB, partnership and policies. While some actions such as the structuring of information collection of socio-environmental risks and the first phase of the development of stress tests for climate risks have already been met, others are not yet concluded, such as the promotion of a sustainability culture by the Organisational Socio-Environmental Responsibility Committee of the Central Bank of Brazil (CRSO).
- **The Securities and Exchange Commission (CVM)**: This body regulates and supervises the securities market in Brazil.

4.2 Monetary policies

4.2.1 Collateral and asset purchase policies

The BCB is considering including a Sustainable Liquidity Mechanism to apply different haircuts for the collateral classified as ESG in the context of liquidity credit lines of the BCB, once the ESG securities market reaches a sufficient level of depth.[61] It is important to note that no sustainability criteria has been considered in the asset purchase programme of the BCB.[62]

4.2.2 Central bank reserves portfolio

The BCB is integrating sustainability criteria into the management of its reserves portfolio, which had a total value of BRL 4,104 billion (USD 731 billion) at the end of 2022. In two years the BCB

expanded its investment in green bonds from less than USD 200 million to USD 2 billion at the end of 2022. BCB also tracks metrics related to climate risks, related to greenhouse gas emissions, energy profile, and implicit temperature rise, with the aim of improving the performance of its portfolio on these criteria.[63]

4.3 Banking supervision

4.3.1 Assessment of environmental, social and climate risks

Resolution CMN No. 4.943 of 15 September 2021 modifies Resolution No. 4.557, dated 23 February 2017, and incorporates environmental, social and climate risks into the risks that financial institutions should identify, measure, assess, monitor, report, control and mitigate as part of their risk management to avoid potential financial losses for the bank that could arise due to their materialisation. In particular, environmental risks include irregular, illegal or criminal conduct, or activities against fauna or flora, including deforestation, fires in woods or forests, degradation of biomes or biodiversity, criminal pollution of air, water and soil, exploitation of natural resources related to environmental degradation, including water, forest, energy and mineral resources among others. The objective of the risk assessment is to evaluate the potential impacts on the bank's financial position of such conduct or activities by clients of the bank. The resolution does not require the bank to assess, deal with or report on the impacts of the bank's financing on environmental and social issues (double materiality approach).[64]

The resolution demands that a specific unit within the bank is in charge of the risk management of environmental and social (E&S) risks. Banks are not expected to hold capital against E&S risks as part of the capital requirements (Pillar 1). However, financial institutions are expected to integrate E&S and climate considerations in their Internal Capital Adequacy Assessment Process – ICAAP (Chapter IV of Resolution No. 4.557). This bank-specific assessment could result in an allocation of capital to cover losses generated by the materialisation of E&S risks (Pillar 2). Additionally, banks must conduct stress tests that consider assumptions of changes in climate patterns and the transition to a low-carbon economy.[65]

4.3.2 Policy on Social, Environmental, and Climate Responsibility (PSRAC)

Resolution CMN No. 4.945 of 15 September 2021: Financial institutions within the scope of this norm must implement a Policy on Social, Environmental and Climate Responsibility (PSRAC), proportional to their business model, operations and complexity of the institution's products, services and activities, and adequate to their exposure to E&S and climate risks. Each financial institution should develop its own PSRAC, consisting of a set of social, environmental and climate principles to be observed by the institution in conducting its business activities and processes, as well as in its relationship with stakeholders. Deforestation is not explicitly mentioned, but the PSRAC should align with Resolution 4.943, which does mention deforestation as an environmental risk (see section 4.3.1). Financial institutions must also disclose the list of economic sectors subject to restrictions by the financial institution due to environmental, social or climate issues. Furthermore, financial institutions must publish the list of products and services offered by the institution that contribute positively to social, environmental, or climate-related aspects.[66]

4.3.3 Disclosure of Social, Environmental, and Climate Risks and Opportunities (GRSAC Report)

Resolution BCB No. 139 of 15 September 2021 demands the disclosure of Social, Environmental, and Climate Risks and Opportunities in a report: the GRSAC Report. The GRSAC Report must contain information on the responsibilities of the financial institution in the management of social, environmental and climate risk, as well as the real and potential impacts of these risks in business strategies, and in risk management and capital management in the short, medium and long-term under different scenarios and processes for their management. The disclosure requirements follow the recommendations by the Task Force on Climate-Related Financial Disclosures (TCFD) on climate issues, adapting these for social and environmental issues. It is important to note that

the resolution does not require specifically that the financial institution conduct a regular assessment of the impacts of its financing on environmental and social issues.[67]

Recently, the BCB launched a public consultation to improve the norms related to the GRSAC report (Public consultation No. 100/2024). The proposal introduces new disclosure requirements, consisting of quantitative (indicators) and qualitative information related to exposures to companies subject to climate risk. Additionally, the proposal seeks to standardise the disclosure of voluntary commitments and incorporates the disclosure of transition plans associated with the relevant effects of climate risk on the strategy and decision-making of financial institutions.[68]

4.4 Other relevant regulations

4.4.1 Sustainable Finance Taxonomy

Currently, Brazil has not launched a national Sustainable Finance Taxonomy. However, the Ministry of Economy expects to present it in November 2024 at COP29, after which it will become mandatory in January 2026.[69] The objectives of the upcoming taxonomy related to the environment and climate include sustainable land use and conservation, management, and sustainable use of forests to address deforestation and forest degradation.[70] A working group has been set up, comprising different ministries, the Central Bank of Brazil, the Securities and Exchange Commission of Brazil, the Superintendence of Private Insurance and the Brazilian Development Bank.

4.4.2 Rural credit programmes

According to MapBiomas, the agriculture sector was responsible for 95.7% of deforestation in Brazil in 2022.[71] Within this context, rural credit is, according to the BCB, a primary public policy for the long-term sustainability of the agribusiness sector.[72]

The national rural credit policy in Brazil is based on the Brazilian Agricultural Plan (Safra Plan), which forces banks to allocate resources to farmers and other companies in the rural sector. For part of these resources the government provides funds with reduced interest rates to the banks, but the percentage of resources without normal interest rates has been increasing rapidly over the last decade. Compliance with environmental and social requirements and land tenure laws is an integral part of this rural credit policy.

The Safra Plan covers different programmes such as: PRONAMP (medium-sized agrobusiness) and PCA for rural producers (Programa para Construção e Ampliação de Armazéns).[73] One of these programmes, Renovagro, promotes financing for the restoration of protected areas, the recovery of degraded pastures and other investment in sustainable systems and practices that will finance other sustainable agricultural practices. Another programme, Inovagro, supports investment in technological innovation to increase productivity and adopt good agricultural practices.[74]

Recently, the Brazilian government launched the Safra Plan 2024–5, which increases funding for its programmes by 10% compared to the 2023–4 plan. It is relevant to highlight that the resources allocated to Renovagro account for only 7.2% of the investment programme funds, slightly lower than the 7.5% allocated in the 2023–4 Safra Plan.[75] This is despite Renovagro's direct connection to promoting climate change adaptation and reducing carbon emissions in agriculture.[76]

The Manual of Rural Credit gathers together all the norms related to rural credit adopted by the National Monetary Council and published by the BCB, which includes social and environmental restrictions to the provision of rural credit. The most important are:[77]

- CMN Resolution No. 3,876/2010 forbids the granting of rural credit to individuals or businesses who keep workers in slave-like conditions.
- BCB Resolution 5,081/2023 (which replaces and expands some earlier resolutions) prohibits banks from providing rural credit to enterprises without an Environmental Rural Registry (CAR)

or which are totally or partially located inside Conservation Units, Indigenous Lands or Public Forests type B. Rural credit cannot be granted to firms located on rural properties subject to an embargo by a state or federal environmental authorities because of the economic use of areas illegally deforested on the rural property. Such embargoes are registered on the embargo list of the Registry of Environmental Assessments and Embargoes of the Brazilian Institute of the Environment and Renewable Natural Resources.

- CMN Resolution 5,021/2022 established that producers can be eligible for higher credit limits if they comply with a CAR analysed and validated by the corresponding state agency, and are in compliance with the Forest code. Subsequently, CMN Resolutions 5,078/2023 and 5,102/2023 established that, in addition to an increase in working capital credit limits, producers can also obtain discounts on the interest rates paid on working capital operations.
- CMN Resolution 5,149/2024 sets further restrictions on the allocation of rural credit under the Pronamp programme. Among others, it prohibits the allocation of rural credit to non-indigenous peoples for activities within indigenous lands. It also prohibits rural credit for farms that are (partially) located in protected areas, unless the economic activities are aligned with the sustainable management plan of the protected areas.

The Rural Credit and PROAGRO Operations System (SICOR) provides a lot of information on the rural credit being granted, but falls short of mentioning the names of the companies which have received credit.[78]

4.4.3 Regulations on investment products

The Brazilian government has created several investment products through which private investors can invest in the agriculture sector, namely CPRs, CRAs, LCAs, CDCAs and FIAGROs. These investment products have gained significant popularity in the Brazilian financial market, experiencing a 500% increase from 2018 to 2023.[79] The total outstanding value of these investment products was USD 187 billion in July 2024.[80]

The regulations covering the main investment products are described below:

- Law Nº 14.130/21 has made it possible for financial institutions to offer FIAGROs (Investment Funds in Agro-Industrial Production Chains) to private and institutional investors. The money raised by these investment funds is invested in companies active in the agricultural supply chain. FIAGROs are further regulated under Resolution CVM Nº 39 – 2021, which does not include any social or environmental restrictions.[81]
- Agribusiness Receivables Certificates (CRAs): CRAs are a fixed-income instrument to attract funds in the Brazilian capital market to finance agribusiness, regulated by Resolution CVM Nº 60 – 2021. They are issued by securitisation companies after purchasing future receivables from rural producers via credit rights. One advantage of this instrument is that it is exempt from income tax for individuals and from the tax on financial transactions. However, CRAs do not receive protection from the Credit Guarantee Fund (FGC). It should also be noted that no social or environmental restrictions apply, as is the case for the rural credit programmes (see section 4.4.2).

  The green CRAs are fixed-income instruments issued in the same way as CRAs previously described; however, the destination of the funds is for sustainable projects related to agribusiness. They are categorised as green investment if the allocation of funds meets ESG criteria, which are certified by a third party that audits the issuer's activities.[82] In addition, it is possible to grant an issuance of an additional "green" grade through specialised certification from the Climate Bond Standards (CBS).[83] In practice, some firms have issued these instruments with a commitment to zero deforestation. [84]
- Agribusiness Letters of Credit (LCAs): LCAs are issued by financial institutions to raise funds for participants in the agribusiness chain, other than farmers. Similar to CRAs, they are based

on the securitisation of certificates of indebtedness and have the advantage that they are exempt from income tax for individual investors. LCAs are regulated by Resolution CMN Nº 5.006 – 2022. No social or environmental restrictions apply, as is the case for the rural credit programmes (see section 4.4.2).[85]

- Incentives to finance environmental services: there is a proposed law to implement the Green Credit Note (LCV), a fixed-income security aimed at raising funds from individuals and companies to finance projects for the recovery and maintenance of ecosystems and the sustainable development of the country.[86] This instrument includes tax incentives for investors. No social or environmental restrictions apply, as is the case for the rural credit programmes (see section 4.4.2).

4.4.4 CVM Sustainable Finance Action Plan

In October 2023, CVM published its Sustainable Finance Action Plan for the period 2023–4. The action plan includes the following objectives for the Brazilian capital market:[87]

- Enhancement and creation of specific regulations;
- Supervision and addressing greenwashing;
- Guidance for market participants;
- Investor education;
- Training for the employees of the CVM;
- Institutional integrity; and
- Active transparency regarding the sustainable initiatives promoted by the capital market regulator.

The Action Plan encompasses 17 initiatives, which include modifying the regulation on FIAGROs (see section 4.4.3) to promote carbon markets by expanding the range of eligible assets in the FIAGRO portfolio and increasing the availability of sustainable financial instruments. In addition, it seeks to address the requirements for the recognition, measurement and disclosure of decarbonisation credit. As part of the Action Plan, the CVM aims to increase investor awareness regarding the incorporation of ESG factors in their investment decisions, enhance critical thinking and the ability to process ESG information combating greenwashing.

Regarding data collection, the CVM must coordinate the biennial survey that evaluates the progress of sustainable finance in Brazil (last survey: June 2023). The other initiatives are related to promoting sustainable practices internally, publication of statistics and activities or the agenda of the CVM, modification of the norms related to investment funds for recycling projects, among others.[88]

4.4.5 The Brazilian Development Bank (BNDES)

State-owned banks play an important role in implementing government policies in Brazil, including policies related to biodiversity-risk sectors. The Brazilian Development Bank (BNDES) is the main financing agent for development in Brazil. As a lender to, and a minority shareholder in major domestic companies, BNDES has played a fundamental role in stimulating the expansion of industry and infrastructure in the country.[89]

BNDES distributes one-third of the rural credit used for investment in machinery and equipment, mostly through banks owned by machine manufacturers and private commercial banks.[90] BNDES is also a shareholder and major financier and shareholder of JBS (see section 4.5).

BNDES now describes its purpose as: “Transforming the lives of generations of Brazilians by promoting sustainable development”.[91] In the Brazilian government’s Ecological Transformation Plan to tackle climate change, funding through BNDES plays an important role. This will be financed by the issuance of sovereign green bonds.[92]

4.5 Case: JBS

4.5.1 Description of the case

The Brazilian meat company JBS is the world's largest meat processor and among the top-five largest food and beverage companies. JBS's daily slaughter capacity includes 76,150 head of cattle, 132,000 pigs and 13.8 million poultry birds, counting Burger King, Carrefour, KFC, McDonald's, Stop & Shop, Tesco, Walmart and Wendy's among its customers.[93] Animal protein sales account for 91% of its revenues.[94]

JBS has been repeatedly convicted and fined for a wide range of illegal business practices that have been extensively documented over the last 15 years.[95] These practices include bribery and corruption,[96] price-fixing,[97] forest destruction,[98] forced labour and labour abuses,[99] invasion and land grabbing of Indigenous and traditional territories,[100] and excessive greenhouse gas (GHG) emissions.[101]

JBS has been linked to deforestation and sourcing from "embargoed" ranches, where illegal deforestation had taken place.[102] For example, in 2017 Brazilian authorities discovered that two JBS slaughterhouses had bought 49,468 head of cattle from embargoed areas, leading to a fine of almost USD 8 million. In the same year local authorities of the state of Pará found that 19% of all JBS's cattle purchases (more than 118,000 head of cattle) had failed to comply with legally binding no-deforestation agreements.[103] In 2022 it was found that over 90,000 cows purchased by JBS in one year (from July 2019 to June 2020), came from ranches that failed to comply with its legal no-deforestation obligations.[104] The company also failed to monitor 3,270 ranches further up its supply chain which were responsible for an estimated 98,000 hectares of deforestation.[105]

In 2023 a sample taken of the direct and indirect suppliers of JBS's 27 slaughterhouses in seven Brazilian states within the Amazon and the Cerrado, two critical and highly biodiverse biomes, were responsible for 447,913 ha of deforestation between 2009 and 2023.[106] JBS is one of the world's highest-emitting livestock companies due to extensive deforestation and to cattle ranching, which is responsible for major methane emissions.[107] JBS's estimated CO_2 emissions amounted to 288 million tonnes in 2021.[108] JBS has taken on a commitment to zero the balance of its greenhouse gas emissions by 2040.[109]

In August 2023, in the run-up to JBS's planned Initial Public Offering (IPO) in the United States, several NGOs including Rainforest Action Network (RAN) wrote to the SEC to request an investigation into allegations that JBS "does not operate to acceptable business standards, has filed potentially misleading statements and omitted material information for investors".[110] JBS responded that the only solution for deforestation in Brazil is to have a national mandatory traceability system.[111]

JBS has also been accused of contributing to significant air and water pollution from its US-based slaughterhouses and meat-processing facilities. In the US 15,900 deaths per year are attributed to air pollution from food production, with 80% of this caused by livestock, mainly by manure.[112]

Finally, JBS has been accused of sourcing cattle from indigenous territories in the Amazon that have been seized from indigenous peoples, by ranchers and violent landgrabbers. The Parakanã are demanding remedy from the BNDES because it financed JBS, which sourced from their land.[113] According to Global Witness, JBS has also sourced from ranchers accused of using slave labour, such as the Seronni ranches.[114] And Global Witness also alleged that JBS has purchased cattle from Rafael Saldanha, a rancher being investigated for the murder of two activists.[115]

In the Seronni case, JBS stated in response that the rancher acted in bad faith and had deliberately circumvented its monitoring system. Rafael Saldanha has claimed that all allegations of human rights abuses put to him are false and denies being involved in the alleged murders.

Since 2018, the Brazilian-owned bank BTG Pactual provided USD 153 million in forest-risk underwriting services to JBS. Spanish-owned Santander and UK-owned Barclays each provided USD 94 million in forest-risk underwriting services in the same period.[116]

4.5.2 How Brazilian regulations deal with this case

Assessing how the present Brazilian regulations for banks and investment products apply to this case leads to the following observations:

- Brazilian banks and Brazilian subsidiaries of foreign banks with credit relationships with JBS must conduct an identification and assessment of climate, environmental and social risks related to JBS, in line with Resolution CMN No. 4.943 of 15 September 2021. Banks should also consider these risks in their stress tests to identify potential financial losses that could arise from the materialisation of these risks. It is important to note that the regulation does not require banks to assess the environmental and social impacts of their financing activities, specifically when providing services to companies involved in controversial practices.
- Brazilian banks within the scope of Resolution CMN No. 4.945 are required to develop a set of social, environmental and climate principles to be observed by the bank in conducting its business activities (the PSRAC). This implies that banks providing financial services to JBS should consider stringent policies when lending credit to this sector, which could include limiting the credit to companies not meeting certain environmental and social standards. The impacts of providing services to JBS in the banks' business strategies and risk management should be considered in the GSRAC report (Resolution BCB No. 139). But no transparency is required on the exposure to specific companies, nor on the risks and impacts related to specific companies.
- Restrictions on rural credit programmes as described in Manual of Rural Credit could potentially apply when the banks lend directly to some of the suppliers of JBS. But these restrictions do not apply to the loans that banks provided to JBS itself.

4.6 Possible improvements of relevant regulations in Brazil

4.6.1 Assessment of the present Brazilian regulations

This chapter has described and summarised the financial regulations in Brazil which could potentially be relevant to aligning the financing flows managed by banks and investment products with the targets of the Global Biodiversity Framework (GBF). Table 8 assesses how far these regulations aligned with three essential GBF targets, based on the methodology described in Appendix 1.

Table 8 Assessment of the present Brazilian regulations against GBF targets

Assessment criteria		Colour score	Justification
1	Financial regulations do not allow financing of, or investing in, companies involved in conversion of natural landscapes.	Light red	Brazil has imposed restrictions regarding the provision of government-controlled rural credit by financial institutions to companies violating laws related to the conversion of natural landscapes. However, these restrictions do not cover all forms of conversion of natural landscapes and they do not apply to normal bank credit or to investment products such as CRA or FIAGRO.
2	Financial regulations expect financial institutions to stimulate a just transition in the Agriculture, Aquaculture, Fisheries and Forestry sectors which supports the rights of workers, peasants, fisher folk, indigenous peoples, traditional and local communities.	Light red	Financial regulations in Brazil require certain financial institutions to elaborate a policy on social, environmental, and climate responsibility, which includes setting social principles that these institutions should observe during their activities. Furthermore, there are norms in the Manual of Rural Credit that prohibit financial institutions from the provision of credit to enterprises located in indigenous lands. However, there are no specific norms that require financial institutions to stimulate a just transition in these sectors, which supports the rights of

Assessment criteria		Colour score	Justification
			workers, peasants, fisher folk, indigenous peoples, traditional and local communities.
3	Financial regulations require transparency of all financing and investment flows and full disclosure of biodiversity and social impacts of these flows.	Light red	Financial regulations require financial institutions to elaborate the GRSAC report, which must contain information on the responsibilities of the financial institution in the management of social, environmental and climate risks. But transparency on financing flows is not required and the impacts on society and the environment do not have to be assessed. Also, for investment products that provide funds to the agricultural sectors, there are no norms that require transparency or an evaluation of the impacts of the investment on biodiversity.

4.6.2 Recommendations for Brazilian legislators and financial sector regulators

Below are the most pressing recommendations regulations in Brazil which could potentially help to align the financing flows managed by banks and investment products with the targets of the Global Biodiversity Framework (GBF):

- **Strengthen restrictions on (rural) credit**: When assessing (rural) credit, financial institutions should be required to consider the records of their clients, directly and in their supply chains, on deforestation and violations of human rights. The existing restrictions on providing rural credit could be strengthened by only granting rural credit if the client:

    - Can prove legitimate ownership of the land, without overlap with protected areas;
    - Has obtained all required environmental licences;
    - Has not been deforesting on the property;
    - Has not been involved in human rights violations; and
    - Can provide traceability of their products.

    These restrictions should also apply to normal bank credit, to agricultural producers as well as to downstream companies.

- **Introduce environmental and human rights restrictions for investment products**: It is recommended that the Brazilian government develops a clear framework for the issuance of investment products as CRAs, LCAs and FIAGROs. Financial institutions issuing the credit on which these investment products are built should use stringent eligibility criteria for the beneficiaries of these products, similar to the restrictions set in the Manual of Rural Credit and the criteria mentioned in the previous bullet.[117] Issuers must also manage the funds transparently, reporting on which agricultural enterprises and rural properties are financed and what the impacts of this financing are on biodiversity and human rights. Such reporting should be verified by independent third parties.

- **Develop a Sustainable Finance Taxonomy**: It is recommended that the Brazilian Sustainable Finance Taxonomy – which is planned to be launched in November 2024 – will include a list of activities that contribute to the proper use of land and the conservation of biodiversity. Preferably, the taxonomy should give sectoral guidance for sectors with high biodiversity risks and should define which activities should be avoided. If the taxonomy then is linked to different types of financial regulation, this could improve the regulations covering banking supervision, rural credit programmes and tax-exempt investment products. It would make clear to financial institutions, banks and investors how they can contribute to biodiversity protection and which activities they should avoid to not become involved in deforestation and the violation of the rights of workers, peasants, fisher folk, indigenous peoples, traditional and local communities.

- **Strengthen screening by state-owned banks**: State-owned banks play a pivotal role in executing Brazilian government policies. Yet, state-owned banks BNDES and Banco do Brasil have not yet adopted strong screening policies to ensure that their credit and investment do no harm to biodiversity and human rights.[118] It is crucial that the screening policies of these banks follow the Brazilian Sustainable Finance Taxonomy and support the GBF targets.
- **Integrate sustainability criteria in monetary policy**: BCB should further develop its policy to include social and environmental criteria in its collateral lists. Similar criteria should be linked to its asset purchase programme, and should be used to introduce preferential borrowing rates for sustainability-linked loans. To check which bonds and loans meet these criteria verification by independent third parties should be required.
- **Improve biodiversity risk assessment**: Brazilian financial regulations require banks to integrate environmental, social and climate risks in their risk-management system. This means that the impact of these factors on the financial risk profile of the bank is covered. But to align with Target 14 of the GBF, banks should also consider the impacts of their financing on the environment and society (double materiality approach). Such negative impacts should require banks also to act when their own financial position is not at stake. Further, the BCB should require banks to evaluate periodically their techniques regarding stress scenarios, since nature risks continue to evolve.
- **Integrate sustainability criteria in capital adequacy ratios**: The BCB should consider incorporating social and environmental risks into the different approaches to calculate capital requirements. This could take the form of an adjustment factor in the models used to calculate capital requirements under Pillar 1 that incorporates these risks.[119] Lower reserve requirements should be introduced for sustainable finance products while higher capital requirements – and even exposure limits – would be required for companies harmful to landscapes and biodiversity.
- **Include transition plans in the PSRAC**: Financial institutions are required to establish a set of principles and guidelines on social, environmental and climate-related issues (PSRAC) to be observed by the institution. While the PSRAC should contain targets related to social, environmental and climate issues, the regulation does not require financial institutions to develop or adopt transition plans to meet these targets. According to the Guidelines for Climate Target Setting for Banks published by the UN Environment Programme,[120] banks should set long-term and intermediate targets regarding their greenhouse gas emissions and establish a transition plan, including actions, appropriate metrics to measure these targets, and report progress annually. The transition plans should align with Brazil's Sustainable Finance Taxonomy and should cover sectors with high impact on biodiversity such as agriculture, livestock and forestry.
- **Improve disclosure and transparency**: The Report on Social, Environmental and Climate-related Risks and Opportunities (GRSAC Report) must contain information related to the governance of risk management for environmental, social and climate risks and real and potential impacts and the processes for management of these risks. The GSRAC Report should be further improved by providing transparency on the companies being financed by the bank and by requiring a regular assessment of the impacts of the bank's financing decisions on environmental and social issues, which would be aligned to Target 15 of the GBF. This would also incentivise banks to consider transition plans to mitigate their impacts in the medium and long term. By developing a Brazilian Sustainable Finance Taxonomy, the Brazilian government could define what activities could be considered to be creating environmental, social and climate risks and what should be expected of an effective transition plan for the sectors in which these activities take place.

- **Hold financial institutions accountable**: BCB and criminal authorities should act if banks do not meet the requirements in existing regulations and the new regulations proposed above. Fines and sanctions such as capital add-ons, concentration limits, holding board members accountable, or (temporarily) revoking a banking licence should be used.

5

Capital market regulations in China

Although China is not a tropical forest country, a very significant part of the bonds issued by the 300 commodity companies producing in, or sourcing from tropical countries, which are included in the F&F database are issued on the Chinese capital market. In this chapter we therefore focus on Chinese regulations for the sell-side of the capital market – the companies issuing bonds and the financial institutions who support them in this process.

5.1 Overview of the regulatory landscape for bond issuances in China

China's capital market operates within a regulatory framework that is intricately woven into the fabric of the country's political and economic governance. At its core, the regulatory authority rests with the State Council, under the purview of the Communist Party of China (CPC), which holds the ultimate power to influence and direct economic policies and regulations. The State Council does promulgate regulations and publish opinions relevant to the functioning of the Chinese capital market, but usually these only set out general principles without concrete measures or standards.

Under the umbrella of the State Council, it is the role of a large group of regulators and authorities to provide more detailed regulations, measures and guidelines for the Chinese capital market. This multitude of regulatory bodies and authorities includes financial regulators, environmental authorities, economic and corporate oversight bodies and the stock exchanges. These different entities produce regulatory and guiding documents, individually or jointly, with varied focuses and angles, encompassing the function of the capital market, green bonds, information disclosure, ESG reporting, and so on.

The combination of these regulatory and recommendatory documents affects how capital market activities align with national priorities for sustainable development, collectively establishing standards and measures that influence the allocation of financial resources towards projects, including those with an impact on environmental sustainability and biodiversity conservation.

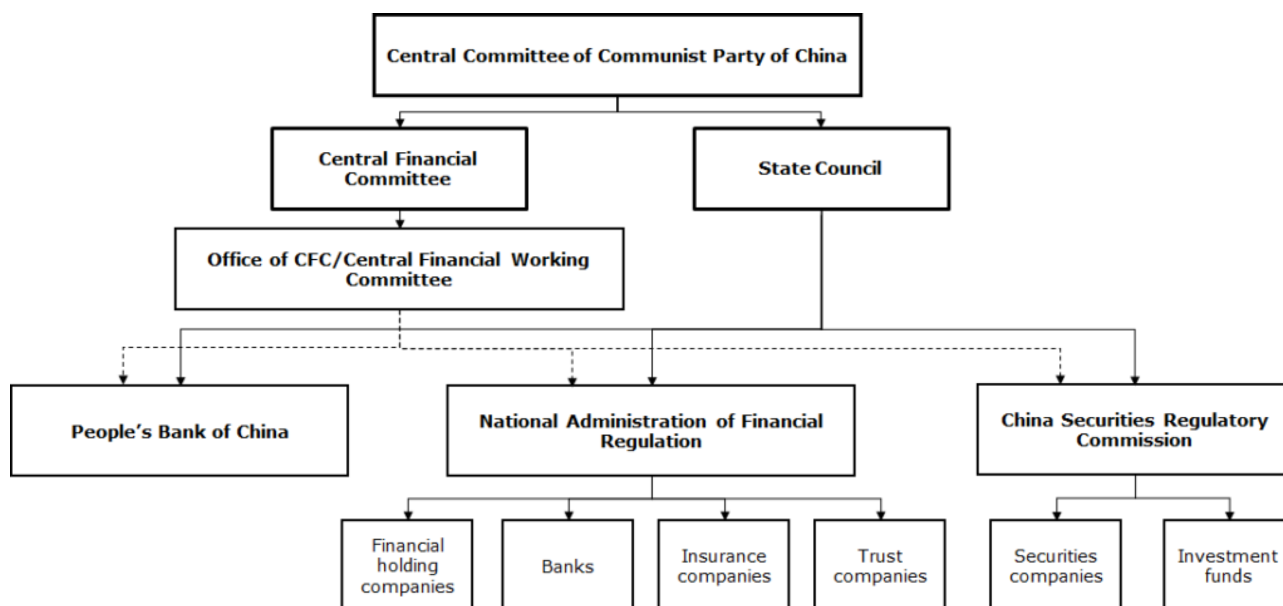
5.2 Regulatory bodies affecting issuers on the Chinese capital market

This section briefly introduces all the relevant authorities and regulators affecting issuers on the Chinese capital market, describing their mandates and roles.

5.2.1 Financial regulators

In March 2023 China underwent an institutional reform of the State Council. This brought about a significant restructuring of how financial regulation is organised, including adjustments in the mandates of the People's Bank of China (PoBC) and the China Securities Regulatory Commission (CSRC), and the establishment of the National Financial Regulatory Administration (NFRA) to replace the former China Banking and Insurance Regulatory Commission (CBIRC). Figure 4 shows the structure of the financial regulatory regime in China since the reform of March 2023.[121]

Figure 4 China's new financial regulatory regime since the reform of March 2023



Source: B. Chen (2023, September 11), "What China's reforms mean for financial regulation", OMFIF, online: https://www.omfif.org/2023/09/what-chinas-reforms-mean-for-financial-regulation/, viewed in September 2024.

Since this institutional reform the main regulatory bodies are:

- **China Securities Regulatory Commission (CSRC)**

  As China's main policy-maker and regulator of the securities sector, the China Securities Regulatory Commission (CSRC) drafts laws, regulations and rules, and formulates principles, policies and development plans for securities, futures and fund markets. It performs law enforcement in the bond market and oversees the capital markets by regulating and supervising the issuance, listing, admission, trading, custody and settlement of stocks, convertible bonds and corporate bonds on the exchange market. Additionally, it regulates the securities market behaviour of listed companies, non-exchange-listed public companies, bond issuers, and their shareholders and actual controllers, including information disclosure on the securities market. CSRC's regulatory and supervisory power also extends to foreign companies issuing and listing securities in the Chinese domestic exchange market.[122]

  China has two different types of corporate bond: exchange-traded corporate bonds (公司债券) issued by corporates on stock exchanges, and enterprise bonds (企业债券) issued by China's Central State-owned Enterprises (CSoE) on both stock exchanges and China's inter-bank bond market.[123] Before the 2023 institutional reform, CSRC was only in charge of reviewing and approving the issuance of exchange-traded corporate bonds, while the National Development and Reform Committee (NDRC) was responsible for enterprise bonds. Since then, CSRC has been upgraded to an institution directly under the State Council, taking over the mandate from the NDRC to review and approve the issuance of both of types of corporate bond.

- **People's Bank of China (PBoC)**

  As the central bank of China, the People's Bank of China (PBoC) focuses on monetary policy formulation and macroprudential management. Additionally, PBoC also supervises the inter-bank bond market and leads the formulation of national rules for the corporate credit bond markets and their derivatives markets. The supervision of financial holding companies and other financial groups, as well as the protection of consumers of financial products, was transferred in March 2023 to the newly established NFRA.[124]

- **National Financial Regulatory Administration (NFRA)**

  As China's new financial regulator to replace the CBIRC, the National Financial Regulatory Administration (NFRA)is in charge of integrated regulation of China's banking and insurance institutions, as well as financial holding companies. Although the NFRA does not supervise the capital market and securities sector directly, it oversees the business conduct and information disclosure of banks, assesses risk and compliance, and punishes violations and misconduct.[125] Considering the critical roles Chinese banks play in the process of corporate bond issuances, such as underwriting, advising, marketing and distribution, pricing and book building, regulatory compliance and trustee services, NFRA's policy-making has a significant effect on corporate bond issuances.

5.2.2 Environmental authorities

Biodiversity risks mainly fall under the responsibility of two Chinese ministries. Although these ministries do not play a direct role in regulating the capital market, they have an indirect influence. They set standards on ecology, the environment, and natural resource protection and conservation that all companies operating in China, including those issuing bonds on the Chinese capital market, should observe.

- **Ministry of Ecology and the Environment (MEE)**

  The Ministry of Ecology and the Environment (MEE) is responsible for establishing and improving the fundamental system in China concerning the ecological environment. It drafts and enforces relevant laws and regulations, formulates and implements departmental rules, and organises the formulation of ecological environmental standards, benchmarks and technical specifications.

- **Ministry of Natural Resources (MNR)**

  The Ministry of Natural Resources (MNR) oversees the sustainable use of natural resources in China. It manages land use and resource allocation, and develops and enforces regulations, rules, policies and guidelines in these areas.

5.2.3 Economic and corporate regulators

China has various authorities and regulators that issue regulations and set guidelines for different types of company, including companies issuing bonds on the capital markets. The actions of these regulators can therefore influence how such companies deal with biodiversity risks.

- **Ministry of Finance (MoF)**

  The MoF is the central governmental body responsible for formulating and implementing fiscal policies, managing government expenditures, debt and revenues. It also formulates national tax rules for the capital market and establishes policies that favour the entry of medium- and long-term funds into the market, supporting green finance and inclusive finance.[126]

  On behalf of the State Council, the MoF exercises the investor rights and responsibilities related to State-Owned Enterprises (SOEs) in the financial sector and formulates national regulations for the management of these financial SOEs. This means that MoF acts as the dominant shareholder for most of the major Chinese banks that provide securities services for corporate bond issuers on the capital market, such as underwriting and advising.[127]

- **National Development and Reform Committee (NDRC)**

  As China's macroeconomic supervisory and regulatory body under the State Council, the NDRC is in charge of drafting and formulating plans, laws, regulations and rules on national economic and social development, and economic system reform. It decides on market access, oversees and approves major investment projects, and creates and implements policies aimed at sustainable development and environmental protection.[128]

Although NDRC is not a primary regulator of the capital market, its policies and approvals ensure that capital market activities align with the country's economic and sustainable development objectives. Its role in overseeing the issuance of enterprise bonds has been taken over by the CSRC (see section 5.2.1), but the NDRC remains in charge of facilitating the financing of large-scale infrastructure projects, which often involves raising capital through bonds and other financial instruments. Moreover, while the direct regulation of financial instruments falls under the purview of the CSRC, the NDRC influences the development and use of financial instruments through its economic and industrial policies.

- **Ministry of Industry and Information Technology (MIIT)**

  The Ministry of Industry and information Technology (MIIT) is the key regulator of China's industrial sectors. It formulates and implements policies to promote industrial growth and sustainable transformation, sets and enforces industry standards and regulations, and promotes sustainable practices and circular economy within the industrial sector.

  In September 2023 the CPC and the State Council delegated the responsibility of promoting and supervising the development of medium and small enterprises to MIIT.[129] Although MIIT does not directly regulate the capital markets, its policies impact industries and corporates that participate in these markets.

- **State-owned Assets Supervision and Administration Commission of the State Council (SASAC)**

  The SASAC is a specialised regulatory body set up by the State Council, tasked with supervising and overseeing State-Owned Enterprises (SOEs), except for financial SOEs which fall under the supervision of MoF as explained in section 5.2.3. Its primary mandate is to ensure that these enterprises operate efficiently and sustain profitability. Additionally, SASAC works towards enhancing corporate governance within SOEs, promoting transparency, risk management and accountability.

5.2.4 Stock exchanges

There are four stock exchanges in China:

- SSE (Shanghai Stock Exchange);
- SZSE (Shenzhen Stock Exchange);
- BSE (Beijing Stock Exchange); and
- HKEX (Hong Kong Exchanges and Clearing Limited).

Established in 1990, SSE and SZSE are the primary exchanges in mainland China, while BSE was officially launched in 2021 and focuses on innovative small and medium-sized enterprises (SMEs). HKEX, formed in its current structure in 2000, provides a platform for companies to raise capital through initial public offerings (IPOs) and secondary offerings.

While the stock exchanges themselves are not regulatory bodies, they wield significant influence over companies issuing shares and bonds. Companies seeking to list their securities on any of these exchanges must adhere to the exchanges' listing requirements, rules and regulations, which include initial listing requirements and ongoing disclosure and reporting obligations. Non-compliance with these regulations can lead to penalties, including fines, suspension of trading or even delisting from the exchange.

5.3 Regulatory documents affecting how issuers deal with biodiversity risks

Section 5.2 provided an overview of the numerous regulatory bodies that influence how (bond) issuers on the Chinese capital market operate. While this regulatory landscape may appear quite

fragmented, it is increasingly common in China for different regulators jointly to issue one regulatory document.

It is also important to note that the regulatory documents issued by different authorities and regulators can differ in form, including regulations, measures, guidelines and notices. The status or weight of these regulatory documents varies. In principle, regulations carry the highest legal authority and enforceability, followed by measures, which provide detailed instructions for implementation. Guidelines and notices offer advisory recommendations. In other words, compliance with regulations is mandatory, while adherence to measures, guidelines and notices is often encouraged but not always legally required. That said, the actual effectiveness of, and compliance with, measures and guidelines also largely depends on various factors, such as the determination of the regulators to enforce them and the incentives given to companies and financial institutions. In China it is always risky to ignore recommendations given by government bodies.

The sub-sections below give an overview of relevant regulatory documents, grouped thematically as usually they are issued by more than one authority or regulator.

5.3.1 Functioning of the capital market

The following regulatory documents set rules for the functioning of the Chinese capital markets, with a focus on the use of fund-raised transparency, and due diligence in relation to securities/bonds, which could potentially affect how issuers deal with biodiversity risks.

- In 2011 the State Council revised its *Regulation on the Administration of Corporate Bonds*, setting out general rules for corporate bond issuance in China. Back then, foreign companies were not yet allowed to issue bonds in China. Biodiversity or other ESG-related aspects were not addressed in the regulation and the only due diligence that underwriters were required to do was to check the authenticity, accuracy and completeness of the issuer's articles of bond issuance and other related documents, which were also the only information that bond issuers are required to disclose.
- In December 2020, PBoC, NDRC, and CSRC jointly released a policy particularly governing information disclosure in bonds activities, *the Measures for the Administration of Information Disclosure Concerning Corporate Credit Bonds* (in Chinese) The measures govern information disclosure during the issuance and duration of enterprise bonds and corporate bonds, as well as non-financial enterprise bonds issued on the interbank bond market. Bond issuers are obliged to conduct timely information disclosure, to establish and disclose board-level information disclosure management systems. In particular, they must disclose the compliance with law and regulations of the usage of the funds raised, who is using the funds, and how much. Any changes of the funds' use must undergo required and agreed procedures and the issuer must disclose the proposed change of the use of the fund before starting to raise the fund. Article 18 of the M]measures lists the significant matters that may likely affect repayment capacity or investor interests, including investigations by authorities, criminal punishment, major administrative punishment or administrative supervisory measures, major litigation and arbitration. The measures also set up information-disclosure obligations for third-party securities service agencies providers involved in bond issuance, trading and duration management, including but not limited to underwriters, credit rating agencies, accounting firms, law firms, asset valuation agencies and trustees (Chapter 3).
- At the ministerial level, in 2023, the CSRC issued two measures on securities issuance, in which information disclosure and due diligence are touched upon, though without links to biodiversity or ESG. The *Measures for the Administration of the Registration of Security Issuance of Listed Companies* issued in February 2023 regulate security issuance activities of companies listed on SSE and SZSE and apply to stocks, convertible corporate bonds, depositary receipts and other types approved by the State Council. Listed companies (and their controlling shareholders, actual controllers, directors, supervisors and senior management personnel) are

required to conduct due diligence in cooperation with authorities, sponsors and securities service institutions, and to update information disclosure documents after a registration decision is made and before the securities are listed for trading. (Art. 5) The sponsors and securities service institutions are prohibited from requesting or assisting listed companies in concealing information that shall be provided or disclosed and are required to perform continuous due diligence (Art. 5 and 33).

In the chapter on information disclosure, the measures require that the listed companies, when issuing securities, prepare information disclosure documents in accordance with the information disclosure rules formulated by the CRSC as the minimum requirement. It is also clarified that, regardless of whether the CSRC has clear requirements in place, the listed companies shall fully disclose all information necessary for investors to make investment decisions and the content shall be authentic, accurate and complete (Article 38).

- The *Measures for the Administration of the Issuance and Trading of Corporate Bonds,* revised by the CSRC in October 2023, apply both to exchange-traded corporate bonds and enterprise bonds, and they clearly require that funds raised by publicly issued bonds must be used in accordance with the purpose of funds listed in the bond prospectus and any change in the purpose of funds must be resolved by the bondholders' meeting (Article 13).

  This document emphasises that bond issuers are the primary information-disclosure obligation bearer to disclose significant matters. Those significant matters include, but are not limited to, involvement in major litigation and arbitration cases, significant changes in the projects that may affect the allocation and utilisation plans of raised funds, or potentially result in substantial uncertainties regarding the realisation of anticipated operational benefits from the project. It is required that, after a registration decision is made, the leading underwriter and securities service institutions continue to perform due diligence. When a significant matter occurs, the issuer, the lead underwriter and the securities service institution must promptly report to the stock exchange; the stock exchange must handle those matters in a timely manner, and shall issue a clear and timely opinion and report to CSRC when the issuer is found to have a significant matter that affects the issuance conditions and listing conditions (Article 26).

  Concerning fund use, the measures mandate that the use of funds raised shall be disclosed in the bond prospectus. Furthermore, in the case of publicly issued bonds, the issuer is required to disclose the use of funds raised and the progress of investment projects (if relevant) in the periodic report; in the case of non-public issued bonds, the disclosure of the use of funds raised shall be agreed in the bond prospectus (Article 52).

- Regarding CSoEs bond issuers particularly, SASAC issued the *Measures for the Administration of Bond Issuance by Central State-owned Enterprises* in May 2023. While this document touches on information disclosure, it does not pay attention to ESG or sustainability aspects.

- In addition, in October 2023, the Securities Association of China (SAC), the self-disciplinary association of China's securities sectors, revised and issued its voluntary rules (in Chinese) on corporate bond underwriting, due diligence and trusteeship management.

- In March 2023 a draft revision of the Regulation on the Supervision and Administration of Securities Companies (State Council, enacted 2008, first revised 2014) was released by the CSRC for public consultation. The draft pays attention to due diligence responsibility of securities companies by introducing an article (Article 54) which stipulates that "securities companies engaged in securities underwriting and sponsorship services are required to conduct due diligence, carefully verifying the issuer's application documents and disclosure materials to ensure the authenticity, accuracy, and completeness of their opinions and fulfilling continuous supervisory and instructing obligations". The public solicitation period ended on 30 April 2023, while the revision has not yet been officially released.

- In April 2024 the State Council issued its *Opinions on Strengthening Supervision, Preventing Risks and Promoting High-quality Development of the Capital Market*. These opinions outline guiding principles on market access, continuous supervision, delisting, institutional regulation and trade supervision. They emphasise enhancing and tightening the supervision of issuance underwriting and information disclosure on supported projects, and strengthening corporate governance (Articles 2 and 3). While ESG matters remain unaddressed in this document, "improving the sustainability information disclosure system of listed companies" is briefly mentioned (Article 8).

5.3.2 Green bonds

Green bonds have become a new trend in China. In November 2023 a *Notice on Increasing Financial Industry Support for the Development of the Private Sector* was jointly released by PBoC, NAFR, CSRC, the State Administration of Foreign Exchange, NDRC, MIIT, MoF and the All-China Federation of Industry and Commerce. This document indicates the regulators' intention to support private enterprises in issuing green bonds, carbon-neutral bonds and transition bonds, as well as guiding financial institutions to increase their investment in bonds issued by private enterprises.

Since the joint release by PBoC and the former CBIRC of their *Guiding Opinions for Establishing the Green Finance System* in 2016 to set up an overall structure for the development of "green finance" in China, including green bonds, regulatory bodies including NDRC, PoB, CSRC and MEE have issued various regulatory documents covering different aspects of green bonds, including eligibility, information disclosure, fund use and third-party assessment and certification.

- **Eligibility**

  China's *Green Bond Endorsed Projects Catalogue* (2021 Edition) was jointly announced by PBoC, NDR, and CSRC on 21 April 2021. The catalogue defines green bonds as securities that use the funds raised specifically to support green industries, green projects or green economic activities that meet specified conditions, including but not limited to green financial bonds, green enterprise bonds, green exchange-traded corporate bonds, green debt-financing instruments and green asset-backed securities. It defines the green projects for which funds can be raised with green bonds as projects that contribute to the protection and restoration of biodiversity (Category 4.2), including ecosystem restoration, sustainable forestry, and conservation of natural habitats. The catalogue does not explicitly limit "green projects" to those carried out within the territory of China: the term applies to both domestic and overseas projects.

  The projects endorsed by green bonds must meet the requirements listed in the explanatory notes of the *Green Industry Guidance Catalogue* (2019 Edition). This includes the "do no significant harm" principle for projects embedded in ecosystems such as forests, oceans and rivers.

  A few months after the adoption of the GBF, China released its *National Biodiversity Conservation Strategy and Action Plan (2023–30)* in January 2024 to enhance biodiversity governance and implement the GBF. This fourth edition of China's NBSAP sets forth biodiversity conservation targets for 2030 and 2035, delineating 27 priority actions and 75 priority projects in four priority areas. "Diversified investment and financing mechanisms" is listed as the 26th priority action, which includes integrating biodiversity protection into China's *Green Bond Endorsed Projects Catalogue*.

  In February 2024 ten ministries and authorities (NDRC, MIIT, MNR, MEE, MOHURD, PBoC, MEA, MoT, NFRC and CSRC) issued a new *Guiding Catalogue for Green and Low-Carbon Transition Industries* (2024 Edition) in which a separate sub-catalogue (5.2.1) "Biodiversity Protection" is introduced under the Category of "Ecological Protection, Restoration and Utilisation". In the joint notice on the release of this *Guiding Catalogue* (2024 Edition), the ministries encourage

Chinese financial institutions to provide financial support for not only domestic projects that meet the requirements of the Catalogue but also "projects in overseas regions such as countries participating in the Belt and Road Initiative".

- **Assessment**

  According to the *Guidelines for Green Bond Assessment and Certification (Interim)*, issued by PoBC and CSRC in 2017, China's green bond assessment certification comprises two parts: pre-issuance evaluation and ongoing assessment. The pre-issuance evaluation determines whether the issuer's green bond framework is "compliant and comprehensive". This includes assessing the compliance of green projects and their selection and decision-making processes, fund management, adequacy of information disclosure and reporting systems, and the reasonableness of environmental benefit objectives. The ongoing assessment evaluates the effectiveness of these aspects, primarily including the evaluation of fund use, compliance with information disclosure, and the achievement level of environmental benefit targets.

  Assessment and certification agencies are allowed autonomously to choose methods such as interviews, on-site surveys and verification of environmental benefits based on the specific characteristics of green projects and assessment objectives. A green bond can be assessed and certified as "compliant", "no non-compliance found", "non-compliant" or "disclaimer of inability to make a conclusion". If a green bond assessed and certified as "non-compliant" fails to meet the requirements after a certain period of rectification, its green bond labelling shall be revoked.

- **Fund use**

  The above-mentioned *Guidelines for Green Bond Assessment and Certification (Interim)*, issued by PoBC and CSRC in 2017, require that the assessment and certification institutions check, prior to the issuance, whether the issuer has comprehensive management system on the raised fund and, during the life of the bond, whether the system is being effectively implemented (Articles 19 and 20).

  Concerning the quantitative restriction on the use of the raised funds, the regulation makes a difference between enterprise green bonds and exchange-traded corporate bonds (see section 5.2.1). In 2015 NDRC issued the *Green Bond Issuance Guidelines* governing enterprises bonds, which defines green bonds as those bonds of which the raised funds are primarily used to support projects focused on "green and low-carbon development", including pollution prevention and ecological agriculture and forestry. However, issuers are allowed to use up to 50% of the bond proceeds to repay bank loans and supplement operational capital, provided that debt-repayment measures are sound; issuers with a credit rating of AA+ and good operational performance are allowed to use the raised funds to replace high-cost debt incurred from ongoing green projects.

  Concerning green corporate bonds, SSE and SZSE both require that the funds used for green projects should not be less than 70% of the total funds raised by the bond. HKEX has clear guidelines regarding the use of funds raised through green bonds aligning with the Green Bond Principles (GBP) of the International Capital Market Association (ICMA) and the Green and Sustainable Finance Certification Scheme (GSFCS) of HK Quality Assurance Agency (HKQAA), while it does not mandate that all funds must be exclusively used for green projects.

  Stricter than those requirements, in July 2022 the China Green Standard Committee (CGSC) released the China Green Bond Principles, which requires that 100% of the funds raised from green bonds be used for green projects such as green industries and green economic activities that meet the specified conditions. However, the CGSC is only an industrial self-regulatory body and the principles are thus not binding as a regulatory document.

- **Information disclosure**

  China does not have specific policies addressing transparency of green bonds, and information disclosure requirements are scattered in different documents. For example, the *Notice on Supporting Central State-Owned Enterprises in Green Bond Issuance*, issued by CSRC and SASAC in December 2023, stipulates that during the bond's duration, CSoEs must strictly comply with capital market rules and regulatory requirements, fulfil the information disclosure obligations promised in the prospectus and other relevant documents, and promptly disclose any significant matters that may affect their debt repayment ability or the rights of investors (Article 19).

  In March 2024 PBoC, NDRC, MII, MoF, MEE, NFRA, and CSRC jointly issued the *Guiding Opinions on further Strengthening Financial Support for Green and Low Carbon Development*. This document promotes Chinese corporates and financial institutions to issue green bonds and green securitised bonds domestically and abroad. It emphasises optimising green bonds standards, enhancing requirements on the use of funds raised and information disclosure. The objectives include researching and formulating recommendatory guidelines for low-carbon projects in China's *Green Bond Endorsed Projects Catalogue*, carbon accounting methods, and disclosure standards for green bonds. Bond issuers are required to account for and disclose the carbon emission reductions and carbon emissions of the projects supported by the funds raised.

  Those regulators vow to establish step by step an "environmental information disclosure system" covering different types of financial institutions, to promote mandatory environmental information disclosure by listed companies and bond issuers, and to formulate and improve guidelines for sustainability information disclosure of listed companies. The guiding opinions also encourage and support credit rating agencies in integrating ESG considerations into their rating methods and promoting the sharing of environmental disclosure of listed companies and bond issuers.[130]

  In addition, the document calls for the improvement and establishment of green bond statistics, green share standards, climate financing project standards, transition activities catalogues and disclosure requirements (Section II.5).

- **Local regulations**

  Compared to the national progress, local regulatory efforts and steps are often more progressive in China. For example, Shenzhen, China's first special economic zone, which houses significant financial institutions and markets and is a pilot city for reforms, has been accumulating experience and laying a practice-based reference for national legislation and regulation improvement. In 2020 Shenzhen introduced the country's first green finance regulation, the *Shenzhen Special Economic Zone Green Finance Regulations* (effective on 1 March 2021), the first in China to propose mandatory environmental information disclosure by financial institutions. To implement the regulation, the Shenzhen Municipal Local Financial Regulatory Bureau, in conjunction with the Shenzhen Branch of PoBC, CSRC, and former CBIRC, issued the *Guidelines for Financial Institution Environmental Information Disclosure* in September 2022. Following that, local authorities released their *Indicator Requirements for Disclosure of Environmental Benefits Information in Green Investment and Financing of Financial Institutions* in December 2023, which entered into force on 1 January 2024.[131] The Indicator Requirements apply to green investment and financing, which is defined as including both direct investment in green companies and projects, and financing activities to support green activities.

5.3.3 Environmental information disclosure of listed companies and bond issuers

This section describes regulatory documents dealing with environmental information disclosure by listed companies and bond issuers. These documents present an increasing policy attention of the Chinese regulators on the "ecological, environmental, and climate change impacts" of the

operations and financing of companies.

- **Listed companies and bond issuers in general**

  China's listed companies are subject to the *Measures for Information Disclosure of Listed Companies* (CSRC, revised 2021) to disclose circumstances that actually and potentially make significant impacts on the stock price. However, the measures do not explicitly address environmental factors.

  In May 2021 MEE released the *Plan for the Reform of the Environmental Information Disclosure in Accordance with Law,* which set a road map for Chinese corporate environmental information disclosure and a goal of establishing mandatory disclosure requirements for Chinese corporate by 2025. This plan requires key companies, including listed companies and bond issuers, to carry out mandatory environmental information disclosure. It also requires regulators (MEE, MIIT, PoBC, SASAC, CSRC) to establish, disclose and exchange the lists of companies subject to mandatory environmental information disclosure and to enhance enforcement, supervision and punishment. The plan does not specify the content of environmental information to be disclosed, but it lists certain events as "major environmental information" that may have a significant impact on the public and investors or cause market risks. These include changes in administrative permits related to ecological and environmental matters, environmental administrative penalties if the company is being held criminally liable for violations of ecological and environmental laws, environmental emergencies and ecological and environmental damage compensation.

  To implement this plan, MEE issued the *Measures for Corporate Environmental Information Disclosure in Accordance with Law,* which went into force on 8 February 2022 and applies to listed companies and corporate bond issuers. However, not all listed companies and bond issuers are subject to mandatory disclosure – only those which could be held criminally liable or subjected to administrative penalties due to their ecological and environmental violations of Chinese law and regulations (Articles 7 and 8). Despite that, one of the highlights of the measures is that they require that the annual environmental information disclosure of listed companies and bond issuers shall include not only standard environmental information that ordinary companies are obliged to disclose (including basic information related to production and environmental protection, environmental management, pollutants, carbon emission, environmental emergency and violation, and status of interim environmental disclosure in the current year), but also financing methods, amounts, allocation, and climate change and ecological and environmental protection information related to the supported project (Article 15).

  Furthermore, the details of the required disclosure on the ecological and environmental information are further provided in MEE's *Format and Guidelines for Corporate Environmental Information Disclosure in Accordance with Law* effective on the same day, which includes the company's environmental management, the generation, discharge and treatment of pollutants, carbon emission, environmental emergency, and ecological and environmental violations (Section 11). Neither the measures nor the format and guidelines state that the disclosure is limited to environmental information of projects carried out in China. Taking into account that the funds raised are allowed to be used, and in fact are used, for projects both inside and outside China, environmental information disclosure obligations of bond issues bound by the measures are extended to their financed projects overseas.

  In addition, on 15 March 2024, CSRC issued its *Opinions on Strengthening Supervision on Listed Companies (Trial)* to its dispatched offices, subordinate units, associations, internal departments and all exchanges. This document requires, in a single sentence without further explanation, that these entities formulate sustainability information disclosure rules (Article 16).

- **CSoE-controlled listed companies**

  On 21 July 2023 SASAC published the *Research Report on the Preparation of ESG Reports for Listed Companies Controlled by CSOEs.* It requires more CSOE-controlled listed companies to disclose ESG reports and is seen as an important reference and *de facto* guidance for the CSOE-controlled listed companies' ESG reporting practice.

- **Listed securities companies**

  In addition, listed securities companies, which have the dual attributes of both securities companies and listed companies, are subject to the *Rules on Strengthening the Supervision of Listed Securities Companies* (CSRC, revised September 2020). As securities companies, they must comply with the supervisory regulations specific to their industry and, as listed companies, they must adhere to listing and issuance supervision regulations. For instance, they must disclose significant matters such as changes in their risk-control indicators and regulatory measures taken against them, including but not limited to restrictions on business activities, suspension of operations and cessation of new business approvals, as stipulated in the *Measures for Information Disclosure of Listed Companies* (CSRC, 2007 enacted, 2021 revised) discussed in 5.3.1 (Article 5).

- **Corporate Sustainability Disclosure**

  In addition to currently effective regulatory documents, on 27 May 2024 the MoF released its *Draft Principles for Corporate Sustainability Disclosure – Basic Principles* to solicit opinions. This draft, applicable to companies registered in China that conduct sustainability reporting as required, is a joint regulatory step taken by MoF together with nine other ministries including the Ministry of Foreign Affairs (MoFA), NDRC, MIIT, MEE, MoC, PBoC, SASAC, NFRC and CSRC. In the context paper published together with the draft, MoF recognises that most sustainability reporting is voluntary and without unified standards and principles. The draft, reportedly the highest-level document to emerge so far on sustainability disclosure in China,[132] requires that the disclosure of sustainable information shall take into account the company's value chain, including information on sustainability risks, opportunities and impacts related to the reporting entity and its upstream and downstream value chain activities formed through direct and indirect business relationships. As defined in the draft, value chain refers to "the interactions, resources and relationships related to the business model of a company and its external environment, including the interactions, resources and relationships used and relied upon by its products or services from concept to delivery, consumption to the end of the life cycle" (Article 5). Although not explicitly indicated, it can be concluded that sustainability risks and impacts occurring overseas should be included in a company's disclosure when its value chain extends beyond the territory of China.

  It also establishes requirements on the quality of the disclosure (reliable, relevant, comparable, verifiable, understandable and timely) and clarifies four core elements of sustainability disclosure with reference to the International Sustainability Standards Board (ISSB)'s two new International Sustainability Disclosure Standards: IFRS S1 (General Requirements for Disclosure of Sustainability-related Financial Information) and IFRS S2 (Climate-related Disclosures).

  The public solicitation period for the *Draft Principles* ended on 24 June 2024, but the *Basic Principles* have not been officially released yet.

5.3.4 Green finance strategy

In the *Green Finance Guidelines for Banking and Insurance Sectors*, published in June 2022, the CBIRC (which is now replaced by the NFRA) requires banks and insurers to publicise their green finance strategies and policies. It requires banks and insurers to effectively identify, monitor, prevent and control ESG risks in their business activities. The *Guidelines* cover risk-management expectations related to energy consumption, pollution and environment protection, in addition to

climate change.

The guidelines ask Chinese banks and insurers, for the first time, to establish grievance mechanisms as a tool for managing the environmental, social and governance (ESG) risk of their clients. The grievance mechanism offers a channel through which communities that are impacted by financing or investment can be heard on the one hand, and investors can address the risks of their financing and investment effectively and efficiently on the other.[133]

The guidelines do not, however, cover banks in their role as underwriters of corporate bonds. Article 4 of this regulation states that the "clients" to whom the banks shall pay more ESG attention are "borrowers or the financing party", and throughout the guidelines requirements for banks relate to the granting of credit and investment.

5.3.5 Stock Exchange ESG reporting requirements for share and bond issuers

Chinese stock exchanges have set some specific ESG reporting requirements, which are relevant for companies issuing bonds on the capital market.

The HKEX has been a pioneer in this field with its *ESG Reporting Guide* first released in 2013 and revised in 2020. Since the revision, ESG mandatory disclosure applies to all listed issuers on HKEX. By 2025 issuers' climate change reporting will meet global standards set by the Task Force on Climate-related Financial Disclosures (TCFD).

SSE has also revised its *Self-Regulatory Guidelines for Listed Companies No. 9 – Evaluation of Information Disclosure* in August 2023. This revision emphasises the inclusion of environmental information in the reporting practice, thereby evaluating issuers' information disclosure performance. Additionally, both SSE and SZSE have updated their *Self-Regulatory Guidelines for Listed Companies – Sector-specific Information Disclosure, r*evised in 2022 for SSE and in 2023 for SZSE.[134]

In a coordinated move, BSE, SSE and SZSE each introduced in April 2024 a *Guidance on Sustainability Reporting by Listed Companies*. The three guidances guide and regulate the disclosure of sustainability reports and ESG reports by companies listed on these exchanges. As an overarching principle, the guidances take a double materiality approach on sustainability disclosure topics. They require entities not only to look at the financial materiality of sustainability risks, but also at whether an entity's performance in that topical area has a material impact on the economy, society and the environment (impact materiality).

The guidances are largely aligned with international standards (ISSB's IFRS Sustainability Disclosure Standards and the Global Reporting Initiative Standards), which help reduce the cost of preparation of sustainability-related disclosures for companies that are subject to various disclosure regimes. The guidelines emphasise the importance of addressing environmental concerns, fulfilling social responsibilities and improving corporate governance. The topics include climate change, pollution control and ecosystem protection, rural revitalisation, ethics of science and technology, along with a differentiated disclosure approach across the topics. Entities are also encouraged to disclose actions and measures taken to strengthen supply-chain management, promote sustainable development, and ensure equal treatment of small and medium-sized enterprises. Information on product and service safety, data security, customer privacy protection and employee-related matters are also included amongst the disclosure topics.[135]

According to the guidances, sustainability reporting is mandatory for a certain range of companies listed on SEE and SZSE, while it remains voluntary for all companies listed on BSE. Around 457 companies listed on BSE, SSE and SZSE are obliged to disclose sustainability reports and are covered by the guidances.[136] Companies required to disclose must publish their 2025 annual sustainability reports by 30 April 2026. However, all listed companies are encouraged to apply the guidance voluntarily to disclose their 2024 annual sustainability reports ahead of schedule.

5.4 Case: Sudcam

5.4.1 Description of the case

"When I got married in 1981, being here at home, I heard the monkeys screaming across the street. When my child was sick, I would cross the road and look for some bark and leaves to treat the child. But today we can't find anything! The company has razed everything."

An elderly woman told two Cameroonian journalists in 2020 how her village was severely impacted by the activities of a massive nearby rubber plantation.[137] She lived in one of the 30 villages in southern Cameroon considered to be most impacted by Sudcam, a large rubber plantation company. Rubber is used, among other things, for the production of car tyres, and gloves for example during the global pandemic.

Large-scale deforestation in critical forests and the displacement of indigenous communities without compensation were among the most notable abuses reported about the company's activities in Cameroon.[138] Between April 2017 and April 2018, for example, Sudcam cleared about 2,300 hectares of forest.[139] Before that, between 2011 and 2018, Sudcam had destroyed a tropical forest of an estimated 10,000 ha, the size of Paris, releasing the equivalent of 11 million tonnes of CO_2.[140]

Sudcam is part of a complex governance and ownership structure, resulting in a lack of transparency. Sudcam is an 80% subsidiary of the Corrie MacColl group, which controls many rubber plantations in Malaysia and Cameroon through a network of subsidiaries. Its key operations are located in Indonesia, Malaysia, Thailand, China and Africa. Particularly in Africa, Halcyon Agri's operations are linked to the clearance of critical forests, notably in Cameroon.[141]

Corrie MacColl itself is a wholly owned subsidiary of Halcyon Agri, a Singapore-based multinational corporation producing and processing rubber with an annual revenue of nearly USD 2.7 billion in 2022. In turn, Halcyon Agri is owned by the Chinese companies China Hainan Rubber Industry Group and state-owned group Sinochem.[142]

Due to lack of corporate disclosure, it is unclear how many hectares of concession areas the company actually operates, but it claims it has a total land concession of 58,900 hectares.[143] This plantation is close to the Dja Faunal Reserve, a UNESCO World Heritage Site and home to numerous animal and plant species, several of which are globally threatened, such as the western lowland gorilla, chimpanzee and the forest elephant.[144] The indigenous Baka communities live within and around the reserve, which partly overlaps their customary lands. Baka depend on the forest for their livelihoods, including agriculture, fishing, gathering and hunting.[145]

Apart from the deforestation, which is clearly visible on satellite images,[146] Greenpeace Africa documented severe human rights violations. In 2019 the organisation published a report alleging human rights violations against indigenous Baka communities relating to Sudcam's rubber operations. Baka people's camps were destroyed, or they were forcibly displaced from their homes and lands so that the company could accommodate plantation workers. The company restricted access of Baka people to their agricultural, fishing and hunting areas and prevented them from praying on the graves of their ancestors.[147] In addition, the huge population growth in the area due to the influx of plantation workers led to intensified poaching of endangered species in the Dja Wildlife Reserve. Under pressure from NGOs and communities, the company agreed that they would stop clearing the lands, but they have not compensated the communities for the harm they perpetrated.[148]

Officially, Sudcam's parent company Corrie MacColl committed in 2018 to achieving "Zero Deforestation" across all their lands according to their statement,[149] but recent sources say that there are indications that deforestation in the region is still ongoing. Satellite images show that between 2019 and 2021, areas have been deforested recently in a zone of five kilometres around the plantations, totalling around 5,000 hectares.[150]

Between 2019 and 2024 (June), Sinochem – the ultimate parent company of Sudcam – issued USD 9.2 billion worth of forest-risk bonds. 95% of the value of these bonds was underwritten by Chinese banks. The largest among them was CITIC (USD 1.5 billion). It was followed by the Bank of Ningbo, which underwrote the issuance of USD 1.4 billion of forest-risk bonds for Sinochem, while the China Merchants Bank helped to issue USD 669 million worth of forest-risk Sinochem bonds during the same period.[151]

5.4.2 How Chinese regulations deal with this case

An assessment of how the present Chinese regulations relevant for issuing shares and bonds apply to this case, leads to the following observations:

- The three Chinese banks underwriting bond issuances by Sinochem are required by CSRC's *Measures for the Administration of the Registration of Security Issuance of Listed Companies* issued in February 2023 to conduct due diligence for the bonds underwritten. However, the measures do not extend the due diligence to environmental impacts of the projects funded, and the mandatory due diligence duty of bond underwriters is limited to checking the authenticity, accuracy and completeness of the articles of bond issuance and other related documents. In other words, the banks are not obliged under Chinese law and regulations to conduct due diligence in relation to the biodiversity or sustainability impacts of the bond-supported projects.
- Nevertheless, in its *Measures for the Administration of the Issuance and Trading of Corporate Bonds*, as revised in October 2023, CSRC requires that when a significant matter occurs, the lead underwriter of the bonds who bears continuous due diligence duty must promptly report to the stock exchange, and the latter must report to CSRC when the issuer is found to have a significant matter that affects the issuance conditions and listing conditions. According to the measure, such significant matters include significant changes in the projects that may affect the allocation and utilisation plans of raised funds, or potentially result in substantial uncertainties regarding the realisation of anticipated operational benefits from the project. Therefore, depending on the agreed use of the funds raised by the bonds issued by Sinochem, if the rubber plantation activities do not meet the purpose of fund use, the banks as bond underwriters should fulfil their due diligence duty to report this as a significant matter to the relevant stock exchanges.
- When the *Draft Principles for Corporate Sustainability Disclosure – Basic Principles*, published in May 2024, are released officially, China Hainan Rubber Industry Group and Sinochem will both be required to disclose details of their value chains, including information on sustainability risks, opportunities and impacts related to their upstream value chain activities formed through direct and indirect business relationships. This would require the companies to report, among other information, on the biodiversity and human rights impacts of the operations of Sudcam in Cameroon. The public solicitation period for the *Draft Principles* ended on 24th June 2024, but the Basic Principles have not been officially released yet.

5.5 Possible improvements of relevant regulations in China

5.5.1 Assessment of the present Chinese regulations

This chapter has described and summarised the financial regulations in China which could potentially be relevant to align financing flows related to corporate bond issuances with the targets

of the Global Biodiversity Framework (GBF). Table 8 assesses how far these regulations are aligned with three essential GBF targets, based on the methodology described in Appendix 1.

Table 9 Assessment of the present Chinese regulations against GBF targets

Assessment criteria		Colour score	Justification
1	Financial regulations do not allow investing in companies involved in conversion of natural landscapes.	Dark red	Financial regulations do not make any reference to avoiding the conversion of natural landscapes.
2	Financial regulations expect bond issuances to stimulate a just transition in the Agriculture, Aquaculture, Fisheries and Forestry sectors which supports the rights of workers, peasants, fisher folk, indigenous peoples, traditional and local communities.	Light red	Financial regulations do stimulate the issuance of green bonds, whose proceeds can be used for a just transition of relevant sectors in China itself. But not necessarily all proceeds have to be used in this way, social criteria are weak and the transitioning of these sectors overseas is not in the scope of the green bond guidelines. Normal corporate bonds are not covered either.
3	Financial regulations require transparency of all investment flows and full disclosure of biodiversity and social impacts of these flows.	Light red	Stock exchanges have issued guidance on disclosure on biodiversity and social impacts, but progress is expected on stricter reporting requirements. For now, they hardly cover impacts overseas, nor require transparency on where funds are invested (except for green bonds).

China's financial regulations for the capital market currently do not include explicit requirements that prohibit companies involved in the conversion of natural landscapes from raising funds on its capital markets. While there are guidelines and frameworks aimed at promoting sustainable development and environmental protection, such as the *Green Bond Endorsed Projects Catalogue*, these do not specifically bar investment in companies that may engage in activities leading to the conversion of natural landscapes. As a result, investors can still provide capital to projects and enterprises that might negatively impact natural ecosystems, highlighting a gap in the regulatory landscape when it comes to stringent biodiversity conservation measures.

As highlighted in section 5.3, there is a complex interplay between environmental protection policies and financial regulations in China, highlighting the need for comprehensive strategies that integrate biodiversity conservation goals more explicitly into financial decision-making processes.

China's financial regulations, notably the *Green Bond Endorsed Projects Catalogue* (2021 Edition), encourage and facilitate companies in raising funds for projects that promote a just transition in sectors such as agriculture, aquaculture, fisheries and forestry. These efforts emphasise environmental sustainability and the adoption of practices that restore environmental and ecological damage, reduce ecological impact and enhance resource efficiency. However, China does not strictly require that the funds raised from green bonds must be exclusively applied to finance of green projects. Instead, as described in section 5.3.2, flexibility is allowed in the use of green bond proceeds to varying extents by different regulators.

In addition, few, if any, Chinese capital market regulations address the rights of workers, indigenous peoples, traditional communities or local communities within these sectors. The focus remains primarily on environmental outcomes, aiming to mitigate environmental degradation and promote sustainable development practices without explicit provisions for social equity or community rights. As a result, while financial mechanisms like green bonds play a crucial role in advancing environmental goals, there is a recognised need for broader social considerations to

ensure equitable outcomes alongside environmental benefits in these sectors. Also, this framework should more explicitly extend to the overseas activities of Chinese bond issuers.

China has established some environmental information disclosure requirements for companies, including corporate entities, bond issuers, and listed companies. Existing specific regulations on corporate sustainability and ESG disclosure are mainly found in the SASAC *Research Report on the Preparation of ESG Reports for Listed Companies Controlled by CSOEs* (section 5.3.3), HKEX's *ESG Reporting Guide*, and the *Guidance on Sustainability Reporting of Listed Companies* of SSE, SZSE, and BSE (section 5.3.5). However, the SASAC research report, despite its likely de facto influence on the CSOEs and possible reference for other companies, is recommendatory in its nature. The guidance documents of SSE and SZSE have introduced mandatory sustainability reporting requirements, but they do not apply universally to all listed companies, and all the sustainability reporting requirements by BSE are voluntary. In addition, the *Draft Principles for Corporate Sustainability Disclosure – Basic Principles* (section 5.3.3) do have the potential to establish China's first broadly applicable sustainability disclosure standards, if they are eventually formalised as a joint ministerial regulatory document.[152] Nevertheless, these *Draft Principles* are currently still undergoing public consultation and thus do not have any regulatory effect yet.

Corporate bond issuers are required by the CSRC to disclose the actual use of the funds raised in their periodic reports. However, China's ESG or sustainability reporting requirements, particularly those related to fund-raising activities such as bond and share issuances on the capital markets, are to a large extent voluntary rather than mandatory. Furthermore, as section 5.3.3 has shown, although China's environmental information disclosure requirements can be interpreted as extending to impacts of projects overseas, not all bond issuers are subject to environmental information disclosure regulations – that is the case only for those held criminally liable or subject to environmental administrative penalties in China. This hampers transparency about how and where funds raised on the Chinese capital markets are used, and limits the ability of stakeholders to assess fully the environmental and social implications of investments funded via China's capital markets.

5.5.2 Recommendations for Chinese legislators and financial sector regulators

Below are some recommendations on how Chinese regulations related to the issuance of corporate bonds could be improved to limit the financing of corporate activities leading to (tropical) deforestation.

- **Prohibit illegal activities and deforestation**

  Impose explicit requirements in financial regulations that prohibit companies to raise funds, through issuances of (normal) bonds or shares, for illegal activities and for activities leading to conversion of natural landscapes, biodiversity loss or human rights violations, in China or overseas.

- **Develop a Sustainable Finance Taxonomy**

  Develop the *Green Bond Catalogue* into a Sustainable Finance Taxonomy that includes sector-specific lists of eligible activities and activities that should be avoided because they pose significant risks to biodiversity and climate, particularly those involving deforestation and habitat destruction.

- **Enhance requirements for green bonds**

  Explicitly mandate that 100% of the funds raised through green bonds must be allocated exclusively to activities aligned with the *Green Bond Catalogue* (to be further elaborated in a Sustainable Finance Taxonomy) and establish clear and enforceable sanctions for issuers found to be non-compliant with green bond regulations. Enhance independent third-party verification and certification processes to ensure that activities funded through green bonds are aligned with the Green Bond Catalogue (to be further elaborated in a Sustainable Finance

Taxonomy) and that investors and stakeholders are assured about the social and environmental impacts of their investments.

- **Strengthen sustainability reporting by issuers**

  Build on the recent guidances published by the Chinese stock exchanges and on the *Draft Principles for Corporate Sustainability Disclosure – Basic Principles* to introduce comprehensive and mandatory sustainability reporting standards for issuers, to create more transparency on where financial flows are going and what the social and biodiversity impacts are in China and overseas. Such disclosures need to be audited. Mandatory and audited information disclosure in accordance with unified requirements at the time of issuance and during the lifetime of (green) bonds, especially a unified quantitative description of environmental performance and environmental risks, is an effective way to enhance the transparency of financial flows.

- **Improve due diligence by underwriters**

  Mandate financial institutions to conduct comprehensive ESG due diligence when underwriting or advising on corporate bonds, or when providing other securities services, and to be transparent regarding their due diligence processes.

- **Strengthen sustainability reporting by financial institutions**

  Make the *Guidelines for Financial Institutions Environmental Information Disclosure* mandatory. This document should oblige, not just encourage, financial institutions to disclose environmental information, including the impacts on biodiversity and human rights, in China and overseas, of their underwriting services.

- **Create a grievance mechanism for the financial sector**

  Building on the *Green Finance Guidelines for Banking and Insurance Sectors*, an independent grievance mechanism should be created for the Chinese financial sector. This should offer a channel through which (Chinese and foreign) communities that are impacted by financing, investment or the underwriting of bonds or shares can be heard and find access to remedy.

- **Hold issuers and underwriters accountable**

  The various Chinese regulators should act if issuers or underwriting banks do not meet the requirements in existing regulations and the new regulations proposed above. Fines and sanctions such as capital add-ons, concentration limits, holding board members accountable, or (temporarily) revoking a (banking) licence should be used.

6

Transparency and due diligence regulations for investors in the EU

A significant number of the shares and bonds issued by the 300 traders and producers of forest-risk commodities in the F&F database are owned or managed by EU institutional investors. Compared to investors from other regions, EU investors have invested in a larger number of companies active in forest-risk commodity sectors. EU investors therefore should make sure not to invest in companies whose activities go against the GBF targets. This chapter looks at the transparency and due diligence regulations for EU investors, the buy-side of the capital market, to find options to align such regulations better with the GBF targets.

6.1 Overview of the regulatory landscape for investors in the EU

The regulatory system in the European Union consists of various institutions. Regulatory power is divided over the EU's main decision-making bodies, supported by specialised agencies that advise the main decision-making bodies during the policy development process and oversee implementation once regulations have been adopted.[153]

6.1.1 Main decision-making bodies in the EU

Three European law-making bodies are central to the EU's regulatory system, namely the European Commission, the European Parliament and the Council of the European Union.

- **European Commission**

  Headed by a college of 27 Commissioners, the European Commission is a supranational EU body holding the power of initiative, meaning that the Commission is responsible for planning, preparing and proposing new European legislation.

- **European Parliament**

  In contrast to most parliaments, the European Parliament cannot propose new legislation itself, but it can amend legislative proposals put forward by the Commission. In addition, legislative proposals need to be approved by the European Parliament before they can be adopted, usually on the basis of a simple majority vote. While the European Parliament does not have a right of initiative, it may request the Commission to prepare a legislative proposal if the request is supported by more than 25% of the Members of the European Parliament (MEPs).[154]

- **Council of the European Union**

  The Council of the European Union (the Council) is a co-legislative institution comprising the relevant national ministers of the respective policy areas in question. Like the European Parliament, the Council does not have the right to initiate, but can cast amendments and needs to approve a legislative proposal. Votes in the Council usually require a qualified majority.

The three main decision-making institutions are supported by various specialised agencies that provide expertise during policy-making processes and, after policy adoption, work on implementation measures covering more practical details.

6.1.2 Specialised agencies

In the aftermath of the 2008 financial crisis, the European Union has set up a European System of Financial Supervision (ESFS), built on two pillars combining macro-prudential supervision (through the establishment of the European Systemic Risk Board (ESRB) and micro-prudential supervision, coordinated by three European Supervisory Authorities (ESAs).[155] The focus in this section is on the latter, in particular on micro-prudential supervision of the European investors' market. Two ESA bodies are relevant in this respect, namely:

- **European Securities and Markets Authority (ESMA)**

  The European Securities and Markets Authority (ESMA) is the European authority mandated to ensure the integrity, transparency, efficiency and orderly functioning of EU financial markets, and to ensure that the taking of investment risks is appropriately regulated and supervised within EU financial markets. ESMA is an independent authority accountable to the European institutions (the Commission, Parliament and Council). It also advises the European institutions on issues related to its area of competence. [156]

  Stakeholder consultation on ESMA's policies under development is facilitated by the Securities and Markets Stakeholder Group (SMSG), composed of thirty representatives from academia, civil society and (financial) markets.[157]

- **European Insurance and Occupational Pensions Authority (EIOPA)**

  The European Insurance and Occupational Pensions Authority (EIOPA) is an independent authority mandated to regulate and supervise the EU's insurance and occupational pensions sectors.[158] On issues related to its expertise, EIOPA also provides advice to the European institutions, both on request and on its own initiative.

  Like the SMSG, stakeholder consultation on EIOPA's policies under development is facilitated by stakeholder groups composed of representatives from academia, civil society and (financial) markets.[159]

  EIOPA works closely together with ESMA and the European Banking Authority (EBA) under ESA's umbrella. Given the focus of this chapter on the EU investors' market, we will focus on ESMA and EIOPA.

ESMA's and EIOPA's decisions are made by their respective Boards of Supervisors, comprising the heads of relevant competent authorities of each EU member state. In addition, representatives from the European Commission, the ESRB and the other ESA bodies also participate in the Boards of Supervisors, albeit only as observers without voting powers.[160]

Apart from ensuring market stability and consumer protection, ESMA and EIOPA have a specific mandate to provide guidance on the adoption of sustainability considerations in relevant EU financial legislation and to promote their coherent implementation amongst the member states.[161] As such, ESMA and EIOPA are pivotal in addressing biodiversity risks through EU investment regulations.

6.2 European transparency and due diligence regulations for investors

When talking about European regulations, this chapter refers to the plethora of European laws, which in practice take one of two forms: EU regulations directly apply to (all citizens of) EU member states after their entry into force, whilst EU directives require transposition into national law, leaving member states some leeway in determining how to apply these rules.[162] In March 2018 the European Commission unveiled its strategy for a financial system that supports the EU's climate and sustainable development agenda, better known as the EU Sustainable Finance Action Plan.[163] Several key regulations came out of this action plan which set the regulatory framework on transparency and due diligence for investors in the European Union. They include the EU Taxonomy for Sustainable Activities (the EU Taxonomy), the EU Green Bonds Regulation, and the Sustainable Finance Reporting Directive (SFRD). In the sub-sections below, these key regulations

are outlined, explaining how each one aims to address transparency and due diligence of EU investors with a specific focus on biodiversity-related issues.

6.2.1 EU Taxonomy for Sustainable Activities

In 2020 the European Union adopted the EU Taxonomy Regulation for Sustainable Activities (the EU Taxonomy) within the context of the European Green Deal. By defining criteria for economic activities that are deemed to be environmentally sustainable, the classification system aims to counter greenwashing and to advance sustainable investment decisions.[164] As such, the EU Taxonomy is a system of criteria to determine whether an economic activity is environmentally friendly. Accordingly, the EU Taxonomy only classifies activities, but does not prohibit undertaking, or investing in, economic activities that are not classified as environmentally friendly.

The European Green Deal

Designed as the EU's compass to achieve its sustainability goals, the European Green Deal was launched in 2019 by the Commission as a set of policy initiatives with the overarching aim of making the EU climate neutral by 2050. To reach this target, the EU's net greenhouse emissions should be 55% reduced by 2030 compared to 1990 levels.[165]

Under the Green Deal umbrella, the Commission has also formulated objectives to stimulate a circular economy, just transitions, and biodiversity and ecosystem restoration. The EU Biodiversity Strategy for 2030 is part of this agenda, and includes targets such as establishing the legal protection of at least 30% of the EU's land area and 30% of its seas.[166]

To achieve these goals, the Commission has pledged to mobilise at least EUR 1 trillion in sustainable investment between 2020 and 2030, including "unlocking at least EUR 20 billion a year for nature" as part of the EU 2030 Biodiversity Strategy.[167]

The EU Taxonomy lies at the foundation of various other sustainable finance regulations. In this way the classification system aims to advance sustainable investment decisions by linking other regulations and directives to the EU Taxonomy, with the aim of providing incentives to investors within the EU market to align their activities with the standards formulated in the taxonomy. These incentives could be reputational or based on higher profit margins for sustainable finance products like green bonds.[168]

According to the EU Taxonomy Regulation (Article 9), economic activities qualify as environmentally sustainable if they contribute significantly to one or more of the following environmental objectives:

- Climate change mitigation;
- Climate change adaptation;
- The sustainable use and protection of water and marine resources;
- The transition to a circular economy;
- Pollution prevention and control;
- The protection and restoration of biodiversity and ecosystems.[169]

In addition, the economic activity should:

- do no significant harm (DNSH) to any of the other environmental objectives;
- be *carried out in compliance with minimum safeguards (based on the OECD Guidelines for Multinational Enterprises and the UN Guiding Principles on Business and Human Rights*);[170] and
- comply with technical screening criteria, which are formulated in a separate technical annex.[171]

While recognising interlinkage with other environmental objectives formulated under Article 9, the objective on the protection and restoration of biodiversity and ecosystems is of particular importance for alignment with the GBF targets. Examples of economic activities that would fall

within this category include sustainable land-use management, including sustainable agricultural practices, sustainable forest management or the protection, restoration or conservation of terrestrial, marine and other aquatic ecosystems.[172]

Which economic activities meet the fairly broad environmental objectives of the EU Taxonomy needs to be further detailed in technical screening criteria. Until recently, technical screening criteria were only developed for climate-related activities, meaning that only climate-related activities could be taxonomy-aligned. On 1 January 2024 additional screening criteria for the environmental objectives relating to water and marine resources, circular economy, pollution prevention and biodiversity entered into force.[173] These technical screening criteria clarify that an economic activity can contribute significantly to the environmental objective of "the protection and restoration of biodiversity and ecosystems" in one of the following two ways:

- by directly contributing to the protection of biodiversity and ecosystems through conservation and restoration activities;
- through ecotouristic activities that contribute to conservation or restoration measures, either financially or in-kind, for example by offering educational opportunities on conservation-related topics to raise awareness on appropriate behaviour.[174]

To be considered as directly contributing to the protection of biodiversity and ecosystems, the economic activity has to aid at least one of the following:

- maintaining the good condition of ecosystems, of species, of habitats or of habitats of species;
- re-establishing or restoring ecosystems, habitats or habitats of species towards good condition, including through increasing their area or range.[175]

The term "good condition" is specified as ''a state where the key characteristics of an ecosystem, namely its physical, chemical, compositional, structural and functional state, and its landscape and seascape characteristics, reflect the high level of ecological integrity, stability and resilience necessary to ensure its long-term maintenance''.[176] Adequately to assess and monitor the ecological condition, the activity should include a detailed mapping of the area in scope and be accompanied by a management plan and a guarantee of permanence. The latter can be achieved if the activity takes place in an area classified as protected under international protocols or national laws or through public or private contractual arrangement, although the regulation does not mandate a timespan to guarantee the permanence of conservation or restoration outputs and impacts.

Furthermore, some biodiversity-related activities can be taxonomy aligned through the technical screening criteria related to climate change, pointing towards the interlinkages between the various environmental objectives formulated under the taxonomy framework. For example, the technical screening criteria on climate-change mitigation include criteria on biodiversity conservation for the forestry sector.[177] This means that an activity where the forest management objective is to conserve biological diversity can be classified under the environmental objective of climate-change mitigation. The technical screening criteria mention a few examples in this respect, such as forest management in wildlife reserves and the protection of High Conservation Value areas and key wildlife habitats. Yet the scope of these interlinked, biodiversity-related activities remains limited.

The EU Taxonomy also sets out reporting requirements in Article 8 of the regulation, covering non-financial undertakings, asset managers, credit institutions, investment firms and insurance companies falling under the 2014 Non-Financial Reporting Directive (NFDR), which is now replaced by the Corporate Sustainability Reporting Directive (CSRD, see section 6.3.1). They must disclose how much they invest in economic activities that are taxonomy-aligned, taxonomy-eligible and taxonomy non-eligible activities.[178]

Under the current EU Taxonomy framework, sustainability is defined in rather narrow terms to capture only environmental sustainability criteria. Initially, the Commission's plan was to create a complementary Social Taxonomy framework.[179] In this context, the Platform on Sustainable

Finance prepared an advisory report proposing a structure for a Social Taxonomy within the present EU legislative environment on sustainable finance and sustainable governance.[180] According to these experts, a Social Taxonomy could bring clarity on the definition of social sustainability for investment and drive capital flows to activities that contribute to the realisation of human rights. In spite of this preparatory work, the efforts to develop a Social Taxonomy framework have stalled because of opposition from some member states, despite appeals from civil society as well as the financial sector itself stressing the merits of a Social Taxonomy framework.[181]

6.2.2 EU Green Bonds Regulation

The European Green Bonds Regulation (Regulation (EU) 2023/2631), which will enter into force on 21 December 2024, requires of a bond marketed as a "European Green Bond" that all bond net proceeds are allocated in alignment with the EU Taxonomy.[182] As such, the framework is linked to the EU Taxonomy (see section 6.2.1) and classifies certain bonds as "green" or "environmentally sustainable" to aid raising funds for sustainable investment. Bonds issued as European Green Bond will be subjected to supervision by national competent authorities.

6.2.3 Sustainable Finance Disclosure Regulation

The Sustainable Finance Disclosure Regulation (SFDR) was introduced by the European Commission as a core part of its 2018 Sustainable Finance Action Plan alongside the EU Taxonomy.[183] The regulation requires financial market participants, including certain investors such as insurance companies, investment firms and pension funds, to disclose whether and how ESG risks are integrated in investment policies.

In addition, financial market participants – including investors – need to disclose on their websites where they have considered Principles Adverse Impacts (PAIs) of investment decisions on sustainability factors, including a statement on due diligence policies with respect to those PAIs. This concept aims to better display negative social and environmental impacts which investment can have. Where PAIs have not been considered, a clear reason for not doing so needs to be disclosed.[184]

The SFDR has further provisions regarding investment funds offered by fund managers to the public. It states that funds can be categorised in accordance with differing levels of sustainability, as laid down in Articles 6, 8 and 9 of the Regulation. This categorisation is based on how far the funds take ESG risks into account and if the funds have sustainability objectives. If funds have considered PAIs is not mentioned amongst the defining criteria.

- **Article 6**

  Article 6 requires investors to indicate whether and how ESG risks have been considered in investment decisions. Where ESG risks are not integrated into investment policies, financial institutions need to provide a reason for not doing so and whether they intend to consider such risks in the future.[185] Accordingly, Article 6 funds can include unsustainable investment.

- **Article 8**

  Article 8 spells out the requirements for funds that make investments which promote environmental and social characteristics but which do not have generating positive environmental and social impacts as their main objective.

- **Article 9**

  Article 9 sets requirements for funds which make investment with sustainability their main objective. These investment need to be aligned with the EU Taxonomy and benchmarked against a designated reference index by means of measuring the chosen sustainable investment objective.[186] Subsequently, "Article 9" funds or investment have become

synonymous with the most sustainable financial products in contemporary finance jargon in the EU.

It is important to note that the SFDR only spells out reporting requirements and does not set any due diligence requirements to identify and address ESG risks, including on biodiversity. Notably, the reporting requirements under SFDR are limited as they do not require European investors – apart from managers of investment funds – to disclose in which companies they are actually investing. As such, the extent to which SFDR advances transparency of and on the EU investors market remains minimal. Crucially, the regulation does not even stop fund managers from labelling unsustainable funds as "sustainable".[187]

Therefore, confusion still exists with respect to the definition of "sustainable investment" under the SFDR. The European Commission opts for a discretionary approach that does not set minimum requirements for funds to qualify as "sustainable", but leaves it to fund managers to determine this and to disclose the methodology through which the positive contribution of the fund is established.[188] As ESG-data provider Matter puts it, "this could be seen as a departure from the activity-based logic employed in the EU Taxonomy".[189]

To mitigate this pitfall, ESMA recently published a report listing several recommendations to fund managers on the use of ESG terms in funds' names, including:

- Funds using sustainability-related terms should meet an 80% threshold linked to the proportion of investment used to meet E&S characteristics or sustainable investing objectives of the fund;
- They should exclude companies involved with the exploration, mining, extraction, distribution or refining of hard coal and lignite (>1% revenue), oil fuels (>10% revenues), gaseous fuels (>50% revenue) or electricity generation with a GHG intensity of more than 100 g CO_2-eq/kWh (>50% revenue).[190]

6.3 Corporate reporting and due diligence regulations

In addition to the transparency and due diligence regulations covering European investors directly, the EU has developed corporate reporting and due diligence regulations. While these regulations were not developed specifically for the financial sector, they could be expanded to cover some financial institutions, including investors. Three regulations are relevant in this respect: the Corporate Sustainability Reporting Directive (CSRD) and associated EU Sustainability Reporting Standards, the Regulation on Deforestation-free products (EUDR) and the European Corporate Sustainability Due Diligence Directive (CSDDD).

6.3.1 EU Corporate Sustainability Reporting Directive (CSRD)

The Corporate Sustainability Reporting Directive (CSRD) was introduced in 2022 and obliges corporations and large financial institutions on the EU market to provide sustainability-related information. The Directive is relevant to investors in two ways. First, it lays direct requirements on large European investment firms with respect to sustainability-related information. Second, the CSRD is of importance because investors rely on information published by the companies they invest in to comply with the reporting requirements under the SFDR (section 6.2.3) and with the due diligence requirements of the CSDDD (section 6.3.3).

The CSRD builds on the 2014 Non-Financial Reporting Directive (NFDR),[191] which placed some very broadly defined environmental and social reporting requirements on large listed (500+ employees) companies, also including large institutional investors. With the CSRD, the European Union sets more specific sustainability-related reporting requirements, which are developed by the European Financial Reporting Advisory Group (EFRAG) in the European Sustainability Reporting Standards (ESRS), and formally adopted by the European Commission.

The ESRS differentiate between three categories of reporting standards:[192]

- **Cross-cutting standards**

  The first set of ESRS entered into force on 1 January 2024 and covers sector-agnostic standards. Reporting according to these ESRS applies to companies that were already subjected to the preceding NFRD (that is, large listed companies, including large institutional investors, with more than 500 employees) from reporting year 2024 onwards (with the first reports expected in 2025). Other large companies, including large non-EU listed companies, will have to start reporting on the ESRS in 2026 over financial year 2025, while listed small and medium-sized enterprises (SMEs) will have to report in 2027 over financial year 2026, although SMEs have the option to opt out of the reporting requirements for an additional two years.[193]

  The cross-cutting standards are divided into two categories, one spelling out general requirements to be applied when reporting according to ESRS. As such, these general requirements, also referred to as ESRS 1, do not set specific reporting requirements.[194] Such cross-cutting general disclosures are spelled out in ESRS 2, which sets reporting requirements for companies irrespective of the economic sectors in which they operate or the ESG risks and opportunities that are most material to their line of business.[195]

- **Topical standards**

  The topical standards focus on environmental (ESRS E1- E4), social (ESRS S1-S4) and governance (ESRS G1) related disclosures. With respect to biodiversity, the most important topical standard is ESRS E4 Biodiversity and Ecosystems.[196]

- **Sector-specific standards**

  The sector-specific standards are yet to be developed and will cover oil and gas, coal and mining, road transport, agriculture, farming and fisheries, motor vehicles, energy production and utilities, food and beverages, textiles, accessories, footwear and jewellery.[197]

The disclosure requirements under ESRS 2, topical ESRS (including ESRS E4 on biodiversity and ecosystems), and sector-specific ESRS are structured into four areas for reporting:

- Governance
- Strategy
- Impact, risks and opportunities management, and
- Metrics and targets

With respect to biodiversity-related risks, this means that companies are required, under ESRS E4, to disclose what biodiversity and ecosystems-related risks are most material to their business operations,. The disclosure must comprise a double materiality approach, meaning that corporations report both on how biodiversity and ecosystem-related risks affect them, and how their operations and activities affect biodiversity and ecosystems. Identification of these risks and opportunities needs to be based on scenarios or forecasts that are likely to materialise and the selection of specific scenarios/forecasts needs to be justified, including whether they are informed by authoritative bodies such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES).[198]

Additionally, companies and financial undertakings in scope need to illustrate how biodiversity and ecosystems-related considerations are integrated into their company strategies, business models and risk-management systems. Specifically, they are required to disclose their most material biodiversity and ecosystem risks, formulate concomitant metrics and targets and disclose whether they are GBF-aligned. In doing so, companies and financial institutions may also disclose a biodiversity transition plan, but this is not mandated.[199] Importantly, the disclosures under ESRS are subject to assurance.[200]

Notably, the disclosure requirements under ESRS E4 are subject to a two-year phase-in period where financial undertakings with 750 or fewer employees do not have to report on biodiversity and ecosystems-related risks. Additionally, financial undertakings do not have to report on their

anticipated financial effects from biodiversity and ecosystem-related impacts, risks and opportunities for the first year of reporting. And, furthermore, for the first three years of reporting, they may choose to report qualitatively on these anticipated effects rather than using quantitative indicators.[201]

In addition to ESRS requirements, financial institutions in scope of the CSRD are also required to report under the EU Taxonomy Regulation (section 6.2.1).[202]

6.3.2 European Regulation on Deforestation-free products (EUDR)

In 2023, the European Regulation on Deforestation-free products (EUDR) came into force, prohibiting the import of, and trade in, products contributing to deforestation or forest degradation worldwide. The regulation specifically focuses on a number of forest-risk commodities: cattle, cocoa, coffee, palm oil, rubber, soy and wood, as well as products in which these commodities have been used as input. Not all forest-risk commodities are covered: notably mining products are not included in the EUDR scope. The regulation also does not apply to products originating from biomes that do not fall under the EU definition of "forests", like the Cerrado (see section 6.4.1).

Specifically, the EUDR only allows the listed forest-risk commodities on the EU market if:

- They are deforestation-free. In this context, key definitions include:
  - Forests: "land spanning more than 0.5 hectares with trees higher than five metres and a canopy cover of more than 10%, or trees able to reach those thresholds in situ, excluding land that is predominantly under agricultural or urban land use";
  - Deforestation: "the conversion of forest to agricultural use, whether human-induced or not";
  - Forest degradation: "structural changes to forest cover, taking the form of the conversion of: (a) primary forests or naturally regenerating forests into plantation forests or into other wooded land; or (b) primary forests into planted forests".[203]
- They are produced in accordance with the relevant legislation of the country of production. In this context examples of relevant legislation of the country of production include laws on environmental protection, land-use rights, and human and labour rights. [204]
- They are covered by a due diligence statement, entailing:
  - The collection of information, data and documents on the type of product, its quantity, country and, if relevant, region of production, and contact information of suppliers. The information needs to be verifiable and kept for five years by companies after a relevant commodity has been imported or exported;[205]
  - Conduct a risk assessment, taking into account (amongst other things) the country of production and complexity of the supply chain, in particular difficulties in connecting relevant products to the plots of land where they were produced;[206]
  - Mitigate identified risks, for example by collecting additional information, carrying out independent audits, or building capacity of smallholders in the supply chain through additional support.[207]

Compliance checks are carried out by national authorities periodically. In the case of non-compliance, companies are fined proportionate to the environmental damage and value of the commodities or products, the amount of which can be up to 4% of the company's EU revenue. Additionally, companies may face a temporary prohibition from trading any of the commodities and products in scope of the regulation in cases of serious or repeated infringements.[208]

The financial sector is currently not covered by the EUDR and so the regulation does not impose any transparency or due diligence requirements on financial institutions. The EUDR does add a provision stating that possible inclusion of the financial sector shall be evaluated by the Commission "no later than 30 June 2024".[209] At the time of writing, however, no communications on this evaluation have been published by the Commission.

6.3.3 EU Corporate Sustainability Due Diligence Directive (EU CSDDD)

On 24 May 2024 the European Council formally adopted the Corporate Sustainability Due Diligence Directive, which will oblige large corporations to prevent, mitigate and remedy human rights abuses. After its publication in the *Official Journal of the European Union*, member states will have two years from entry into force to transpose its requirements into national law.[210]

The directive also covers financial institutions, including institutional investors, but these are only subjected to due diligence requirements with respect to their upstream value chain, not with regard to financial services. As such, the directive has little direct implications for EU investors, although investment in non-compliant companies may carry additional reputational risks.

As with EUDR, the directive will be reviewed by the Commission to determine whether the due diligence requirements should be extended to also cover financial services in the future. This review is to take place "no later than 2 years after the date of entry into force" and if it draws the conclusion that financial services should indeed be covered, it should be accompanied by a new legislative proposal.[211]

6.4 Case: Bunge

6.4.1 Description of the case

Bunge is one of the world's largest commodity traders. This US-headquartered food commodities producer, processor and trader is active in trading maize, palm oil, soy, sugar cane and biofuels and has an annual revenue of USD 67 billion.[212]

Bunge is Brazil's largest agribusiness exporter, the leading national soybean processor and is considered the soy trader with the greatest deforestation risk, through its supply-chain sourcing from the Brazilian Amazon[213] and the extremely biodiverse but less-well-known Cerrado region. The Cerrado, also known as "the birthplace of waters" because of its critical role in providing water to much of Brazil, including the Amazon, is also the region from which Bunge sources 45% of its Brazilian soy supply.[214]

Bunge is one of the traders with silos in four municipalities with the highest absolute deforestation rates in all of the Cerrado and the greatest increase in deforestation rates.[215] Estimated by monitoring how much deforestation occurred within 50 km of its silo network in Brazil, Bunge's deforestation risk amounts to 87,866 hectares in 2021.[216] The company even expanded its silo capacity in high-risk municipalities by 115,000 tons between 2019 and 2021, which will further drive demand and with that drive deforestation as well.[217]

Bunge itself claims that "over 96%" of its monitored Brazil soybean volumes are "deforestation and conversion-free" and the company made a public commitment to achieve deforestation-free and native vegetation conversion-free supply chains by 2025.[218] However, these statements are at odds with reality on the ground. Between 2021 and 2023,Bunge has been linked to the destruction of almost 26,000 ha of forests in the Cerrado.[219]

The Cerrado savanna

The Cerrado savanna, which lies mostly in Brazil, is the world's most biodiverse savanna, home to 5% of the planet's animals and plants.

The Cerrado is a habitat for about 200 species of mammals, 860 species of birds, 180 species of reptiles, 150 species of amphibians, 1,200 species of fish, and 90 million species of insects. Giant anteaters and armadillos are among its 60 vulnerable animal species, 12 of which are critically endangered. Of its more than 11,000 plant species, nearly half are found nowhere else on Earth, and local communities rely on many of them for food, medicine and handicrafts.

The region also locks up a massive amount of carbon, as its small trees have deep root systems. About 70% of the biomass of this "upside-down forest" is underground. The Cerrado is also extremely important as a source of water. Of 12 major hydrological regions in Brazil, six begin in the Cerrado, including the Pantanal, the world's largest wetland.[220]

For all of these reasons, deforestation of the Cerrado is an unfolding tragedy. More than 1.11 million hectares (2.74 million acres) of Cerrado forest were destroyed in 2023, an increase of 68% compared to the previous year.[221] These losses represent almost two-thirds of the deforestation suffered by all of Brazil and about 2.4 times the destruction recorded in the Amazon – the first time that deforestation in the Cerrado has outstripped that in the Amazon.

In addition, the company is linked to land-grabbing practices that violate the rights of indigenous peoples and local communities. For example, a 2022 report revealed that Bunge is indirectly sourcing soy from Brasília do Sul, which operates a 9,700-ha soy farm on ancestral land stolen from the Guarani Kaiowá. The community suffers a long history of violence, including the killing of a prominent leader, Marcos Verón, in 2003 by Brasilia do Sul employees while he was defending indigenous lands that were alleged to have been stolen by the company.[222] Bunge denies that it is sourcing from Brasília do Sul.[223]

Bunge has not only been linked to deforestation in Brazil. In December 2022 the Environmental Investigation Agency listed Bunge among traders purchasing palm oil from two Indonesian mills, which it said had sourced palm fruit until earlier that year from two plantations in Kalimantan and Sumatra that had engaged in deforestation. These plantations were respectively said to have been responsible for 3,750 ha of deforestation between 2020 and mid-2022 (with the mill supplying Bunge reportedly continuing to source from the plantation until August 2022) and 1,010 ha between 2021 and 2022. 350 ha of this deforestation occurred in 2021, before this mill reportedly ceased to source from the plantation early in 2022.[224] Bunge claims these two mills "have been blocked as far back as 2018".[225]

In 2024, among Bunge's top EU-based forest-risk investors were Crédit Agricole (USD 24 million), Allianz (USD 12 million) and Intesa Sanpaolo (USD 8 million).[226]

6.4.2 How EU regulations deal with this case

Assessment of how the present transparency and due diligence regulations for investors in the European Union apply to this case, leads to the following observations:

- Based on the CSRD, some EU investors are required to report on their taxonomy-aligned and taxonomy-eligible investment. However, as the EU Sustainable Finance Taxonomy framework does not classify unsustainable economic activities, it does not create transparency on investment in destructive economic activities like those carried out by Bunge in the Brazilian Cerrado. Such one-sided reporting requirements risk facilitating greenwashing rather than creating effective transparency.
- EU regulations do not prevent fund managers and other investors from investing in Bunge. The EU Sustainable Finance Taxonomy does not have technical screening criteria (TSC) yet for the sector in which Bunge is active, and investment funds are not required to align with the Taxonomy. Even funds labelled as "sustainable" and qualified as Article 8 or Article 9 funds for the SFDR can therefore still invest in Bunge.
- While importing Bunge's deforestation-linked commodities into the EU market is illegal under EUDR, EU regulations do not prohibit EU investors acquiring and trading in Bunge shares and bonds.
- The CSDDD puts due diligence requirements on a company like Bunge (which also has a large presence in the EU) and opens opportunities for communities and civil society organisations to start civil liability cases against Bunge for not meeting the CSDD requirements. But investors

are not covered by the CSDDD, which means that they cannot be held liable for investing in Bunge.

6.5 Possible improvements of relevant regulations in the European Union

6.5.1 Assessment of the present European regulations

This chapter has described and summarised the financial regulations in the European Union which could potentially be relevant to aligning financing flows from investors with the targets of the Global Biodiversity Framework (GBF). Table 10 assesses how far these regulations are aligned with three essential GBF targets, based on the methodology described in Appendix 1.

Table 10 Assessment of the present European regulations against GBF targets

Assessment criteria		Colour score	Justification
1	Financial regulations do not allow investment in companies involved in conversion of natural landscapes.	Light red	EU financial regulations do not prohibit investment in companies involved in the conversion of natural landscapes. The SFDR expects such companies not be included in Articles 8 and 9 investment funds, but leaves it to fund managers how to filter out these companies.
2	Financial regulations expect financial institutions to stimulate a just transition in the Agriculture, Aquaculture, Fisheries and Forestry sectors which supports the rights of workers, peasants, fisher folk, indigenous peoples, traditional and local communities.	Light red	EU financial regulations encourage financial institutions to stimulate a just transition in relevant sectors through the EU Taxonomy framework and the related Green Bonds Regulation. But these regulations fall short on sector-specific targets and do not cover social criteria related to the rights of workers, peasants, fisher folk, indigenous peoples, traditional and local communities. Importantly, SFDR's definitional ambiguity with respect to "sustainable investment" curbs the ability of the EU regulatory framework to stimulate sectoral just transitions.
3	Financial regulations require transparency of all investment flows and full disclosure of biodiversity and social impacts of these flows.	Yellow	EU financial regulations do require investment funds to be fully transparent on the companies they invest in, but this does not apply to portfolios of pension funds and other investors. The EU Taxonomy, SFDR, CSRD and the related reporting standard ESRS lay down relevant requirements for financial institutions to disclose biodiversity and social impacts of investment flows on the portfolio level. However, ESRS still lacks sectoral standards and not all investors are in scope.

6.5.2 Recommendations for European legislators and financial sector regulators

This section formulates some recommendations on how the financial regulations in the European Union could be improved to limit investment in corporate activities leading to (tropical) deforestation and biodiversity loss.

- **EU Taxonomy Regulation and related regulations (EU Green Bonds)**

  The EU Taxonomy aims to incentivise nature-positive investment, but as such it is only a system of criteria to determine whether an economic activity is environmentally friendly. The incentives should come from other regulations linked to the EU Taxonomy, but up till now the positive incentives have been very weak and negative incentives to limit the financing of, and investment in, corporate activities leading to (tropical) deforestation and biodiversity loss are absent. The Platform on Sustainable Finance talks in this respect of the "binary classification" problem: the taxonomy may identify economic activities with a significant positive impact on

sustainability, but it does not classify harmful economic activities.[227] Developing a separate taxonomy (or broadening the present taxonomy) to classify economic activities with detrimental environmental impacts, including on biodiversity and ecosystems, would incentivise transparency and accountability of EU investors with respect to their investment decisions and create further incentives to limit the financing of corporate activities leading to (tropical) deforestation and biodiversity loss. In this respect, the EU Taxonomy is surpassed by more recent taxonomies developed in other jurisdictions.

Additionally worrying is that the technical screening criteria for biodiversity allow for educational activities to be classified as having a "significant contribution" to the restoration and conservation of biodiversity and ecosystems, watering down the taxonomy's real-world, direct impacts on restoration and conservation. Another shortcoming is that where proceedings are allocated to real-world economic activities, their longitudinal effects are not adequately safeguarded, as the requirements for a "guarantee of permanence" do not mandate specific timelines. Bearing in mind that biodiversity and ecosystem restoration are a matter of decades rather than years, this is a serious pitfall with respect to the ability of the taxonomy and related regulations to contribute meaningfully to the GBF targets. [228]

For many sectors, technical screening criteria are still missing. And for the sectors for which they are developed, industry lobbying has sometimes led to decisions which go against scientific evidence.[229] Developing technical screening criteria for all sectors with high biodiversity impacts needs to get priority, while maintaining the requirement in the taxonomy regulation to base the criteria on "conclusive scientific evidence and the precautionary principle".[230]

Finally, social aspects related to protecting biodiversity acknowledged by the GBF – including protecting the rights of workers and those of indigenous peoples, traditional and local communities – are not included in the EU Taxonomy. Developing a separate EU Social Taxonomy, or integrating these aspects into the present EU Taxonomy, would therefore be important. The report of the Platform on Sustainable Finance on the Social Taxonomy is a good starting point.[231]

- **Sustainable Finance Disclosure Regulation (SFDR)**

  A strong point of the SFDR is that it requires investors not only to report on ESG risks of sustainability issues (the financial impacts for their own portfolios), but also on the so-called Principles Adverse Impacts (PAIs) of their investment on society and the environment. This forces investors to evaluate sustainability factors from a double materiality perspective, considering not only their own financial risks but also the (potential) detrimental impacts on society and the environment. However, if not complemented by a requirement to be transparent on which companies they actually invest in and how the impacts of these companies are assessed, the impact assessments made by investors can stay very high-level as civil society and other stakeholders cannot assess how they assess companies with high deforestation risks such as Bunge (see section 6.4).

  Another crucial pitfall of the Sustainable Finance Disclosure Regulation (SFDR) is that fund managers can still label funds containing unsustainable investment as sustainable. To prevent such greenwashing in the future, the Commission should transpose and build on the recommendations on the use of ESG-related terminology as formulated by ESMA into formal requirements. These labelling recommendations by ESMA will address the definition shortcoming of the SFDR to some extent, but ESMA's present exclusion list is solely focused on fossil fuels and does not consider forest-risk sectors sufficiently. Therefore, the formal requirements should be expanded on the companies to be excluded by funds labelled as sustainable also to cover the most critical forest-risk sectors.

  Additionally, biodiversity-related prerequisites for Article 9 funds should not only be grounded in negative formulations (i.e., Do No Significant Harm). There should be minimum criteria to

determine the positive effects of Article 9 funds on conservation and restoration objectives. Alignment with the EU Taxonomy framework would be a cogent advancement.

Enforcing such formal requirements also depends upon strengthening regulatory supervision to ensure that funds categorised by investment managers as Articles 8 and 9 do not comprise unsustainable investment, as they do to date.[232] It would also be good to develop an ambitious timeline to phase out all Article 6 and 8 funds, to allow only Article 9 funds to be sold to investors.

- **Corporate Sustainability Reporting Directive (CSRD)**

  With respect to strengthening transparency, the recently developed EU sustainability reporting requirements comprise significant steps in the right direction. In particular, ESRS E4 on biodiversity and ecosystems directly contributes to Targets 14 and 15 of the GBF as it requires companies – including large institutional investors – to integrate biodiversity targets into business strategies and risk management.

  However, while investors have to justify the selection of the forecasts or scenarios they use to identify biodiversity-related risks, ESRS E4 does not detail any criteria for scenario-based risk-assessment modelling. To ensure that modelling approaches adequately reflect ecosystemic realities, including the effects of environmental tipping points, scenario requirements should move beyond conventional, linear forecast models that are traditionally used in the financial sector to assess climate risks.[233] ESRS criteria should also be more fully detailed for different economic sectors.

  Additionally, while CSRD encourages companies and financial institutions, including large institutional investors, to develop a transition plan in line with GBF targets, those plans are not mandatory.To strengthen the CSRD's alignment with the targets of the GBF, EU regulators should amend the CSRD and require companies and financial institutions, including a much broader group of investors, to develop biodiversity transition plans in line with GBF targets.

- **European Regulation on Deforestation-free products (EUDR)**

  With respect to the European Regulation on Deforestation-free products (EUDR), it is a critical shortcoming that the regulation does not place any responsibility on investors and other financial institutions. The fact that EU investors are allowed to invest in the production of commodities which are prohibited in the EU market illustrates a critical gap in the EU's transparency and due diligence regulatory framework. As such, the outcomes of the impact assessment study as envisaged in the EUDR review clause, which is ongoing at the moment of writing this report, are eagerly awaited. Based on these outcomes, the European Commission should present a regulatory proposal for the expansion of due diligence obligations to the financial sector.

- **EU Corporate Sustainability Due Diligence Directive (EU CSDDD)**

  Like the EUDR, a critical shortcoming of the EU Corporate Sustainability Due Diligence Directive (EU CSDDD) is that the directive does not cover investment directly. As mentioned, in two years' time the Commission will evaluate whether the due diligence requirements under the CSDDD should be extended to also cover financial services. It is pivotal that the directive be extended to also cover financial services. The French Duty of Vigilance Act, which entered into force in 2017 and already covers financial services, serves as a precedent in this respect.[234]

- **Hold financial institutions accountable**

  ESMA and criminal authorities should act if investors do not meet the requirements in existing regulations and the new regulations proposed above. Fines and sanctions such as holding board members accountable, (temporarily) revoking a licence, or not allowing market access for certain financial products should be used.

7

Transparency and due diligence regulations for investors in the United States

A significant share of the shares and bonds issued by the 300 traders and producers of forest-risk commodities in the F&F database are owned or managed by institutional investors from the United States. This high proportion of US investment, spread over a large number of companies active in forest-risk commodity sectors, means that government policies that improve disclosure and strengthen screening criteria for investment are particularly important interventions to undertake to ensure compliance of the US with GBF targets. This chapter looks at the transparency and due diligence regulations for investors in the United States, the buy-side of the capital market, to find options to align such regulations better with the GBF targets.

7.1 Overview of the regulatory landscape for investors in the United States

The regulatory authorities for the securities markets in the United States are the following:

- **The Securities and Exchange Commission (SEC)**: The SEC oversees securities exchanges, securities brokers and dealers, investment advisors and mutual funds at the national level. Investment banks are also regulated by the SEC. While there are many other regulators, the SEC plays the most important role in the regulation of institutional investors.
- **State regulators**: Each American state has its own securities regulator, which enforces laws that cover the same activities the SEC regulates but are limited to securities sold or persons who sell them within each state. In addition, the states are also in charge of the regulation of (investment by) insurance companies.

In addition, the Financial Industry Regulatory Authority (FINRA) is a non-governmental, self-regulatory organisation that supervises and regulates the conduct of broker dealers. Its regulations related to climate and environmental issues mainly focus on the sell-side of the capital markets.

It is important to highlight that the US is not part of the Convention on Biological Diversity (CBD), an international treaty aimed at conserving biological diversity, which could lead to different regulatory approaches compared with other countries that are part of the CBD.

Apart from the regulations issued by these regulators, there are also other laws which set transparency and due diligence requirements for investors. The following sections will discuss the regulations and laws that are relevant.

7.2 SEC regulations

7.2.1 Transparency regulations for investors

Based on a 1975 amendment to the Securities Exchange act of 1934, all institutional investment managers in the United States that have more than USD 100 million or more under management must report all their holdings of shares and bonds in a so-called Form 13F. These filings have to be submitted electronically to the SEC's EDGAR database, which can be searched by everyone.[235] Institutional investors are not required to publish any ESG data.

7.2.2 Transparency regulations for issuers

The following transparency regulations apply to companies issuing shares and bonds in the United States:

- **Financial transparency regulations**

  Based on the Securities Act of 1933, SEC regulations include extensive requirements for companies that are issuing shares and bonds on the stock exchange to be transparent on their financial situation and risks, in prospectuses, quarterly and annual reports and separate stock exchange filings. Since the 1990s, these filings have to be submitted electronically to the SEC's EDGAR database, which can be searched by everyone.[236]

  However, Rule 144A of the Securities Act of 1933, originally released by the SEC in 1990, exempts issuers from public filing requirements if their securities are sold to Qualified Institutional Buyers: investors that own and invest on a discretionary basis at least USD 100 million in securities. For these private placements, the issuers hardly have reporting requirements. After the Sarbanes-Oxley Act was adopted in 2002, which led to a number of new SEC regulations for companies seeking to issue public offerings, the popularity of Rule 144A private placements increased and these were exempted from the new regulations.[237]

- **Enhancement and standardisation of climate-related disclosures for investors**

  Recently, the SEC has taken various initiatives to stimulate issuers to be more transparent also on their exposure to climate and other ESG risks. This is indirectly beneficial for the transparency and due diligence of investors, as it helps investors to identify biodiversity-related risks in their portfolios. However, these initiatives only concern the potential losses that issuers may face in the event of ESG risks materialising, and not the impacts that issuers may have on ESG issues (double materiality).

  With this objective in mind, in 2021 the SEC created the Climate and ESG Task Force to detect ESG-related misconduct in reporting across registrants. The initial focus was to identify any material gaps or misstatements in issuers' disclosure of climate risks under existing rules. The task force additionally examined disclosure and compliance matters concerning the ESG strategies of investment advisers and funds.[238]

  In March 2024 the SEC published *Final Rules on the Enhancement and Standardisation of Climate-Related Disclosures for Investors*.[239] Immediately after the *Rules on Climate-Related Disclosures* were published by the SEC, they were put on hold by a US Appeals Court.[240] At the moment of writing this report, the juridical proceedings have not yet finished and the *Rules* have not come into effect.[241]

  If the rules will come into effect, they will require that climate risk disclosures be included in a company's SEC filings, such as annual reports and registration statements, rather than on company websites. These rules allow investors to take better-informed decisions regarding investing in public companies exposed to climate-related risks. This is defined as the actual or potential negative impacts of climate-related conditions and events, which includes physical risks and risks related to the transition to a less fossil fuel-dependent economy, on a company's consolidated financial statements, business operations or value chains.

  Physical risks include the risks created to a company's operations or the operations in its value chain by both acute, short-term extreme weather events such as hurricanes or floods, and by chronic risks, such as long-term weather patterns and related effects such as rising sea levels or sustained higher temperatures that may create a corresponding increase in exposure to wildfires. The SEC defines ''value chain'' to include:

  - upstream activities: activities by a party other than the company itself that relate to the initial stages of a company's production of a good or service; and

- downstream activities: activities by a party other than the company itself that relate to processing materials into a finished product and delivering it, or providing a service, to the end user.

The SEC introduces this definition with the aim of capturing the full extent of a company's potential exposure to climate-related risks.[242]

The SEC *Rules on Climate-Related Disclosures* focus only on the risks of climate-related conditions and events on the company itself and do not consider the impacts of the company on climate, environment and society (the "double materiality" principle). The rules only requires scope 1 and 2 disclosure for larger companies, if material. In an initial proposal for this rule, the SEC considered requiring companies to disclose Scope 3 greenhouse gas emissions (GHG) in their supply chains. Scope 3 emissions are the most significant source of GHGs from the forest, agriculture and land sector, largely due to land conversion and deforestation,[243] as well as methane emissions from livestock production.[244] Scope 3 emissions are also the most significant source of GHGs from financial institutions as the portfolio lending and investing of a financial institution and the real economy impact of that financing are considered Scope 3 activities. According to the SEC, this requirement was removed from the rule because of the large number of comments received regarding the costs of compliance, as well as the consistency and reliability of Scope 3 data.[245]

- **Californian sustainability reporting requirements**

While at national level, regulations regarding sustainability reporting are fairly limited and challenged in court, some states are moving further and faster. In September 2023 California approved the Climate Accountability Package, a pair of bills aimed at creating sustainability reporting requirements. The bills require reporting standards far beyond the SEC standards.

Senate Bill 253 requires companies who do business in California and have an excess of USD 1 billion in revenue, defined as "reporting entities", to submit an annual report for Scope 1 and Scope 2 starting in 2026. Scope 3 reporting will begin in 2027. The State Air Resources Board must create the details of the reporting requirement by 1 January 2025.

Senate Bill 261 requires companies who do business in California and have an excess of USD 500 million in revenue, defined as "covered entities", to submit a biennial climate-related financial risk report. The report should be based on the work of the Task Force on Climate-Related Financial Disclosures, established by the Financial Stability Board.[246]

In July 2024 the Governor of California, Gavin Newson, in July 2024 proposed to delay the implementation of the laws by two years.[247] But this proposal was overruled by the Californian Senate and the original planning remains valid.[248]

7.2.3 Regulations preventing greenwashing

In 2023 the SEC modified the Investment Company Act ''Names Rules'', which addresses fund names that are likely to mislead investors about a fund's investment and risks, to prevent greenwashing.[249] Before this modification, the rule already required registered investment funds whose names suggest a focus on a particular type of investment (e.g. a sectoral or geographical focus) to invest at least 80% of the value of their assets in investments which are aligned with this focus.

However, funds focusing on ESG or sustainability were not covered by this requirement. With the amendments, funds with particular characteristics or with a thematic investment focus, such as the incorporation of one or more ESG factors, are now included in the regulation. To check that the fund is investing at least 80% of its assets in line with its investment focus, the regulation sets record-keeping requirements. This implies that the fund is required to maintain written documentation that includes: [250]

- The fund's record of which assets are invested in accordance with the investment focus the fund's name suggests and the basis for including each such asset in the 80% basket;
- The value of the fund's 80% basket, as a percentage of the value of the fund's total assets;
- The reasons for any departures from the 80% investment policy;
- The dates that the fund identifies any departures from the 80% investment policy; and
- Any notice sent to the fund's shareholders pursuant to the rule.

The records under this requirement must be maintained for at least six years following the creation of each required record. Another requirement is that funds must define the terms used in the fund's name, including the criteria the fund uses to select the investment the term describes in the fund's prospectus. Additionally, funds are required to report in Form N-PORT the percentage of the fund's assets invested according to the investment focus implied by the fund's name, for each portfolio investment, whether it is included in the fund's calculation of assets in the fund's 80% basket, and the definition of the terms used in the fund's name.

However, for funds that include sustainability terms in their names, this regulation does not set a requirement that the assets they invest in must align with any sustainability standard or taxonomy. It is up to the fund manager to define which assets align with the fund's investment focus and name.

7.3 Other relevant regulations

While they do not specifically address financial markets, a number of legislative initiatives that address forest-related biodiversity impacts are worth mentioning.

7.3.1 Lacey Act

On 22 May 2008, the US Congress passed a ground-breaking law banning imports of illegally sourced plants and their products, including timber and wood products. The new law is an amendment to a 100-year-old statute, named the Lacey Act after the Congressman who first championed it.

To address illegal logging and other illegal plant trade, the Lacey Act now does three main things:

- Prohibits all trade in plant and plant products (e.g., furniture, paper or lumber) that are illegally sourced from any US state or foreign country.
- Requires importers to declare the country of origin of harvest and species name of all plants contained in their products.
- Establishes penalties for violation of the Act, including forfeiture of goods and vessels, fines and jail time.[251]

7.3.2 FOREST Act

In December 2023 the Congress of the United States introduced the Fostering Overseas Rule of law and Environmentally Sound Trade Act of 2021, known also as the FOREST Act of 2021. Its main purpose is to prohibit the import of products made wholly or in part of the following commodities if these are produced on land where illegal deforestation took place:

- Cattle
- Cocoa
- Palm oil
- Rubber
- Soybeans
- Wood pulp

Furthermore, it requires goods entering the United States to be subject to supply-chain traceability, to reduce the risk of association with illegal deforestation. In addition, the FOREST act aims to

enhance US cooperation with countries that lack adequate and effective protections against illegal deforestation.[252]

The law would also add illegal deforestation as one of the unlawful activities listed in the anti-money laundering statute. A report by the Financial Accountability and Corporate Transparency (FACT) Coalition, published in October 2023, said that "critical gaps" in the US anti-money-laundering system are vulnerable to exploitation by criminal groups, including those behind the destruction of the Amazon, the world's largest tropical rainforest.[253]

Although the Act can be considered to give guidance to investors as well, it does not prohibit investment in the producers of the mentioned commodities if they are produced on land where illegal deforestation took place. At the time of writing this report, the FOREST Act has not yet been signed into law. If it is signed into law, it will complement the Lacey Act (see section 7.3.1).

7.3.3 TREES Act

The proposed New York Tropical Rainforest Economic & Environmental Sustainability (TREES) Act aims to prevent the New York State government procurement from contributing to tropical deforestation and degradation by tightening an existing state ban on the use of tropical hardwoods for government projects and creating a new statute requiring state contractors who deal in forest-risk commodities to certify that their products don't drive deforestation. New York would be the first state in the United States to implement such a policy.[254]

A predecessor to the TREES Act was introduced and approved by both houses of the New York State legislature before being vetoed by the New York Governor in 2023. However, the TREES Act sponsors have worked hard to address pain points in the previous bill language.

7.4 Case: Cargill

7.4.1 Description of the case

> *"Your executives tell us that Cargill is a good company, that they have pledged to end the destruction of nature. But this is not our experience. Despite your many commitments to end deforestation, the destruction has increased. We have lived here in the heart of the Amazon for over 4,000 years. But now our world hangs by a thread."*
>
> Letter of Beka Saw Munduruku to Cargill, 2023

Beka Saw Munduruku is a 21-year-old indigenous activist from Sawre Muybu, an Amazonian village in Brazil. She travelled more than 6,400 kilometres in October 2023 to hand over a letter to the Cargill family in Minneapolis. The letter called on the owners to stop destroying the Amazon rainforest and its people.[255] The letter further explained that Beka and her community, while defending their lands, had faced violence and intimidation. Beka's action followed decades of human rights abuses and deforestation in the supply chain of America's largest privately held company.[256]

Cargill is one of the world's largest agricultural companies, with annual revenues of up to USD 177 billion (2023). The company is a major processor of livestock, with an annual estimated slaughter capacity of 604 million chickens and 8 million cows. Cargill also processes and trades soy, palm oil, rapeseed, maize, wheat, barley, sorghum, cocoa and cotton and yearly produces around 19.6 billion tonnes of animal feed.[257] The company operates in 70 countries, including those with the largest areas of tropical forests, including Brazil, Indonesia, Peru and Colombia.[258] Cargill is privately owned and has many members of the family as shareholders and executives in the company.[259]

Cargill is a major exporter of soy from Brazil and, for decades, has been linked to numerous cases of deforestation and human rights violations in its supply chain, with a record of backtracking on its policy promises. In 2018 the company was fined for sourcing 600 tonnes of soy from illegally

deforested land in the Cerrado.[260] Between 2019 and 2022, 35 Brazilian deforestation cases were potentially linked to Cargill, with the company confirming that it had trading links to 14 of these cases.[261] In 2022 it was reported that eight farms supplying Cargill were responsible for 24,719 deforested hectares, of which 613 ha were considered to be illegal clearance. Cargill acknowledged the supplier relationships but stated that they "buy from leased areas of those related companies, from lessors who are in compliance with the Brazilian laws and Cargill public commitments." [262]

By the end of 2023 the Realtime Deforestation Monitoring Reports had identified 66,914 ha of deforestation since the start of 2021 on Amazon and Cerrado properties of suppliers with potential links to Cargill.[263] Cargill's estimated deforestation risk linked to individual traders by looking at how much deforestation occurred specifically within 50 km of its silo network in Brazil amounts up to 63,701 hectares.[264] In November 2023 Cargill announced an accelerated commitment to eliminate deforestation and land conversion from its direct and indirect supply chain of key row crops in Brazil, Argentina and Uruguay by 2025.[265]

Next to deforestation, leading environmental and human rights organisations have reported numerous abuses, including slave labour and child labour,[266] the violation of indigenous peoples' rights, and the lack of adequate environmental or human rights due diligence on Cargill's soy supply chains and operations in Brazil.[267] For example, in May 2023 allegations of land grabbing of traditional lands in the city of Abaetetuba (in the Amazon Pará state) were followed by two court cases, leading to the recommendation to suspend Cargill's licence request process for the construction of a planned USD 178 million river port here. In October 2023 the federal prosecutor launched a criminal probe into the acquisition of the land related to this port.[268]

Cargill has also been accused of deforestation and other forms of ecosystem conversion via producers of palm oil in Southeast Asia, cocoa in Côte d'Ivoire, and maize and soy in Bolivia.[269] In 2021 Cargill's supply chain was linked to over 15,000 ha of deforestation and other ecosystem conversion related to soy production in Bolivia.[270] Southeast Asian palm oil suppliers potentially linked to Cargill were responsible for 59,280 ha of deforestation between 2015 and 2022.[271]

Top US-based investors in Cargill include Prudential Financial, Blackrock and MetLife. These financial institutions held forest-risk bonds issued by Cargill worth USD 15 million, USD 11 million, and USD 8 million respectively, in 2023.[272]

7.4.2 How US regulations deal with this case

Assessing how the present transparency and due diligence regulations for investors in the United States apply to this case, leads to the following observations:

- The *SEC Rules on Climate-Related Disclosures* are not yet effective. But even when they become effective, they will only apply to public companies and public offerings. As a private company, Cargill is not required to comply with these rules.
- The updated Investment Company Act ''Name Rules'' does not prevent investment funds from investing in Cargill, even if the fund's strategy and name refer to ESG, sustainability or biodiversity. Funds are required to invest 80% of their assets in securities which are aligned with their strategy, but the fund managers can use their own selection mechanism to do this.
- The FOREST Act 2021, which has not been signed into law yet, will prohibit the import into the US of products made wholly or in part of some commodities such as soybeans, palm oil and cocoa that are produced on land where illegal deforestation took place. Given that Cargill sources such products from countries with extensive tropical forests, such as Brazil and Peru, and that Cargill was found to source soy from illegally deforested land several times (see section 7.4.1), the Forest Act 2021 might restrict Cargill's imports into the US when it becomes effective. However, the law does not prevent investors from investing in the bonds issued by Cargill.

7.5 Possible improvements of investment regulations in the United States

7.5.1 Assessment of the present American regulations

This chapter has described and summarised the financial regulations in the United States which could potentially be relevant to aligning financing flows from investors with the targets of the Global Biodiversity Framework (GBF). Table 11 assesses how far these regulations are aligned with three essential GBF targets, based on the methodology described in Appendix 1.

Table 11 Assessment of the present US regulations against GBF targets

Assessment criteria		Colour score	Justification
1	Financial regulations do not allow investing in companies involved in conversion of natural landscapes.	Dark red	Financial regulations do not prohibit investment in companies involved in conversion of natural landscapes.
2	Financial regulations expect financial institutions to stimulate a just transition in the Agriculture, Aquaculture, Fisheries and Forestry sectors which supports the rights of workers, peasants, fisher folk, indigenous peoples, traditional and local communities.	Dark red	Financial regulations do not expect financial institutions to stimulate a just transition in the Agriculture, Aquaculture, Fisheries and Forestry sector. There are no plans to develop a Sustainable Finance Taxonomy in the US, which would inform how financial institutions should identify sustainable activities to allocate their resources.
3	Financial regulations require transparency of all investment flows and full disclosure of biodiversity and social impacts of these flows.	Light red	Financial regulations do require large institutional investors to be fully transparent on the companies they invest in. Investment funds with a focus on ESG are required to invest 80% of the value of their assets in investments related to ESG, but it is left to fund managers to determine which investment meet this criterium. Investors are not required to report on biodiversity and social impacts of their investments.

7.5.2 Recommendations for American legislators and financial sector regulators

This section formulates some recommendations on how the financial regulations in the United States could be improved to limit investment in corporate activities leading to (tropical) deforestation and biodiversity loss.

- **Adopt the Global Biodiversity Framework**

  As a starting point, the United States should join the 196 countries which have adopted the Kunming-Montreal Global Biodiversity Framework (GBF) in December 2022. By adopting the GBF and aligning its financial regulations with the GBF targets, the United States would not only give support to the ambitious pathway to reach the global vision of a world living in harmony with nature by 2050, set out by the GBF. It would also help to create a global level playing field for banks and investors, when it comes to integrating social and biodiversity risks and impacts in decision making processes and operating practices in the financial sector.

- **Improve corporate disclosure standards on climate, biodiversity and social impacts**

  To help investors understand the climate, social and biodiversity impacts of their investment in American companies, the SEC should require companies to take a "double materiality" approach by reporting on the financial risks of social and environmental factors for their operations as well as on the impacts of their corporate activities and supply chains on the

environment and society. Companies should be required to disclose how biodiversity and social risks and impacts are integrated into their company strategy and business models. This includes establishing metrics, setting targets and creating a transition plan to address environmental and social risks and impacts, and reporting transparently on these aspects.

- **Abolish the disclosure exemptions for private placements**

  Make sure that issuers choosing for private placement of bonds to investors meet the same reporting requirement as issuers of securities on the stock exchange. Expect these issuers to take a "double materiality" approach as well in their reporting on the financial risks of social and environmental factors for their operations as well as on the impacts of their corporate activities and supply chains on the environment and society.

- **Sustainable Finance Taxonomy**

  Following in the footsteps of the EU and many other jurisdictions, a Sustainable Finance Taxonomy should be developed to classify economic activities that are sustainable as well as activities that are unsustainable. The taxonomy should be aligned with other major national and regional taxonomies to allow interoperability and usability. It should encompass the key social and environmental issues, including biodiversity, and contain a list of unsustainable activities and Technical Screening Criteria (TSC) for all biodiversity-risk sectors. This would allow investors to identify which companies are meeting environmental standards and developing business strategies which avoid deforestation and biodiversity loss. Currently, there are no plans in the US to launch a Sustainable Finance Taxonomy.

- **Green Bonds Framework**

  The US should advance in developing a regulatory framework for green bonds, including norms related to the process of issuing green bonds, disclosure requirements and standardisation of green activities with a Sustainable Finance Taxonomy to prevent greenwashing. All green bonds net proceeds must be allocated in accordance with activities that are classified as green in a sustainable taxonomy. Furthermore, while there are various international principles on issuing green bonds, national guidelines related to this process would help issuers to enhance the process of issuing green bonds according to other regulations in the United States. Additionally, the SEC must mandate issuers of green bonds to disclose on a regular basis in which activities the proceeds are being invested. This would increase transparency for the investors and prevent greenwashing.

- **Name rules for funds**

  Once the US has developed and adopted a Sustainable Finance Taxonomy, the SEC should also consider aligning the Investment Company Act ''Names Rules'' to this taxonomy. Therefore, for funds that incorporate in their names ESG-related terms, the SEC could ensure that the assets included in the fund portfolio are related to sustainable activities defined by the taxonomy. The SEC has noted that the wide range of ESG-related terms, along with changing investor expectations for terms such as "sustainable" and "socially responsible," increases the likelihood of investor confusion and potential "greenwashing" in fund names.[273] Therefore, since a Sustainable Finance Taxonomy has not been established yet in the US, the SEC could use internationally recognised sustainability standards or rankings as a guide to determine which assets related to ESG projects or activities could be included in a fund portfolio labelled with ESG terms.

- **Sustainability due diligence requirements**

  The US could also consider requiring large companies, including financial institutions, to prevent, mitigate and remedy environmental impacts and human rights abuses related to their own operations and value chain, as happens with the EU Corporate Sustainability Due Diligence Directive. The requirement should involve the identification of the most important social and environmental impacts caused by, contributed to or directly linked to the company and the

value chain. After identification, the company should act on stopping or mitigating these impacts and providing remedy. Implementing these measures would enable investors to identify corporations that have adopted reliable actions to address environmental and social issues. And it would force large investment firms to develop such strategies themselves.

- **FOREST Act**

  Pass the FOREST Act so that it becomes legally binding and develop the relevant procedures and protocols for its implementation. Include financial institutions in the scope of the Act, so that they are not allowed to finance, or invest in, companies which export or import the products which are prohibited from imports into the US.

- **Hold financial institutions accountable**

  SEC and criminal authorities should act if investors do not meet the requirements in existing regulations and the new regulations proposed above. Fines and sanctions such as holding board members accountable, (temporarily) revoking a licence, or not allowing market access for certain financial products should be used.

8

Conclusions and recommendations

The possible improvements of financial regulations in the five different jurisdictions identified in the preceding chapters are summarised in this chapter. Based on these findings and other relevant literature, we present a set of general recommendations to financial regulators and legislators across the world on how to integrate biodiversity and human rights criteria in financial regulation and to ensure alignment with the GBF targets.

8.1 Suggested reforms in five jurisdictions

The analyses in the previous chapters are summarised in Table 12, showing the most urgent and critical reforms which could be implemented in the five different jurisdictions to integrate biodiversity and human rights criteria in financial regulations. The reforms are categorised on the basis of the regulation categories we defined in Chapter 2.

This list is intended as a starting point for discussion. It was beyond the scope of this research to consult a broad array of stakeholders on the recommendations. Effective policy development will require a diverse array of stakeholder involvement – including environmental defenders, indigenous peoples and other groups most impacted by biodiversity and human rights-related risks and opportunities.

As we focused per jurisdiction on particular types of financial institution, and to limit the size of Table 12, the table does not repeat for each jurisdiction the full list of recommendations which are applicable to all jurisdictions that aim for alignment of their financial regulations with the GBF targets. The full list of recommendations for all jurisdictions is presented in section 8.2.

Table 12 Suggested reforms of financial regulations per jurisdiction

Jurisdiction	Regulatory category	Suggested reforms of financial regulations
Indonesia	Financing of sustainable activities	• Include technical screening criteria for biodiversity-risk sectors in the Indonesia and ASEAN Taxonomies and include a list of eligible activities that contribute positively to biodiversity and human rights as well as a list of unsustainable activities.
	Financing of sustainable activities	• Make a transition plan mandatory for all banks and financial institutions, which aligns their portfolios with the taxonomies.
	Risk management	• Give guidance to banks on how to deal with biodiversity-risk sectors by strengthening the existing palm-oil financing guidelines of financial regulator OJK and develop other sector-specific financing guidelines.
	Risk management	• Require banks to measure and report on their biodiversity-related exposure and impacts at the portfolio level, to be transparent about which companies they finance, and to integrate biodiversity impacts in their risk-management systems.

Jurisdiction	Regulatory category	Suggested reforms of financial regulations
	Risk management	• Due diligence requirements for banks on social and environmental risks and impacts need to be broadened from their direct clients to the entire corporate groups these belong to.
	Risk management	• Introduce lower reserve requirements for sustainable finance products and higher capital requirements – and even limits – on exposures to companies harmful to biodiversity and human rights.
	Monetary policy	• Include biodiversity and human rights criteria in the Bank Indonesia's collateral list and asset purchase programme, and introduce preferential borrowing rates for sustainability-linked loans.
	Proper functioning of financial markets	• Apply strong fines and sanctions to hold banks accountable for living up to the requirements on biodiversity and human rights in existing regulations and the new regulations proposed above.
Brazil	Protecting human rights and the environment	• Strengthen social and environmental restrictions on rural credit and apply the same restrictive criteria to credit for downstream companies which can create negative social and environmental impacts via their supply chains.
	Proper functioning of financial markets	• Set a clear framework for investment products such as CRAs, LCAs and FIAGROs, similar to the requirements for rural credit, including transparency on the companies and rural properties being financed.
	Financing of sustainable activities	• Finalise and launch a Brazilian Taxonomy for Sustainable Finance, with sectoral guidance for sectors with high biodiversity risks. Preferably, the taxonomy should also define which activities should be avoided and it should be linked to other types of financial regulation.
	Risk management	• Strengthen the screening policies of state-owned banks BNDES and Banco do Brasil to make sure they follow the Brazilian Sustainable Finance Taxonomy and support the GBF targets.
	Monetary policy	• Strengthen biodiversity and human rights criteria in the collateral list of the Central Bank of Brazil (BCB) and introduce them for BCB's asset purchase programme. Also introduce preferential borrowing rates for sustainability-linked loans.
	Risk management	• Require banks to measure the biodiversity impacts of their financing and to integrate biodiversity impacts in their risk-management systems.
	Risk management	• Introduce lower reserve requirements for sustainable finance products and higher capital requirements – and even limits on – exposures to companies harmful to biodiversity and human rights.
	Risk management	• Require banks to develop transition plans in their Policy of Social, Environmental, and Climate Responsibility (PSRAC) for sectors with a high impact on biodiversity such as agriculture, livestock and forestry.
	Risk management	• Improve the Social, Environmental, and Climate Risks and Opportunities (GSRAC) Report by expecting transparency on the companies being financed by the bank and by requiring a regular assessment of the impacts of the bank's financing decisions on environmental and social issues.

Jurisdiction	Regulatory category	Suggested reforms of financial regulations
	Proper functioning of financial markets	• Apply strong fines and sanctions to hold banks accountable for living up to the requirements in existing regulations and the new regulations proposed above.
China	Protecting human rights and the environment	• Impose explicit requirements in financial regulations that prohibit the raising of funds, through issuances of (normal) bonds or shares, for illegal activities and activities leading to biodiversity loss or violations of human rights (in China or overseas).
	Financing of sustainable activities	• Develop the Green Bond Catalogue into a Sustainable Finance Taxonomy that includes sector-specific lists of eligible activities and activities that should be avoided
	Financing of sustainable activities	• Explicitly mandate that 100% of the funds raised through green bonds must be allocated exclusively to activities aligned with this Sustainable Finance Taxonomy.
	Proper functioning of financial markets	• Enhance independent third-party verification and certification processes to ensure that activities funded through green bonds are aligned with the Taxonomy and assure investors and stakeholders of the authenticity and environmental impact of their investment.
	Corporate disclosure	• Introduce comprehensive and mandatory sustainability reporting standards for issuers, to create more transparency on where financial flows are going and what the social and biodiversity impacts are in China and overseas.
	Risk management	• Mandate financial institutions to conduct comprehensive Environmental, Social and Governance (ESG) due diligence when underwriting or advising on corporate bonds, and to be transparent regarding their due diligence processes.
	Risk management	• Make the *Guidelines for Financial Institutions Environmental Information Disclosure* mandatory. This document should oblige, not just encourage, financial institutions to disclose environmental information, including the impacts on biodiversity and human rights, in China and overseas, of their underwriting services.
	Protecting human rights and the environment	• Create a grievance mechanism for the financial sector, offering (Chinese and foreign) communities that are impacted by financing, investment or the underwriting of bonds or shares a channel to be heard and find access to remedy.
	Proper functioning of financial markets	• Apply strong fines and sanctions to hold issuers and underwriting banks accountable for living up to the requirements in existing regulations and the new regulations proposed above.
European Union	Financing of sustainable activities	• Develop the EU Taxonomy further by also classifying harmful economic activities, adding technical screening criteria for more sectors and activities, and mandating specific timelines for the present category biodiversity conservation. Complement the taxonomy with a Social Taxonomy which covers human rights issues.
	Proper functioning of financial markets	• Amend the Sustainable Finance Disclosure Regulation (SFDR) by requiring investors to be transparent about the companies they actually invest in and how the impact of these companies on society and the environment is assessed.

Jurisdiction	Regulatory category	Suggested reforms of financial regulations
	Proper functioning of financial markets	• Introduce clear labelling requirements for investment funds by the European Securities Markets Authority (ESMA), which include biodiversity criteria.
	Proper functioning of financial markets	• Develop an ambitious timeline to phase out all investment funds defined in Articles 6 and 8 of the Sustainable Finance Disclosure Regulation (SFDR), to only allow Article 9 funds to be sold to investors.
	Corporate disclosure	• Amend the Corporate Sustainability Reporting Directive (CSRD) to require companies and financial institutions to develop biodiversity transition plans in line with GBF targets and further detail ESRS criteria for different economic sectors.
	Protecting human rights and the environment	• After the review of the European Regulation on Deforestation-free Products (EUDR), due diligence obligations related to forest-risk commodities should be expanded to the financial sector.
	Protecting human rights and the environment	• Expand the scope of Corporate Sustainability Due Diligence Directive (CSDDD) by also applying the due diligence requirements to the financing and lending activities of financial institutions.
	Proper functioning of financial markets	• Apply strong fines and sanctions to hold investors accountable for living up to the requirements in existing regulations and the new regulations proposed above.
United States	Protecting human rights and the environment	• Adopt the Global Biodiversity Framework, thereby committing to integrate biodiversity and its multiple values into policies and regulations.
	Corporate disclosure	• Require security issuers to report on biodiversity and human rights risks and their risk-management strategies from a double materiality perspective.
	Corporate disclosure	• Abolish the disclosure exemptions for private placements.
	Financing of sustainable activities	• Develop a national Sustainable Finance Taxonomy which encompasses the key social and environmental issues, including biodiversity, and contains a list of unsustainable activities and Technical Screening Criteria (TSC) for all biodiversity-risk sectors.
	Financing of sustainable activities	• Develop a regulatory framework for green bonds, including guidelines to issue green bonds, disclosure requirements on where the proceeds are invested and standardisation of green activities with the Sustainable Finance Taxonomy.
	Proper functioning of financial markets	• Mandate fund managers who label their funds with terms related to Environmental, Social and Governance (ESG) or sustainability criteria, to align their investment with the national Sustainable Finance Taxonomy or with internationally recognised sustainability standards or rankings.
	Protecting human rights and the environment	• Develop and launch sustainability due diligence requirements for major companies, including financial institutions, similar to the EU Corporate Sustainability Due Diligence Directive.
	Protecting human rights and the environment	• Pass the Fostering Overseas Rule of law and Environmentally Sound Trade (FOREST) Act so that it becomes legally binding and include financial institutions in the scope of the Act.

Jurisdiction	Regulatory category	Suggested reforms of financial regulations
	Proper functioning of financial markets	• Apply strong fines and sanctions to hold investors accountable for living up to the requirements in existing regulations and the new regulations proposed above.

8.2 Recommendations for all countries

This section develops a set of general recommendations to financial regulators and legislators across the world on how to integrate biodiversity criteria in financial regulation and to ensure alignment with the GBF targets. At the 15th Conference of the Parties to the Convention on Biological Diversity, countries agreed to review and update their National Biodiversity Strategy and Action Plans (NBSAPs) and to develop, update and implement national Biodiversity Finance Plans (BFPs). The NBSAPs serve as the basic policy framework for the implementation of the CBD at the national level and BFPs aim to close the biodiversity financing gap and support efforts to achieve the NBSAP targets.[274] The recommendations in this section can help countries with this effort.

The recommendations are grounded in the five principles the Forests & Finance Coalition aims to achieve: [275]

- Halting and reversing biodiversity loss;
- Respecting and prioritizing the rights of indigenous peoples and local communities;
- Fostering a just transition which puts community rights and ecology central,
- Ensuring ecosystem integrity; and
- Aligning institutional objectives across sectors, issues, and instruments.

The recommendations are grouped according to the type of regulations described in Chapter 2. As explained there, this report uses a broad definition of financial regulations, beyond what is normally defined as financial regulation or supervision. This definition encompasses all types of government laws, regulations and guidelines which have impact on how financial institutions operate, especially when it comes to the financing of, and investment in, companies in the real economy. This broader definition also deals with the problem that, in many jurisdictions, central banks and other financial regulators might argue that it is beyond their mandate directly to include biodiversity and human rights criteria in their regulations. A study of 135 financial regulators across the world found that only 12% have explicit sustainability mandates, while 40% are mandated to support the government's policy priorities, which mostly include sustainability goals.[276]

However, as the Network for Greening Financial System (NGFS) has argued, there are good reasons to integrate biodiversity risks into financial regulations: "While governments bear the primary responsibility for mitigating and reversing biodiversity loss, the financial sector too has an important role. It should align itself with the transformations that are necessary to deliver a global economy that is positive for nature. Financial regulators and central banks can and must enable the greening of the financial system; this role is not inconsistent with their mandates for price and financial stability."[277]

Our recommendations on how regulators and legislators in all countries could take up this challenge are based both on the conclusions emerging from the analyses of existing regulations in the five jurisdictions dealt with in this report and on a literature review across a range of reports and policy briefs. These include publications by NGOs, financial sector networks, think tanks and intergovernmental bodies, including publications by WWF, RAN, Finance Watch, Reset Finance, Network for Greening the Financial System, the Sustainable Finance Lab, the High-Level Expert

Group on scaling up sustainable finance in low- and middle-income countries, and other organisations and groups.

8.2.1 Regulations on risk management and financial stability

Prudential regulations are essential to ensure proper risk management by financial institutions and the stability of the financial system. As discussed in section 2.1, climate risks are already included in prudential regulations in many jurisdictions, for example by incorporating climate-related scenarios into stress tests. Because of the significant impact of corporate activities on biodiversity and human rights, while many sectors (e.g. agriculture, fisheries, pharmaceuticals) and entire economies depend heavily on biodiversity, integrating biodiversity and human rights' risks into prudential regulations must be the next step. A number of recommendations may be put forward to reach this goal:

- Prudential regulations should require banks and investors to integrate biodiversity and human rights risks and impacts, based on a double materiality approach, in their risk-management processes and strategies. The management of such risks and impacts should be deeply integrated into strategy development and operations, including risk protocols, due diligence and KYC (Know Your Customer) processes, and in the key banking products and business lines, both in corporate and retail banking.
- Funding provided to a specific company is often lent to a subsidiary, parent or sister company within the same corporate group, as defined by the Accountability Framework Initiative.[278] It is therefore important that the due diligence requirements for banks and investors on social and environmental risks and impacts are broadened from their direct clients and investees to the entire corporate group they belong to.
- Based on a deep understanding of the biodiversity and human rights risks and impacts in their portfolio, financial institutions should be expected to develop a transition plan to address these risks and impacts, with clear objectives and time-bound targets. The transition plan should consist of sector-specific policies which detail which standards the financial institution expects companies to comply with. The transition plan should also clarify how companies will give concrete support to clients and investee companies in changing business practices or products to address their negative impacts on biodiversity and human rights. If clients or investee companies cannot, or do not want to, take such steps, the financing relationship should be ended. [279]
- The ultimate responsibility for the management of biodiversity risks and impacts should be delegated to (a member of) the board of directors. Remuneration of the board of directors and the relevant senior managers (for example, heads of business lines, country/regional offices, or sectoral divisions) should depend on the environmental and social KPIs set for the bank collectively and for each division.[280]
- To manage biodiversity risks and impacts properly, financial institutions should be required to invest in the necessary expertise inhouse, commensurate to their mandate, tasks and responsibilities.[281]
- For any project finance products, and in particular for projects in biodiversity-rich areas, commercial banks must be required to use credible third-party-verified biodiversity and human rights assessment tools. The minimum requirements should include at least using pre-developed off-the-shelf satellite-based maps. On-site inspections must occur for all large-scale projects and projects in biodiversity-rich locations, and to check if the principle of Free, Prior and Informed Consent (FPIC) has been applied consistently in relation to affected indigenous peoples and local communities.

- To prevent the potential build-up of systemic risk, the exposure of banks to high biodiversity-risk activities should be limited[282] and the capital requirements for loans to companies involved in biodiversity-risk activities should be significantly higher. Prohibitive reserve requirements of up to 100% may be imposed on loans to the sectors accounting for the worst impacts on biodiversity and climate.[283]
- Biodiversity risks should be integrated into system-wide stress tests for the banking and insurance sector and guidelines should be developed for financial institutions on how to perform such stress-tests.[284]
- To make sure that the above recommendations on risk management are adopted by as many jurisdictions as possible, to avoid financial flows being redirected to jurisdictions with lower standards, the Basel Committee on Banking Supervision (BCBS) should integrate these recommendations in a Green Basel Capital Accord. The BCBS is the primary global standard setter for the prudential regulation of banks, responsible for the Basel Capital Accord which guides financial regulations worldwide. Its 45 members comprise central banks and bank supervisors from 28 jurisdictions.[285]

8.2.2 Regulations ensuring the proper functioning of financial markets

For the proper functioning of financial markets, it is important that consumers and other stakeholders receive the necessary information to make informed decisions. In this respect, information on the exposure of financial institutions to biodiversity risks and on the impact of their financial services and products on biodiversity and human rights is crucial. This information provision could be enhanced by the following steps:

- All institutional investors, including pension funds and insurance companies, should be required to disclose publicly a list of their investee companies on a quarterly or annual basis, together with the amounts invested per company.
- Banks should be required to publish annually a detailed breakdown of their loan portfolio by economic sector, for example based on the first four digits of NACE and ISIC.
- All financial institutions must be required to report on their biodiversity exposure and impacts on a portfolio level, with detailed reporting on key sectors including marine fisheries, tropical agriculture, forestry, metals and mining, infrastructure and others. Reporting guidelines need to be based on recognised sustainability reporting frameworks, such as GRI, and recommendations of civil society organisations and representatives of indigenous peoples, womens' groups, traditional and local communities. The reporting should cover the progress made with the financial institution's transition plan, as well as the complaints the financial institution has received on the biodiversity and human rights impacts of its financing and investment. External verification or independent assurance of this biodiversity reporting is necessary by credible auditors with the relevant experience, competencies and skills.[286]
- Financial institutions must be required to prove any biodiversity-related claims made about their products, services or specific portfolios or funds. Any such claims must be credibly verified by an independent qualified party free from conflict of interest.
- Investment funds need to be categorised and labelled, based on sustainability criteria related to their impacts on the environment and society. This categorisation and labelling can be linked to a Sustainable Finance Taxonomy (see section 6.2.1) to define how companies and their activities can be categorised.
- As a next step after the categorisation of investment funds, an ambitious timeline would be needed to phase out the offering of investment funds on the market which are investing in companies with strong negative biodiversity impacts. This could be achieved by gradually raising the required baseline percentage of taxonomy-aligned investment for all investment

funds and requiring all investment funds to align with the Do No Significant Harm (DNSH) criteria in the taxonomy.

- Like investment funds, bank accounts and insurance products should also get a sustainability label, as clients should be informed about what impacts on biodiversity and human rights are the consequence of their choice of certain financial products.

8.2.3 Monetary policy

Apart from targeting inflation and ensuring price stability, the monetary policy instruments used by central banks (see section 2.3) can also contribute to better environmental and social outcomes. The following recommendations are relevant in this respect:

- Through their quantitative easing programmes, many central banks try to regulate the supply of money by buying or selling securities on the open market. To counter the relatively higher negative impact of an expansionary monetary policy on the interest rates charged by banks to more sustainable companies[287] and to contribute to the climate transition, central banks should opt for "green quantitative easing". This means that they prioritise bonds from issuers and sectors which make a more positive contribution to biodiversity and human rights, thereby incentivising all market players to invest more in such bonds and less in bonds of companies which have negative impacts.[288]
- Central banks should give preference to genuinely and verifiably green, social and sustainable bonds in their collateral frameworks, while simultaneously excluding bonds from companies with negative impacts on biodiversity and human rights.[289] Alignment of the collateral framework with the Sustainable Finance Taxonomy (see section 6.2.1) could help in this respect.
- Central banks should introduce or reinforce lending facilities by offering a reduced interest rate to banks and other financial institutions for the financing of activities benefiting the transition to a sustainable economy.[290] This would help financial institutions to finance genuinely sustainable and socially just activities, including those contributing to biodiversity conservation. As it is crucial to ensure a proper use of these facilities, alignment with the Sustainable Finance Taxonomy (see section 6.2.1) is useful.
- Central banks need to assess the contribution of their own investment portfolios to negative biodiversity and human rights impacts. By addressing those impacts through engagement with investee companies and exclusions, they set an example for all institutional investors how to align a portfolio with the GBF targets. [291]

8.2.4 Regulations on money laundering and financial crime

As discussed in section 2.4, regulations on money laundering and financial crime are focused on preventing the proceeds of crimes being spent or invested in assets in the legal economy. There is less attention on the financing of companies which might use this funding to commit crimes, including activities which violate laws and regulations on land use, human rights and environmental protection, in their own jurisdiction or elsewhere. The following recommendations are relevant in this respect:

- Money laundering regulations should pay more attention to the financing of companies which might use this funding to commit crimes. There should be a strict no-tolerance policy on financing companies if they are not able to demonstrate clear adherence to all legal requirements in the areas where they operate. Companies requesting financing should also be able to demonstrate that their subsidiaries, affiliates and commodity suppliers adhere to all legal requirements related to land use, human rights and environmental protection.
- Money laundering regulations should align well with prudential regulations (see section 8.2.1) to ensure that banks and investors integrate biodiversity risks and impacts, based on a double

materiality approach, in their due diligence and Know Your Customer (KYC) processes. This due diligence should not just focus on the origin of funds transferred through the bank but also on the activities for which corporate clients need funding and which could result in various crimes impacting biodiversity and human rights.

- Beneficial Ownership registers should require companies not only to identify and register their Ultimate Beneficial Owner (UBO), but also the structure of the corporate group they belong to, including names and domicile countries of all corporate entities which are part of the group. Such registering should be based on the definitions provided by the Accountability Framework Initiative.[292] This will support banks and investors in assessing the possible social and environmental risks and impacts of funding one company which can easily lend these funds to another entity in the same corporate group.
- Financial institutions should monitor if the companies they are financing or investing in get involved in crimes impacting biodiversity and human rights, in their own jurisdiction or elsewhere.[293] If this is the case, the financial institution should contribute to mitigation and remedy, in line with the UN Guiding Principles on Business and Human Rights.[294]

8.2.5 Regulations on corporate disclosure

Corporate disclosure regulations are relevant for financial institutions in two ways. First, financial institutions are companies themselves and have to follow these regulations as well. Second, corporate disclosure regulations can help financial institutions to collect the necessary data for their due diligence processes on (potential) corporate clients and investee companies, potentially also in relation to biodiversity and human rights' risks and impacts. The following recommendations are relevant in this respect:

- Financial reporting regulations should be strengthened to require all public and private companies in all jurisdictions to publish a profit and loss statement and to provide more details on their assets and liabilities. Regarding assets, there should be more transparency on the plantations or concessions managed and whether the company has the legal ownership of these assets and adheres to all legal requirements in the countries it operates in. On the equity and liabilities side, companies should provide details on their shareholders, on the bonds they have issued and on the bank loans they have attracted, detailing the names of the banks and the amounts provided.
- Companies under the common control of medium-sized and large corporations must be required to report annually on the biodiversity exposure and the biodiversity and human rights impacts of the business activities of the corporate group they belong to, based on detailed, verifiable (geolocation) data, especially if they are active in key sectors including fisheries, agriculture, forestry, metals and mining, infrastructure and others. These reporting requirements should be aligned with those for financial institutions (see section 8.2.1). The reporting should include an analysis of how the company, directly or indirectly through its supply chain, has an impact on the environment and on human rights – irrespective of if this is a financial risk to the company. This so-called "double materiality" analysis should be based on recognised sustainability reporting frameworks and recommendations of civil society organisations. The report should also include a list of serious complaints or grievances raised against the company, including the company's response. External verification or independent assurance of this biodiversity reporting is necessary, by credible auditors with the relevant experience, competencies and skills.
- On top of the annual reporting requirements applicable to all companies, there should be additional and more in-depth reporting requirements for companies issuing shares and bonds to investors. In the prospectus, the issuer should make a very detailed analysis of its biodiversity and human rights risks and impacts, in order to support investors in making sound investment decisions.

- As part of the regulations applicable to companies developing projects in biodiversity-rich areas, they should be transparent about the banks they have approached to attract project finance – preferably before any project finance deal is closed. This transparency would make it possible for indigenous peoples, affected communities and civil society organisations to approach these banks and share their concerns in time for them to be taken into account in the banks' due diligence processes. For existing project financing, this would also inform indigenous peoples and affected communities where to go to seek redress.

8.2.6 Regulations stimulating the financing of sustainable activities

To give guidance to all stakeholders involved, including companies in the real economy and financial institutions, sustainable finance taxonomies and other types of regulations and guidelines are emerging in different countries to stimulate the transition to a more sustainable economy. The following recommendations are relevant in this respect:

- Taxonomies must be expanded in terms of the scope of eligible activities and sectors and reach beyond climate change to incorporate other critical environmental and human rights issues and, first and foremost, biodiversity. For example, as already proposed by NGFS, they should include activities that contribute to biodiversity conservation, such as reforestation, conservation of protected areas, and protection of fishery resources. This should be done in cooperation with the academic community and environmental NGOs, which should be directly involved in developing the relevant technical screening criteria and measurable thresholds for each new sector or activity.[295]
- Taxonomies should also define which sectors and activities should be seen as unsuitable or inherently harmful. This gives a clear signal to financial institutions, which can be reinforced by regulations discussed in section 8.2.1, that any new investment or financing to be used for the expansion of such activities should be halted, while financing of, or investment in, ongoing projects must be gradually phased out.[296]
- In addition to green taxonomies, social taxonomies should be developed and implemented. These taxonomies should define corporate activities which positively contribute to paying living wages, securing good labour conditions, eradicating poverty and providing healthcare, education and affordable housing. These taxonomies should clearly recognise and support the social dimensions of biodiversity conservation, defining which activities are beneficial for workers, peasants, fisher folk, indigenous peoples and local communities.[297]
- Financial regulators must create national (reporting) criteria for green bonds and loans, in line with the double materiality principle and internationally recognised standards, including the ICMA green, social and sustainability-linked bonds principles. These criteria should be accompanied by an ambitious, time-bound plan to phase out the issuance of bonds and loans which do not meet these standards.
- Banks and other financial institutions should be required to develop a Sustainable Finance Action Plan, with clear metrics and targets, that addresses the biodiversity and human rights impacts of financing and investment decisions with a systemic approach on the transition of key economic sectors and activities.[298] This Sustainable Finance Action Plan should lead to the alignment of financing and investment portfolios with sustainable finance taxonomies and should include a time-bound plan to phase out all credit and investment which are financing activities harmful for the environment and for human rights.
- Create robust, transparent and verifiable criteria for finance that incentivises agro-ecology and community-led sustainable land use and nature restoration. National and multilateral development banks should redefine their mandates to take the lead in executing these policies.

8.2.7 Regulations protecting human rights and/or the environment

Governments across the world are trying to address the sometimes negative social and environmental impacts for which companies in their jurisdictions are directly or indirectly (through their subsidiaries, affiliates and international supply chains) responsible. Such regulations may include corporate, criminal or civil law requirements, focusing mostly on companies in the real economy. The following recommendations are relevant in this respect:

- The countries which have not yet done so should join the 196 countries which have adopted the Kunming-Montreal Global Biodiversity Framework (GBF) in December 2022. By adopting the GBF and aligning their financial regulations with the GBF targets, these countries would not only give support to the ambitious pathway to reach the global vision of a world living in harmony with nature by 2050, as set out by the GBF. They would also help to create a global level playing field for banks and investors when it comes to integrating social and biodiversity risks and impacts in decision-making processes and operating practices in the financial sector.
- Financial institutions should not be excluded from human rights and environmental due diligence regulations and from regulations on the import of products potentially linked to deforestation. These regulations define steps required to avoid or mitigate social and environmental harm caused by a company's activities or supply chains.[299] This objective should be broadened to cover the financing and investment decisions of financial institutions as well, which can also "contribute" to human rights violations – in the terminology of the UN Guiding Principles of Business and Human Rights.[300] Financial institutions should therefore also be obliged to assess and mitigate the risks regarding negative biodiversity and human rights impacts of their financing and investment decisions.
- In line with the UN Guiding Principles of Business and Human Rights,[301] independent grievance and accountability mechanisms for the financial sector should be set up. Such mechanisms should make it possible for affected communities and third parties to complain about negative biodiversity and human rights impacts of the financing and investment decisions of financial institutions. When a financial institution has contributed, through its investment or financing, to violations of human rights and destruction of biodiversity, the grievance mechanism should be able to establish fines and force the financial institution to provide remedy and redress for affected communities and the environment.[302]
- Financial institutions should also be included in regulations that define a corporate duty to prevent human rights violations and environmental damage. These regulations articulate that companies can be held responsible for their role in extremely serious human rights violations, and in some cases, extreme environmental issues. This can result in civil or criminal penalties. By including financial institutions in such regulations, it is made clear that financial institutions can be held accountable for crimes connected to the corporate groups that they finance, including those impacting biodiversity and human rights, and should be liable for remedy.

8.2.8 Strengthening the regulatory environment

The recommendations made in the preceding sections, to align financial regulations with the GBF targets, require coordinated and concerted effort from legislators, central banks and financial sector regulators. To take up this challenge, they should implement stronger governance models and more robust yet flexible internal organisational structures. The following recommendations are relevant in this respect:

- Outcome-focused financial regulations that align with the objectives of the GBF and shift the economy away from harmful activities must be supported by a robust sanctions regime. Regulators should act if financial institutions do not meet the requirements in different regulations and impose stringent penalties and obligations to fund mitigation and remedy efforts for affected communities and ecosystems. The European Central Bank recently demonstrated progress in this respect, by announcing that European banks which have not

included climate risks in their risk assessments and in their capital reserve policies will be fined. The ECB can issue daily fines amounting up to 5% of a bank's daily turnover until resolved, or for up to six months.[303] Other enforcement steps to be considered could be capital add-ons, concentration limits, holding board members accountable, (temporarily) revoking a licence or not allowing market access for certain financial products.

- In cooperation with academic institutions and NGOs, central banks and financial regulators should establish inclusive stakeholder platforms to consult with Indigenous Peoples, civil society and other experts. As part of these structures, the key stakeholders should regularly inform the central banks' leadership about their environmental and social "asks" and provide expertise and advice on how these demands can be integrated into the bank's policies and supervisory expectations.
- Financial regulatory authorities should develop centres of expertise on social and environmental issues, including biodiversity, which should be integrated into the financial sector. In addition to their supervisory duties, they should provide financial institutions with the relevant knowledge via regular training and capacity development activities.[304] They should support financial institutions to use available tools, such as Forests & Finance, to identify, understand and address the biodiversity and human rights risks and impacts in their portfolios. By collaborating with scientists, particularly those associated with the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES),[305] they should verify that measurements of biodiversity-harming or positive investments/portfolios are science-based, credible and transparent, including assessment of the often proprietary methods/models used by the financial sector.[306]
- International stakeholders should acknowledge that financial regulations alone will never be sufficient to create a just transition. For countries in the global South, social development through poverty eradication and job creation is pivotal. To achieve these goals, governments often continue to support extractive sector expansion that drives biodiversity loss. This choice should be challenged, while recognising that their policy autonomy to choose differently is highly constrained by their position in the world market and within the international financial and monetary system. The reform of this unjust international architecture needs to be on the top of the international sustainable development agenda. International cooperation and support are essential elements to ensure that the national development efforts of the global South are not undermined or undone. What is required to achieve this goes beyond the scope of the present report.

  Meanwhile, governments and other stakeholders in the global South have to deal with these constraints in order to find policies that combine in an appropriate way the interests of biodiversity and human rights with social development objectives. What is prohibited or prescribed should therefore be determined on the national level, given the different national circumstances.[307]

References

1 Czarnikow (2024), CRA Issuance Increases and Helps Finance Agribusiness in Brazil, online: https://www.czapp.com/analyst-insights/cra-issuance-increases-and-helps-finance-agribusiness-in-brazil/, viewed in May 2024.

2 Ministério da Agricultura e Pecuária (2024, July), "Boletim do Agro Finanças Privadas", online: https://www.gov.br/agricultura/pt-br/assuntos/politica-agricola/boletim-de-financas-privadas-do-agro/boletim-de-financas-privadas-do-agro-jul.2024/@@download/file

3 BCBS (n.d.), "The Basel Committee – overview", online: https://www.bis.org/bcbs/index.htm, viewed in September 2024.

4 Altavilla, C., M. Boucinha, M. Pagano and A. Polo (2024, August), "Climate risk, bank lending and monetary policy", Working Paper Series No. 2969, European Central Bank, online: https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2969~0f4c56a156.et.pdf.

5 FATF (n.d.), "The FATF", online: https://www.fatf-gafi.org/en/the-fatf.html, viewed in September 2024.

6 Norton Rose Fulbright (2023, March), "Beneficial Ownership Registers: Regulation Around the World", online: https://www.nortonrosefulbright.com/en/knowledge/publications/abe55ea5/beneficial-ownership-registers-regulation-around-the-world

7 OHCHR (2012, January 1), "Guiding Principles on Business and Human Rights: Implementing the United Nations "Protect, Respect and Remedy" Framework", online: https://www.ohchr.org/en/publications/reference-publications/guiding-principles-business-and-human-rights

8 Savourey, E. and S. Brabant, "The French Law on the Duty of Vigilance: Theoretical and Practical Challenges Since Iits Adoption", *Business and Human Rights Journal,* 2021;6(1):141-152. doi:10.1017/bhj.2020.30

9 ASEAN Taxonomy Board (2024), ASEAN Taxonomy Version 3, online: https://www.sfinstitute.asia/wp-content/uploads/2024/03/ASEAN-Taxonomy-Version-3.pdf, viewed in May 2024.

10 NGFS (2024, May), "Indonesia", online: https://data.sbfnetwork.org/country/indonesia, viewed in August 2024.

11 Deloitte (2023, October 27), "Financial Services Authority (OJK) & Banking Regulations Update KM No.7/October/2023", p. 5, online: https://www2.deloitte.com/content/dam/Deloitte/id/Documents/audit/id-aud-ojk-banking-regulations-update-oct2023.pdf, viewed in June 2024.

12 BI (2023, September 27), "Regulation of Members of the Board of Governors Number 11 of 2023 concerning Implementation Regulations for Macroprudential Liquidity Incentive Policy (PADG KLM)".

13 OMFIF (2022, July 5), "Social bonds becoming more important in reserves portfolios", online: https://www.omfif.org/2022/07/social-bonds-becoming-more-important-in-reserves-portfolios/, viewed in May 2024.

14 WWF (2024), "SUSREG Assessment – Indonesia", online: https://www.wwf.sg/susreg/assessments/, viewed in May 2024.

15 WWF (2024), "SUSREG Assessment – Indonesia", online: https://www.wwf.sg/susreg/assessments/, viewed in May 2024.

16 OJK (2015, August), "Roadmap Keuangan Berkelanjutan di Indonesia – Roadmap For Sustainable Finance in Indonesia 2015–2019", online: https://www.ojk.go.id/keuanganberkelanjutan/Uploads/ArticleRiset/ArticleRiset_24021809475752.pdf.

17 WWF (2024), "SUSREG Assessment – Indonesia", online: https://www.wwf.sg/susreg/assessments/, viewed in May 2024.

18 OJK (2021), "Sustainable Finance Roadmap Phase II (2021–2025)", online: https://www.ojk.go.id/id/berita-dan-kegiatan/publikasi/Documents/Pages/Roadmap-Keuangan-Berkelanjutan-Tahap-II-%282021-2025%29/Roadmap%20Keuangan%20Berkelanjutan%20Tahap%20II%20%282021-2025%29.pdf.

19 OJK (2017), "Summary of the Regulation (POJK) Number 51/POJK.03/2017 concerning the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies", p. 1.

20 OJK (2017), "Unofficial Translation of the Regulation (POJK) Number 51/POJK.03/2017 concerning the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies", Article 7, p.8.

21 OJK (2017), "Unofficial Translation of the Regulation (POJK) Number 51/POJK.03/2017 concerning the Implementation of Sustainable Finance for Financial Services Institutions, Issuers, and Public Companies", Article 8, p.8.

22 OJK (2020), "Technical Guidelines for Banks on the Implementation of OJK Regulation POJK Number 51/POJK.03/ 2017", p. 43.

23 PWC (2024, January 10), "Indonesian banks under increasing regulatory pressure to disclose climate risks", online: https://www.pwc.com/id/en/media-centre/pwc-in-news/2024/english/indonesian-banks-under-increasing-regulatory-pressure-to-disclos.html, viewed in May 2024.

24 University of Indonesia (2023, December 27), "OJK to require banks to factor in climate risks starting in 2026", online: https://sil.ui.ac.id/en/ojk-to-require-banks-to-factor-in-climate-risks-starting-in-2026-2/, viewed in May 2024.

25 OJK (2021), "Circular Letter No. 16/2021 Regarding the Form and Substance of the Annual Report of Issuers (Emiten) and Public Companies", online: https://www.ojk.go.id/id/regulasi/Documents/Pages/Bentuk-dan-Isi-Laporan-Tahunan--Emiten-atau-Perusahaan-Publik/SEOJK%20-%2016%20-%202021.pdf, viewed in April 2024.

26 OJK (2021), "Circular Letter No. 16/2021 Regarding the Form and Substance of the Annual Report of Issuers (Emiten) and Public Companies", pp. 38-40.

27 OJK (2021), "Circular Letter No. 16/2021 Regarding the Form and Substance of the Annual Report of Issuers (Emiten) and Public Companies", p. 3.

28 CDP (n.d.), "Forest Commodity Finance Implications For Southeast Asia's Policy Makers", p. 9, online: https://cdn.cdp.net/cdp-production/cms/policy_briefings/documents/000/005/572/original/CDP_Forests_Policy_Brief__Forest_Commodity_Finance.pdf.

29 OJK (2019), "Palm Oil Plantation Credit and Financing Guidelines (2019)", p. 54-56.

30 OJK (2019), "Palm Oil Plantation Credit and Financing Guidelines (2019)", p. 104.

31 USAID (2023), "Summary of the Indonesian P2SK Law", online: https://pdf.usaid.gov/pdf_docs/PA00ZW63.pdf.

32 ICEL (2023), "Pseudo-Strengthening of Sustainable Finance in Indonesia: Critical Notes on the Financial Sector Development and Strengthening Law", online: https://icel.or.id/en-us/search/v/siaran-pers-penguatan-semu-keuangan-berkelanjutan-di-indonesia-catatan-kritis-undangundang-pengembangan-dan-penguatan-sektor-keuangan.

33 Sustainable Finance Indonesia (2024, March 27), "ASEAN Taxonomy Board Releases ASEAN Taxonomy for Sustainable Finance – Version 3 for Transportation and Construction Sector", online: https://www.ojk.go.id/keuanganberkelanjutan/en/newsmedia/detailpressconference/3481/asean-taxonomy-board-releases-asean-taxonomy-for-sustainable-finance-version-3-for-transportation-and-construction-sectors, viewed in May 2024.

34 Green Central Banking (2024, April 10), "How ASEAN designed a green taxonomy for an Asia of contrasts", online: https://greencentralbanking.com/2024/04/10/asean-south-east-asia-taxonomy/, viewed in May 2024.

35 Green Central Banking (2024, April 10), "How ASEAN designed a green taxonomy for an Asia of contrasts", online: https://greencentralbanking.com/2024/04/10/asean-south-east-asia-taxonomy/, viewed in May 2024.

36 ASEAN Taxonomy Board (2024), ASEAN Taxonomy Version 3, p. 8, online: https://www.sfinstitute.asia/wp-content/uploads/2024/03/ASEAN-Taxonomy-Version-3.pdf, viewed in May 2024.

37 ASEAN Taxonomy Board (2024), ASEAN Taxonomy Version 3, p. 28, online: https://www.sfinstitute.asia/wp-content/uploads/2024/03/ASEAN-Taxonomy-Version-3.pdf, viewed in May 2024.

38 OJK (2024, February), 'Indonesia Taxonomy for Sustainable Finance', online: https://www.ojk.go.id/keuanganberkelanjutan/BE/uploads/siaranpers/files/file_8ef04400-9a1b-430a-ba66-88f11a126877-27032024132325.pdf, viewed in May 2024.

39 OJK (2024, February), Indonesia Taxonomy for Sustainable Finance, p. 37.

40 OJK, (2023, October 19), OJK Issues Regulation on Issuance and Requirements for Debt and Sukuk Securities Based on Sustainability, online: https://ojk.go.id/en/berita-dan-kegiatan/siaran-pers/Pages/OJK-Issues-Regulation-on-Issuance-and-Requirements-For-Debt-and-Sukuk-Securities-Based-on-Sustainability.aspx, viewed in May 2024.

41 Global Finance (2024, January 1), Islamic Finance: Just for Muslim-Majority Nations?, online: https://gfmag.com/banking/islamic-finance-just-muslim-majority-nations, viewed in May 2024.

42 ICEL (2024, April), Policy Paper Rebuilding Indonesia's Sustainable Finance Framework, Indonesian Center for Environmental Law (ICEL), Jakarta: Indonesia, p. 19.

43 Republika (2024, January 3), 'BEI Optimistis Capai 1.000 Emiten pada 2024', online: https://ekonomi.republika.co.id/berita/s6ogsn370/bei-optimistis-capai-1000-emiten-pada-2024, viewed in May 2024.

44 Indonesian Biodiversity Foundation – KEHATI (n.d.), About, online: https://kehati.or.id/tentang-kami/, viewed in May 2024.

45 IDX (2023, June), 2023 Sustainability Report, p. 66, online: https://www.idx.co.id/Media/j4af1drb/laporan-keberlanjutan-bei-2024_publish.pdf, viewed in May 2024.

46 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 77.

47 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 76.

48 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 76.

49 BankTrack (2023, March 31), "Sinar Mas", online: https://www.banktrack.org/company/sinar_mas, viewed in May 2024;

Wikipedia (n.d.), "Sinar Mas", online: https://en.wikipedia.org/wiki/Sinar_Mas, viewed in May 2024.

50 Financial Exclusions Tracker (n.d.), « Sinar Mas », https://financialexclusionstracker.org/, viewed in July 2024.

51 Jacobson, P. (2018, July 10), "Revealed: Paper giant's ex-staff say it used their names for secret company in Borneo", Mongabay, online: https://news.mongabay.com/2018/07/revealed-paper-giants-ex-staff-say-it-used-their-names-for-secret-company-in-borneo/, viewed in September 2024;

Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 77.

52 High Carbon Stock Approach (n.d.), *Grievance Case HCSA-GM-2018-01*, online: https://highcarbonstock.org/grievance_mechanism/hcsa-gm-2018-01/, viewed in August 2024.

53 Golden Agri-Resources (2015, July 23), "Response to Global Witness Report on Golden Veroleum Liberia (GVL)", online: https://www.goldenagri.com.sg/response-to-global-witness-report-on-golden-veroleum-liberia-gvl/, viewed in September 2024.

54 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 77.

55 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 77.

56 BankTrack (2023, March 31), "Sinar Mas", online: https://www.banktrack.org/company/sinar_mas, viewed in May 2024.

57 BankTrack (2023, March 31), "Sinar Mas", online: https://www.banktrack.org/company/sinar_mas, viewed in May 2024.

58 Bell, L. (2014, January 16), "WALHI Jambi: Forestry giant allegedly evaded $15m in taxes", Mongabay, online: https://news.mongabay.com/2014/01/walhi-jambi-forestry-giant-allegedly-evaded-15m-in-taxes/, viewed in May 2024.

59 Forests & Finance (n.d.), ''Data Deep Dive'', online: https://forestsandfinance.org/data/, viewed in August 2024.

60 Banco Central do Brasil (n.d.), "Regulação do sistema financeiro'', online: https://www.bcb.gov.br/estabilidadefinanceira/regulacao, viewed in July 2024.

61 Banco Central do Brasil (n.d.), ''Linhas Financeiras de Liquidez do BCB'', online: https://www.bcb.gov.br/estabilidadefinanceira/linhasfinanceirasdeliquidez, viewed in August 2024.

62 WWF (2024), SUSREG Assessment – Brazil, online: https://www.wwf.sg/susreg/assessments/, viewed in August 2024.

63 Banco Central do Brasil (2023, December), "Report on Social, Environmental and Climate-related Risks and Opportunities", pp. 35–41, online: https://www.bcb.gov.br/content/publications/report-risk-opportunity/ris_2023_ingles_316343_2023.pdf.

64 Banco Central do Brasil (2017, February 17), Resolution CMN No. 4.557, pp.28–30.

65 Banco Central do Brasil (2017, February 17), Resolution CMN No. 4.557, pp. 8–11 and 36.

66 Banco Central do Brasil (2021, September 15), Resolution CMN No. 4.945, online: https://www.bcb.gov.br/estabilidadefinanceira/exibenormativo?tipo=Resolu%C3%A7%C3%A3o%20CMN&numero=4945, viewed in August 2024.

67 Banco Central do Brasil (2021, September 15), Resolution BCB No. 139, pp.1–4.

68 Banco Central do Brasil (2024, March), *Divulga consulta pública, na forma de tomada pública de subsídios, com o objetivo de obter contribuições e informações para proposição, pelo Banco Central do Brasil, de regulação com vistas ao aprimoramento das regras que tratam da divulgação do Relatório de Riscos e Oportunidades Sociais, Ambientais e Climáticas*, pp. 5–8.

69 ANBIMA (n.d.), "Taxonomia sustentável brasileira acelera, com pressa para chegar em 2024", online: https://www.anbima.com.br/pt_br/institucional/publicacoes/taxonomia-sustentavel-brasileira-acelera-com-pressa-para-chegar-em-2024.htm, viewed in April 2024.

70 Governo Federal Brasil (2023, September), *Taxonomia Sustentável Brasileira*, pp. 22–6.

71 Brasil de Fato (2022), "Agronegócio foi resposável por 97% do desmatamento no Brasil em 2021", online: https://www.brasildefato.com.br/2022/07/19/agronegocio-foi-responsavel-por-97-do-desmatamento-no-brasil-em-2021, viewed in April 2024.

72 Plenamata (2022), "Como o crédito rural pode frear desmatamento na Amazonia", online: https://plenamata.eco/2022/03/15/como-o-credito-rural-pode-frear-desmatamento-na-amazonia%EF%BF%BC/, viewed in April 2024.

73 Governo Federal do Brasil (2024, July), *''Governo Federal lança Plano Safra 24/25 com R$ 400,59 bilhões para agricultura empresarial''*, online: https://www.gov.br/agricultura/pt-br/assuntos/noticias/governo-federal-lanca-plano-safra-24-25-com-r-400-59-bilhoes-para-agricultura-empresarial, viewed in August 2024.

74 Ministerio de Agricultura e Pecuária (2023), ''Plano Safra 2023/2024 incentiva sustentabilidade e conta com 13 programas para investimentos'', online: https://www.gov.br/agricultura/pt-br/assuntos/noticias/plano-safra-2023-2024-incentiva-sustentabilidade-e-conta-com-13-programas-para-custeio-comercializacao-e-investimentos, viewed in May 2024.

75 Governo Federal do Brasil (2024, July), ''Governo Federal lança Plano Safra 24/25 com R$ 400,59 bilhões para agricultura empresarial'', online: https://www.gov.br/agricultura/pt-br/assuntos/noticias/governo-federal-lanca-plano-safra-24-25-com-r-400-59-bilhoes-para-agricultura-empresarial, viewed in August 2024.

76 Nannini, G. (2023, June), *Plano Safra é lançado com grande foco em incentivar produçao sustentável,* online: https://planetacampo-canalrural-com-br.translate.goog/agricultura/plano-safra-lancado-foco-sustentabilidade/?_x_tr_sl=pt&_x_tr_tl=en&_x_tr_hl=en&_x_tr_pto=sc, viewed in August 2024.

77 Contreras, M.F., et al. (2024, July), "Deforestation and Conversion – An Introductory Guide for Central Bankers, Financial Regulators and Supervisors", Gand (Switzerland): WWF, online: https://wwfint.awsassets.panda.org/downloads/wwf-deforestation-guide-central-banking.pdf.

78 BCB (n.d.), "Sicor – Tabelas de Domínio do Crédito Rural e do Proagro", online: https://www.bcb.gov.br/estabilidadefinanceira/tabelas-credito-rural-proagro, viewed in August 2024.

79 Czarnikow (2024), CRA Issuance Increases and Helps Finance Agribusiness in Brazil, online: https://www.czapp.com/analyst-insights/cra-issuance-increases-and-helps-finance-agribusiness-in-brazil/#:~:text=In%20recent%20years%2C%20there%20has,BRL%2043.1%20billion%20last%20year., viewed in May 2024.

80 Ministério da Agricultura e Pecuária (2024, July), "Boletim do Agro Finanças Privadas", online: https://www.gov.br/agricultura/pt-br/assuntos/politica-agricola/boletim-de-financas-privadas-do-agro/boletim-de-financas-privadas-do-agro-jul.2024/@@download/file.

81 Equipe Toro Investimentos (2024, July 7), Fiagros: sabia o que sao como funcionam os ''FIIs do agronegocio'', *Toro blog*, online: https://blog.toroinvestimentos.com.br/bolsa/fiagro/, viewed in July 2024.

82 Guedes, L.F. and E.T.Gonçalves (n.d.), *Certificação Socioambiental para a Agricultura como Indutora para Títulos do Agronegócio de Maior Aceitação no Mercado Internacional*, pp. 6–7.

83 Guedes, L.F. and E.T. Gonçalves (n.d.), *Certificação Socioambiental para a Agricultura como Indutora para Títulos do Agronegócio de Maior Aceitação no Mercado Internacional*, p. 6.

84 Avisite (2023), CRA verde viabiliza investimento de USD 47 milhoes na expansao da soja livre de desmatamento no Cerrado, online: https://www.avisite.com.br/cra-verde-viabiliza-investimento-de-us-47-milhoes-na-expansao-da-soja-livre-de-desmatamento-no-cerrado/#gsc.tab=0, viewed in May 2024.

85 Banco Central do Brasil (2022, March 24), Resolution CMN No. 5.006, online: https://www.bcb.gov.br/estabilidadefinanceira/exibenormativo?tipo=RESOLU%C3%87%C3%83O%20CMN&numero=5006, viewed in August 2024.

86 Cámara dos Deputados (2024), ''Projeto cria Letra de Crédito Verde, título de renda fixa para incentivar servicos ambientais'', online: https://www.camara.leg.br/noticias/1044471-projeto-cria-letra-de-credito-verde-titulo-de-renda-fixa-para-incentivar-servicos-ambientais/, viewed in April 2024.

87 CMN (2023, October), "Finanças Sustentáveis – Plano de Ação da CVM", p.5.

88 CMN (2023, October), "Finanças Sustentáveis – Plano de Ação da CVM", pp.6–15.

89 BNDES (n.d.), "The BNDES", online: https://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/The_BNDES/

90 Souza, P., A. Sant´Anna, L. Machado, B. Intropidi, P. Vogt and J. Assunção (2021, December 9), "Credit for Investment in Brazilian Agriculture and the Role of the Brazilian Development Bank", Climate Policy Initiative, online: https://www.climatepolicyinitiative.org/publication/credit-for-investment-in-brazilian-agriculture-and-the-role-of-the-brazilian-development-bank/

91 BNDES (n.d.), "Mission, Vision and Values", online: https://www.bndes.gov.br/SiteBNDES/bndes/bndes_en/Institucional/The_BNDES/mission.html.

92 Ministerio da Fazenda (2023, October 19), "Ecological Transformation Plan – Inclusive and sustainable development to tackle climate change", online: https://www.gov.br/fazenda/pt-br/acesso-a-informacao/acoes-e-programas/transformacao-ecologica/english-version/documents/pte-19-10-2023-ecological-transformation-plan.pdf.

93 Feedback, Mighty Earth, BankTrack (2023, April), *A rotten business: how Barclays became the go-to bank for JBS, one of the world's most destructive meat corporations*, p. 4.

94 Feedback, Mighty Earth, BankTrack (2023, April), *A rotten business: how Barclays became the go-to bank for JBS, one of the world's most destructive meat corporations*, p. 4.

95 Global Witness (2023, September 20), "JBS S.A. Dual Listing on New York Stock Exchange: A Collective Warning of Risks to People, Planet and Investors", online: https://www.globalwitness.org/en/campaigns/forests/jbs-dual-listing-new-york-stock-exchange-risks-people-planet-and-investors/, viewed in September 2024.

96 Biller, D. and J. Goodman (2020, October 14), "Brazil Meatpacker Fined for Bribes that Fueled US Expansion", AP News, online: https://apnews.com/general-news-7cd768536da09ae6fde0e5df6f293997, viewed in September 2024.

97 Sedacca, M. (2022, February 4), "JBS Agrees to Pay Beef Wholesalers $52.5 Million in Latest Price-Fixing Settlement", The Counter, online: https://thecounter.org/jbs-price-fixing-settlement-meatpackers-52-million-antitrust/, viewed in September 2024.

98 Steinweg, T., G. Rijk and M. Piotrowski (2020, August), "JBS: Outsized Deforestation in Supply Chain, COVID-19 Poses Fundamental Business Risks", Chain Reaction Research, online: https://chainreactionresearch.com/wp-content/uploads/2020/08/JBS-CRR-Report-1.pdf.

99 Moye, C. (2022, June 23), "Cash Cow", Global Witness, online: https://www.globalwitness.org/en/campaigns/forests/cash-cow/, viewed in September 2024.

100 Alessi, G. (2022, September 15), "Gado criado ilegalmente em terra indígena no Pará abastece JBS e Frigol", Repórter Brasil, online: https://reporterbrasil.org.br/2022/09/gado-criado-ilegalmente-em-terra-indigena-no-para-abastece-jbs-e-frigol/

101 Institute for Agriculture and Trade Policy and Changing Markets Foundation (2022, November 15), "Emissions Impossible: Methane Edition", online: https://www.iatp.org/emissions-impossible-methane-edition, viewed in September 2024.

102 Alessi, G. and N. Hofmeister (2023, October 26), "Audits reveal irregularities by JBS in four Amazon states", Repórter Brasil, online: https://reporterbrasil.org.br/2023/10/auditorias-revelam-irregularidades-da-jbs-em-quatro-estados-da-amazonia/, viewed in July 2024;

Feedback, Mighty Earth, BankTrack (2023, April), *A rotten business: how Barclays became the go-to bank for JBS, one of the world's most destructive meat corporations*, pp. 11–12.

103 Mengardo, B. (2018, March 9), "TAC da Carne: MPF divulga auditorias, mas evita punições", Oeco, online: https://oeco.org.br/reportagens/tac-da-carne-mpf-divulga-auditorias-mas-evita-punicoes/, viewed in July 2024.

104 Barbosa, C. (2022, December 15), "For the second consecutive year, irregularities place JBS among the worst meatpacking plants for the MPF", Repórter Brasil, online: https://reporterbrasil.org.br/2022/12/pelo-segundo-ano-consecutivo-irregularidades-colocam-jbs-entre-piores-frigorificos-para-mpf/, viewed in July 2024;

Feedback, Mighty Earth, BankTrack (2023, April), *A rotten business: how Barclays became the go-to bank for JBS, one of the world's most destructive meat corporations*, p. 13.

105 Feedback, Mighty Earth, BankTrack (2023, April), *A rotten business: how Barclays became the go-to bank for JBS, one of the world's most destructive meat corporations*, pp. 11–12.

106 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 65.

107 Friends of the Earth and Profundo (2024, April), *Bull in the Climate Shop. Industrial Livestock Financing Sabotages Major U.S. Banks' Climate Commitments*, p. 16.

108 Feedback (2024), *Still Butchering the Planet: the big-name financiers bankrolling livestock corporations and climate change – 2024 update*, p. 11.

109 JBS (n.d.), "Sustainability – Climate Changes", online: https://jbs.com.br/en/sustainability/climate-changes/, viewed in September 2024.

110 RAN (2023, August 23), "SEC Petitioned to Investigate JBS, the World's Largest Meatpacker Ahead of IPO", online: https://www.ran.org/press-releases/sec-petitioned-to-investigate-jbs-the-worlds-largest-meatpacker-ahead-of-ipo/, viewed in July 2024.

111 Polansek, T. (2023, September 21), "JBS says Brazil needs mandatory cattle tracking to stop deforestation", Reuters, online: https://www.reuters.com/sustainability/jbs-says-brazil-needs-mandatory-cattle-tracking-stop-deforestation-2023-09-21/, viewed in September 2024.

112 Feedback, Mighty Earth, BankTrack (2023, April), *A rotten business: how Barclays became the go-to bank for JBS, one of the world's most destructive meat corporations*, p. 15.

113 Forests & Finance (2024, April 17), "Parakanã people demand BNDES to reforest devastated territory in Pará", online: https://forestsandfinance.org/news/povo-parakana-cobra-bndes-por-reflorestamento-de-territorio-devastado-no-para/, viewed in September 2024.

114 Moye, C. (2022, June 23), "Cash Cow", Global Witness, online: https://www.globalwitness.org/en/campaigns/forests/cash-cow/, viewed in September 2024.

115 Global Witness (2020, December), "Beef, Banks and the Brazilian Amazon", https://www.globalwitness.org/documents/20060/Beef_Banks_and_the_Brazilian_Amazon_EN_-_December_2020_low_res.pdf.

116 Forests & Finance (n.d.), ''Data Deep Dive'', online: https://forestsandfinance.org/data/, viewed in August 2024.

117 Neo Mondo (2024, August 22), "Organisações da sociedade civil pedem alinhamento entre regulações financeiras no Brasil em questões socioambientais e climáticas", online: https://neomondo.org.br/2024/08/22/organisacoes-da-sociedade-civil-pedem-alinhamento-entre-regulacoes-financeiras-no-brasil-em-questoes-socioambientais-e-climaticas/, viewed in August 2024.

118 Forests & Finance (n.d.), "Policy Scores", online: https://forestsandfinance.org/bank-policies/, viewed in September 2024.

119 Knijp, G., R. van Tilburg and A.Simic (2024, January), *Finding a way with nature*, p. 7.

120 United Nations Environment Program (2024, March), *Guidelines for Climate Target Settings for Banks*, Version 2,pp. 7–12.

121 B. Chen (2023, September 11), "What China's reforms mean for financial regulation", OMFIF, online: https://www.omfif.org/2023/09/what-chinas-reforms-mean-for-financial-regulation/, viewed in September 2024.

122 China Securities Regulatory Commission (n.d.), “Overview of CSRC”, CSRC official website http://www.csrc.gov.cn/csrc_en/c102023/common_zcnr.shtml?channelid=e9958c689bef4d468d81dc93c8d3479f , viewed in May 2024

123 Amstad, M. and Z. He (2018, October), “Chinese Bond Market and Interbank Market” in Amstad, Marlene, Sun Guofeng and Wei Xiong (ed.), *The Handbook of China’s Financial System*, online: https://bfi.uchicago.cn/wp-content/uploads/2019/10/BFI-WP-2019-Handbook.pdf, viewed in June 2024.

124 China Daily (2023, April 17), “Central bank reforms to strengthen monetary policy efficacy”, online: https://english.www.gov.cn/policies/policywatch/202304/17/content_WS643ca32ac6d03ffcca6ec573.html, viewed in September 2024.

125 State Council of China (2023, May 18), “*China establishes national financial regulatory administration”,* online: https://english.www.gov.cn/news/202305/18/content_WS6465bd1ac6d03ffcca6ed27f.html, viewed in May 2024.

126 CNSTOCK (2024, April), *Ministry of Finance: Improve the capital market tax system and improve policies that are conducive to the entry of medium- and long-term funds into the market* (Chinese), online: https://news.cnstock.com/news,bwkx-202404-5222170.htm, viewed in August 2024.

127 Ministry of Finance of China (2021, 20 February), *Directory of Central Financial Enterprises* (in Chinese), online: https://jrs.mof.gov.cn/gongzuotongzhi/202102/t20210219_3658752.htm, viewed in August 2024.

128 NDRC (n.d.), “Main Functions of the NDRC”, online: https://en.ndrc.gov.cn/aboutndrc/mainfunctions/, viewed in May 2024.

129 Huld, A. (2023, October 19), “Chinese Government Restructuring Explained – Changes to State Council Agencies”, China Brief, online: https://www.china-briefing.com/news/chinese-government-restructuring-explained-changes-to-state-council-agencies/, viewed in August 2024.

130 PBoC, NDRC, MII, MoF, MEE, NFRC and CSRC (2024, March 27), “*Guiding Opinions on Further Strengthening Financial Support for Green and Low Carbon Development”* (Chinese), online: http://www.pbc.gov.cn/goutongjiaoliu/113456/113469/5325946/index.html, viewed in May 2024.

131 Online: https://amr.sz.gov.cn/attachment/1/1391/1391247/11046587.pdf, viewed in May 2024.

132 Xue, Y. (2024, May 29), “Climate Change: China aims to introduce nationwide corporate ESG disclosure standards by 2030*”, South China Morning Post*, online: https://www.scmp.com/business/china-business/article/3264437/climate-change-china-aims-introduce-nationwide-corporate-esg-disclosure-standards-2030, viewed in May 2024.

133 Day, M. and Y. Liang (2022, June 16), “How China’s new complaints procedures can prevent ‘green’ ESG investment from harming local communities”, *South China Morning Post*, online: https://www.scmp.com/comment/opinion/article/3181704/how-chinas-new-complaints-procedures-can-prevent-green-esg, viewed in August 2024.

134 Online: https://www.amac.org.cn/hyyj/esgtz/ESGzc/202306/P020231126401865227973.pdf, viewed in May 2024.

135 Chu, P. (2024, April 20), “China stock exchanges mandate Sustainability Report for larger listed entities”, KPMG, online: https://kpmg.com/cn/en/home/insights/2024/04/china-stock-exchanges-mandate-sustainability-report-for-larger-listed-entities.html, viewed in August 2024.

136 Online: https://finance.eastmoney.com/a/202404253058071574.html, viewed in August 2024.

137 Biyo’o Ella, J. C. and M. Ngeunga (2020, September 16), « La culture d’hévéa au cœur d’un désastre écologique au Cameroun « , InfoCongo, online : https://infocongo.org/fr/la-culture-dhevea-au-coeur-dun-desastre-ecologique-au-cameroun/, viewed in May 2024.

138 Fritts, R. (2019, May 1), “Huge rubber plantation in Cameroon halts deforestation following rebuke”, online: https://news.mongabay.com/2019/05/huge-rubber-plantation-in-cameroon-halts-deforestation-following-rebuke/, viewed in May 2024.

139 Global Witness (2024, March), *The credit chainsaw: a review of how EU-based banks are pouring billions into deforestation*, p. 13.

140 Keller, G. et al. (2023, March 7), “Devastating supply chains”, Correctiv, online: https://correctiv.org/en/latest-stories/2023/04/05/eu-supply-chain-act-natural-rubber-cameroon-deforestation/, viewed in May 2024.

141 Global Witness (2022, June 16), ‘’Rubbed out: how European rubber impacts and financing have driven the destruction of climate-critical forests in west and Central Africa’’, online: https://www.globalwitness.org/en/campaigns/forests/rubbed-out/, viewed in April 2024.

142 Halcyon Agri (2023, April), *Annual Report, 2022*, pp. 3 and 19.

143 Osuna Orozszo, A. and M. Salber (2019, May), *Palmed off: an investigation into three industrial palm oil and rubber projects in Cameroon and the Republic of Congo*, Rainforest Foundation UK, p. 25.

144 UNESCO (n.d.), "Dja Faunal Reserve", online ; https://whc.unesco.org/en/list/407/, viewed in July 2024.

145 Greenpeace and APIFED (2018, July), "*'On nous a dit ne plus aller dans nos camps situés dans la forêt' – L'assaut de Sudcam sur les droits de l'homme"*, p. 6.

146 Keller, G. et all (2023, March 7), "Devastating supply chains", Correctiv, online: https://correctiv.org/en/latest-stories/2023/04/05/eu-supply-chain-act-natural-rubber-cameroon-deforestation/, viewed in May 2024.

147 Greenpeace and APIFED (2018, July), ""*On nous a dit ne plus aller dans nos camps situés dans la forêt" - L'assaut de Sudcam sur les droits de l'homme"*, p. 10.

148 Keller, G. et al (2023, March 7), "Devastating supply chains", Correctiv, online: https://correctiv.org/en/latest-stories/2023/04/05/eu-supply-chain-act-natural-rubber-cameroon-deforestation/, viewed in May 2024.

149 Corrie MacColl (n.d.), "Environment", online: https://www.corrie-maccoll.com/sustainability/environment/, viewed in July 2024.

150 Keller, G. et al (2023, March 7), "Devastating supply chains", Correctiv, online: https://correctiv.org/en/latest-stories/2023/04/05/eu-supply-chain-act-natural-rubber-cameroon-deforestation/, viewed in May 2024.

151 Forests & Finance (n.d.), ''Data Deep Dive'', online: https://forestsandfinance.org/data/, viewed on 27 August 2024.

152 Junhe Law Firm (June 2024), "Comments on the Draft Principles for Corporate Sustainability Disclosure – Basic Principles", online: https://www.junhe.com/legal-updates/2444 , viewed in August 2024.

153 McCormick, J. (2015), *European Union Politics*, second edition, London: Palgrave, pp. 155–230.

154 *Official Journal of the European Union* (2026, June 7), ''Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union'', *Information and Notices,* Volume 59, p. 150.

155 European Parliament and the Council of the European Union (2019, December 27), ''Regulation (EU) 2019/2175 amending Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (European Banking Authority), Regulation (EU) No 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), Regulation (EU) No 600/2014 on markets in financial instruments, Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, and Regulation (EU) 2015/847 on information accompanying transfers of funds'', *Official Journal of the European Union*, L 224: 1-145.
https://www.bcb.gov.br/en/financialstability/ruralcredit

156 European Parliament and the Council of the European Union (2010, December 15), ''Regulation (EU) 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC'', *Official Journal of the European Union*, L 331: 84-119.

157 European Parliament and the Council of the European Union (2010, December 15), ''Regulation (EU) 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC'', *Official Journal of the European Union*, L 331: 84-119, p. 91;

ESMA (n.d.), ''SMSG'', online: https://www.esma.europa.eu/about-esma/stakeholder-engagement/smsg, viewed in May 2024.

158 European Parliament and the Council of the European Union (2010, December 15), ''Regulation (EU) 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC'', *Official Journal of the European Union*, L 331: 48-83.

159 European Parliament and the Council of the European Union (2010, December 15), ''Regulation (EU) 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC'', *Official Journal of the European Union*, L 331: 48-83, p. 71.

160 European Parliament and the Council of the European Union (2010, December 15), ''Regulation (EU) 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No

716/2009/EC and repealing Commission Decision 2009/77/EC'', *Official Journal of the European Union*, L 331: 84-119, p. 107;

ESMA (N.d.), ''Board of Supervisors'', online: https://www.esma.europa.eu/about-esma/governance-structure/board-of-supervisors, viewed in May 2024;

European Parliament and the Council of the European Union (2010, December 15), ''Regulation (EU) 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/79/EC'', *Official Journal of the European Union*, L 331: 48-83, p. 72;

EIOPA (n.d.), ''Board of Supervisors'', online: https://www.eiopa.europa.eu/about/governance-structure/board-supervisors_en, viewed in May 2024.

161 European Parliament and the Council of the European Union (2019, December 27), ''Regulation (EU) 2019/2175 amending Regulation (EU) No 1093/2010 establishing a European Supervisory Authority (European Banking Authority), Regulation (EU) No 1094/2010 establishing a European Supervisory Authority (European Insurance and Occupational Pensions Authority), Regulation (EU) No 1095/2010 establishing a European Supervisory Authority (European Securities and Markets Authority), Regulation (EU) No 600/2014 on markets in financial instruments, Regulation (EU) 2016/1011 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds, and Regulation (EU) 2015/847 on information accompanying transfers of funds'', *Official Journal of the European Union*, L 224: 1-145, p. 2.

162 *Official Journal of the European Union* (2026, June 7), ''Consolidated versions of the Treaty on European Union and the Treaty on the Functioning of the European Union'', *Information and Notices,* Volume 59.

163 European Commission (2018, March 8), "Sustainable finance: Commission's Action Plan for a greener and cleaner economy", online: https://ec.europa.eu/commission/presscorner/detail/en/IP_18_1404, viewed in August 2024.

164 European Commission (n.d.), ''EU taxonomy for sustainable activities: what the EU is doing to create an EU-wide classification system for sustainable activities'', online: https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en, viewed in May 2024.

165 European Commission (2024, August), "Achievements of the von der Leyen Commission – the European Green Deal", online: https://ec.europa.eu/commission/presscorner/api/files/attachment/879227/3.%20European%20Green%20Deal.pdf.

166 European Commission (2021, May), *EU Biodiversity Strategy for 2030: bringing nature bank into our lives,* Luxembourg: Publications Office of the European Union.

167 European Commission (2020, January 14), ''Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on a Sustainable Europe Investment Plan: European Green Deal Investment Plan'', online: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52020DC0021, viewed in July 2024, p. 1;

European Commission (2021, May), *EU Biodiversity Strategy for 2030: bringing nature bank into our lives,* Luxembourg: Publications Office of the European Union, p. 22.

168 European Commission (n.d.), ''EU taxonomy for sustainable activities: what the EU is doing to create an EU-wide classification system for sustainable activities'', online: https://finance.ec.europa.eu/sustainable-finance/tools-and-standards/eu-taxonomy-sustainable-activities_en, viewed in May 2024.

169 European Parliament and the Council of the European Union (2020, June 22), ''Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088'', *Official Journal of the European Union*, L 198: 13-43, p. 29.

170 OECD (2023), *OECD Guidelines for Multinational Enterprises on Responsible Business Conduct*, OECD Publishing: Paris, France, https://doi.org/10.1787/81f92357-en;

United Nations (2011), *Guiding Principles on Business and Human Rights: Implementing the United Nations ''Protect, Respect, and Remedy'' Framework,* online: https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf.

171 European Parliament and the Council of the European Union (2020, June 22), ''Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088'', *Official Journal of the European Union*, L 198: 13-43, p. 27;

EU Technical Expert Group on Sustainable Finance (2020, March), ''Taxonomy Report: Technical Annex. Updated methodology & Updated Technical Screening Criteria'', online: https://finance.ec.europa.eu/system/files/2020-03/200309-sustainable-finance-teg-final-report-taxonomy-annexes_en.pdf, viewed in May 2024.

172 European Parliament and the Council of the European Union (2020, June 22), ''Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088'', *Official Journal of the European Union*, L 198: 13-43, p. 34.

173 European Parliament and the Council of the European Union (2023, November 21), ''Commission Delegated Regulation (EU) 2023/2486 establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to the sustainable use and protection of water and marine resources, to the transition to a circular economy, to pollution prevention and control, or to the protection and restoration of biodiversity and ecosystems and for determining whether that economic activity causes no significant harm to any of the other environmental objectives and amending Commission Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities'', *Official Journal of the European Union*, L 21:11,2023.

174 European Parliament and the Council of the European Union (2023, November 21), ''Commission Delegated Regulation (EU) 2023/2486 establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to the sustainable use and protection of water and marine resources, to the transition to a circular economy, to pollution prevention and control, or to the protection and restoration of biodiversity and ecosystems and for determining whether that economic activity causes no significant harm to any of the other environmental objectives and amending Commission Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities'', *Official Journal of the European Union*, L 21:11, 2023, p. 121.

175 European Parliament and the Council of the European Union (2023, November 21), ''Commission Delegated Regulation (EU) 2023/2486 establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to the sustainable use and protection of water and marine resources, to the transition to a circular economy, to pollution prevention and control, or to the protection and restoration of biodiversity and ecosystems and for determining whether that economic activity causes no significant harm to any of the other environmental objectives and amending Commission Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities'', *Official Journal of the European Union*, L 21:11,2023, p. 116.

176 European Parliament and the Council of the European Union (2023, November 21), ''Commission Delegated Regulation (EU) 2023/2486 establishing the technical screening criteria for determining the conditions under which an economic activity qualifies as contributing substantially to the sustainable use and protection of water and marine resources, to the transition to a circular economy, to pollution prevention and control, or to the protection and restoration of biodiversity and ecosystems and for determining whether that economic activity causes no significant harm to any of the other environmental objectives and amending Commission Delegated Regulation (EU) 2021/2178 as regards specific public disclosures for those economic activities'', *Official Journal of the European Union*, L 21:11., 2023, p. 116.

177 EU Technical Expert Group on Sustainable Finance (2020, March), ''Taxonomy Report: Technical Annex. Updated methodology & Updated Technical Screening Criteria'', p. 43, online: https://finance.ec.europa.eu/system/files/2020-03/200309-sustainable-finance-teg-final-report-taxonomy-annexes_en.pdf, viewed in May 2024.

178 European Parliament and the Council of the European Union (2021, July 6), ''Commission Delegated Regulation (EU) 2021/2178 supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council by specifying the content and presentation of information to be disclosed by undertakings subject to Articles 19a or 29a of Directive 2013/34/EU concerning environmentally sustainable economic activities, and specifying the methodology to comply with that disclosure obligation", OJ, L 443: 10.12.2021, p. 13.

179 European Parliament and the Council of the European Union (2020, June 22), ''Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088'', *Official Journal of the European Union*, L 198: 13-43, p. 42.

180 Platform on Sustainable Finance (2022, February), ''Final Report on Social Taxonomy'', online: https://commission.europa.eu/system/files/2022-03/280222-sustainable-finance-platform-finance-report-social-taxonomy.pdf, viewed in July 2024.

181 Finance Watch (2023, June 26), ''Open letter: Do not lose momentum on the Social Taxonomy'', online: https://www.finance-watch.org/wp-content/uploads/2023/07/Open-letter-Social-Taxonomy.pdf, viewed in July 2024;

Funds Europe (2022, October 18), ''Social taxonomy: Is the shelving of the EU's social taxonomy all gloom for the financial sector?'', online: https://www.funds-europe.com/shelving-eu-social-taxonomy-financial-sector/, viewed in July 2024.

182 European Parliament and the Council of the European Union (2023, November 30), ''Regulation (EU) 2023/2631 on European Green Bonds and optional disclosures for bonds marketed as environmentally sustainable and for sustainability-linked bonds, *Official Journal of the European Union*, L 30:11.2023, pp. 1–68.

183 European Commission (2018, March 8), ''Press release - Sustainable Finance: Commission's Action Plan for a Greener and Cleaner Economy'', Brussels, Belgium: European Commission.

184 European Parliament and the Council of the European Union (2019, December 9), ''Regulation (EU) 2019/2088 on sustainability-related disclosures in the financial services sector'', *Official Journal of the European Union*, L 317: 1-16, p. 9.

185 European Parliament and the Council of the European Union (2019, December 9), ''Regulation (EU) 2019/2088 on sustainability-related disclosures in the financial services sector'', *Official Journal of the European Union*, L 317: 1-16, p. 10.

186 European Parliament and the Council of the European Union (2019, December 9), ''Regulation (EU) 2019/2088 on sustainability-related disclosures in the financial services sector'', *Official Journal of the European Union*, L 317: 1-16, pp. 5 and 12.

187 European Commission (2022, September 9), ''Answers to questions on the interpretation of Regulation (EU) 2019/2088, submitted by the European Supervisory Authorities'', online: https://www.esma.europa.eu/sites/default/files/2023-04/Answers_to_questions_on_the_interpretation_of_Regulation_%28EU%29_20192088.PDF, viewed in June 2024.

188 European Commission (2022, September 9), ''Answers to questions on the interpretation of Regulation (EU) 2019/2088, submitted by the European Supervisory Authorities'', online: https://www.esma.europa.eu/sites/default/files/2023-04/Answers_to_questions_on_the_interpretation_of_Regulation_%28EU%29_20192088.PDF, viewed in June 2024.

189 Matter Insights (2023, May), ''Dividing Lines: Sustainability analysis of the largest SFDR Article 8 and 9 EFTs'', online: https://4675084.fs1.hubspotusercontent-na1.net/hubfs/4675084/Matter_Dividing_Lines_Whitepaper.pdf, viewed in June 2024.

190 ESMA (2024, May 14), *Final Report: Guidelines on funds' names using ESG or sustainability-related terms*, Paris: European Securities Markets Authority, p. 56.

191 European Parliament and the Council of the European Union (2014, November 15), ''Directive 2014/95/EU amending Directive 2013/34/EU as regards disclosure of non-financial and diversity information by certain large undertakings and groups'', *Official Journal of the European Union*, L 330: 1-9.

192 European Parliament and the Council of the European Union (2023, December 22), ''Commission Delegated Regulation (EU) 2023/2772 supplementing Directive 2013/34/EU as regards sustainability reporting standards'', *Official Journal of the European Union*, OJ, L: 22.12.2023, pp. 1–284.

193 European Commission (n.d.), ''Questions and answers on the adoption of European Sustainability Reporting Standards'', online: https://ec.europa.eu/commission/presscorner/detail/en/qanda_23_4043, viewed in May 2024.

194 European Commission (n.d.), ''Questions and answers on the adoption of European Sustainability Reporting Standards'', online: https://ec.europa.eu/commission/presscorner/detail/en/qanda_23_4043, viewed in May 2024.

195 European Parliament and the Council of the European Union (2023, December 22), ''Commission Delegated Regulation (EU) 2023/2772 supplementing Directive 2013/34/EU as regards sustainability reporting standards'', *Official Journal of the European Union*, OJ, L: 22.12.2023, p. 5.

196 European Parliament and the Council of the European Union (2023, December 22), ''Commission Delegated Regulation (EU) 2023/2772 supplementing Directive 2013/34/EU as regards sustainability reporting standards'', *Official Journal of the European Union*, OJ, L, 22:12.2023, p. 133.

197 EFRAG (n.d.), ''EFRAG Sector Specific ESRS'', online: https://www.efrag.org/lab5, viewed in May 2024.

198 European Parliament and the Council of the European Union (2023, December 22), ''Commission Delegated Regulation (EU) 2023/2772 supplementing Directive 2013/34/EU as regards sustainability reporting standards'', *Official Journal of the European Union*, OJ, L: 22.12.2023, p. 137.

199 European Parliament and the Council of the European Union (2023, December 22), ''Commission Delegated Regulation (EU) 2023/2772 supplementing Directive 2013/34/EU as regards sustainability reporting standards'', *Official Journal of the European Union*, OJ, L: 22.12.2023, p. 136.

200 European Parliament and the Council of the European Union (2023, December 22), ''Commission Delegated Regulation (EU) 2023/2772 supplementing Directive 2013/34/EU as regards sustainability reporting standards'', *Official Journal of the European Union*, OJ, L: 22.12.2023, p. 20.

201 European Parliament and the Council of the European Union (2023, December 22), ''Commission Delegated Regulation (EU) 2023/2772 supplementing Directive 2013/34/EU as regards sustainability reporting standards'', *Official Journal of the European Union*, OJ, L: 22.12.2023, p. 34.

202 European Parliament and the Council of the European Union (2022, December 16), ''Directive (EU) 2022/2464 amending Regulation (EU) No 537/2014, Directive 2004/109/EC, Directive 2006/43/EC and Directive 2013/34/EU, as regards corporate sustainability reporting'', *Official Journal of the European Union*, OJ, L: 16.12.2022, pp. 59–60.

203 European Parliament and the Council of the European Union (2023, June 9), ''Regulation (EU) 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010'', *Official Journal of the European Union,* L 150: 206-247, p. 220.

204 European Parliament and the Council of the European Union (2023, June 9), ''Regulation (EU) 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010'', *Official Journal of the European Union,* L 150: 206-247, p. 222.

205 European Parliament and the Council of the European Union (2023, June 9), ''Regulation (EU) 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010'', *Official Journal of the European Union,* L 150: 206-247, p. 225.

206 European Parliament and the Council of the European Union (2023, June 9), ''Regulation (EU) 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010'', *Official Journal of the European Union,* L 150: 206-247, p. 226.

207 European Parliament and the Council of the European Union (2023, June 9), ''Regulation (EU) 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010'', *Official Journal of the European Union,* L 150: 206-247, pp. 226–7.

208 European Parliament and the Council of the European Union (2023, June 9), ''Regulation (EU) 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010'', *Official Journal of the European Union,* L 150: 206-247, pp. 233–4.

209 European Parliament and the Council of the European Union (2023, June 9), ''Regulation (EU) 2023/1115 on the making available on the Union market and the export from the Union of certain commodities and products associated with deforestation and forest degradation and repealing Regulation (EU) No 995/2010'', *Official Journal of the European Union,* L 150: 206-247, p. 240.

210 Council of the European Union (2024, March 15), ''Interinstitutional File: 2022/0051 (COD) Proposal for a Directive of the European Parliament and of the Council of the European Union on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937'', p. 113.

211 European Parliament (2024, April 24), ''European Parliament legislative resolution of 24 April 2024 on the proposal for a directive of the European Parliament and of the Council on Corporate Sustainability Due Diligence and amending Directive (EU) 2019/1937'', p. 224.

212 Gameiro, M. and B. Patentreger (2023), *Saving the Cerrado: Why Bunge, supermarkets and governments must act fast. Record deforestation in the Cerrado slips through the cracks of new EU Deforestation Regulation*, Mighty Earth, p. 25.

213 Gameiro, M. and B. Patentreger (2023), *Saving the Cerrado: Why Bunge, supermarkets and governments must act fast. Record deforestation in the Cerrado slips through the cracks of new EU Deforestation Regulation*, Mighty Earth, p. 26.

214 Global Witness (2024, March), *The credit chainsaw: a review of how EU-based banks are pouring billions into deforestation*, p. 14.

215 Global Witness (2024, March), *The credit chainsaw: a review of how EU-based banks are pouring billions into deforestation*, p. 14.

216 Mighty Earth (2022, July), *Promises, Promises! Analysis of European Supermarkets' Implementation of the Retail Soy Group's Roadmap to End Deforestation Connected to Meat*, p. 11.

217 Rainforest Foundation and Harvest (2022, February), *The State of the Soy Industry*, pp. 6 and 21.

218 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 59.

219 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 58.

220 WWF (n.d.), “Cerrado”, online: https://www.worldwildlife.org/places/cerrado;

https://www.embrapa.br/busca-de-noticias/-/noticia/18152197/diversidade-biologica-do-bioma-cerrado-e-a-segunda-maior-do-brasil.

221 Phys.org (2024, May 28), “Deforestation in Brazil's Cerrado higher than in Amazon: Report”, online: https://phys.org/news/2024-05-deforestation-brazil-cerrado-higher-amazon.html#google_vignette, viewed in July 2024.

222 Earthsight (2022, February 19), “Revealed: US agribusiness giants' soy linked to stolen indigenous land and murder in Brazil”, online: https://www.earthsight.org.uk/news/US-agribusiness-soy-linked-to-stolen-indigenous-land, viewed in May 2024.

223 Bunge (2022, July 26), “Letter to Earthsight”, online: https://www.earthsight.org.uk/media/download/1404, viewed in September 2024.

224 Environmental Investigation Agency (2022, December 13), “Some of the worst palm oil deforesters in 2022 are supplying major international companies”, online: https://eia-international.org/news/some-of-the-worst-palm-oil-deforesters-in-2022-are-supplying-major-international-companies/, viewed in September 2024.

225 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 59.

226 Forests & Finance (n.d.), ‘’Data Deep Dive’’, online: https://forestsandfinance.org/data/, viewed on 27 August 2024.

227 Platform on Sustainable Finance (2022, March), ‘’The extended environmental taxonomy: Final report on taxonomy extension options supporting a sustainable transition’’, online: https://finance.ec.europa.eu/system/files/2022-03/220329-sustainable-finance-platform-finance-report-environmental-transition-taxonomy_en.pdf, viewed in May 2024.

228 Holl, K.D. and T.M. Aide (2011), ‘’When and where to actively restore ecosystems?’’, *Forest Ecology and Management,* 261(10): 1558–68.

229 WWF (2021), “Five reasons to oppose the inclusion of gas and nuclear power in the EU Taxonomy”, online: https://wwfeu.awsassets.panda.org/downloads/external_briefing_gas_nuclear__indd.pdf, viewed in August 2024.

230 European Parliament and the Council of the European Union (2020, June 22), ‘’Regulation (EU) 2020/852 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088’’, *Official Journal of the European Union*, L 198: 13-43, p. 25.

231 Platform on Sustainable Finance (2022, February), ‘’Final Report on Social Taxonomy’’, online: https://commission.europa.eu/system/files/2022-03/280222-sustainable-finance-platform-finance-report-social-taxonomy.pdf, viewed in July 2024.

232 Joosten, T. et al. (2022, November 29), ‘’De helft van Europa's ‘donkergroene’ fondsen investeert in de fossiele industrie of de luchtvaart’’, Follow the Money, online: https://www.ftm.nl/artikelen/de-helft-van-europas-donkergroene-fondsen-investeert-in-fossiel-of-luchtvaart?share=4NdrCMrbugZvI1ZV8UGGSy6H9AiohYGEGYKvnuGYlcoBq79%2BAAace%2FlQHFBSlIc%3D, viewed in June 2024;

Bindman, P. and E. Mendonça (2024, August 2), “ESG funds funnel millions into forest-risk company”, Global Witness, online: https://www.globalwitness.org/en/campaigns/forests/esg-funds-funnel-millions-forest-risk-company/, viewed in August 2024.

233 Marsden, L., J. Ryan-Collins, J. Abrams and T. Lenton (2024), *Ecosystem tipping points: Understanding risks to the economy and financial system*, UCL Institute for Innovation and Public Purpose, Policy Report 2024/03.

234 République Française (2017 , March 28), "LOI no 2017-399 du 27 mars 2017 relative au devoir de vigilance des sociétés mères et des entreprises donneuses d'ordre ", *Journal Officiel de La République Française,* no 0074 du 28 Mars 2017.

235 Securities Exchange Commission (2023, May 25), "Frequently Asked Questions About Form 13F", online: https://www.sec.gov/divisions/investment/13ffaq, viewed in August 2024.

236 Securities Exchange Commission (2024, June 5), "About EDGAR", online: https://www.sec.gov/submit-filings/about-edgar", viewed in August 2024.

237 Droboniku, G. (2013, July), "Issue Brief: Rule 144A Securities", California Debt and Investment Advisory Commission, online: https://www.treasurer.ca.gov/cdiac/issuebriefs/201307.pdf.

238 Securities Exchange Commission (2021, March 4), *SEC announces enforcement task force focused on climate and ES issues*.

239 Securities Exchange Commission (2024, March), "The Enhancement and Standardisation of Climate-Related Disclosures for Investors", online: https://www.sec.gov/files/rules/final/2024/33-11275.pdf.

240 Cleveland-Peck, P. and D. Tokar (2024, March 18), "U.S. Appeals Court Temporarily Halts SEC Climate-Disclosure Rules", *Wall Street Journal*, online: https://www.wsj.com/articles/u-s-appeals-court-temporarily-halts-sec-climate-disclosure-rules-456f2f4c, viewed in September 2024.

241 Bell, D., R. Ben-Tzur and A.C. Smith (2024, September 1), "SEC Files Brief in Support of Climate Disclosure Rules", Harvard Law School Forum on Corporate Governance, online: https://corpgov.law.harvard.edu/2024/09/01/sec-files-brief-in-support-of-climate-disclosure-rules/, viewed in September 2024.

242 Securities Exchange Commission (2024, March), "The Enhancement and Standardisation of Climate-Related Disclosures for Investors", online: https://www.sec.gov/files/rules/final/2024/33-11275.pdf, p 23108.

243 Climate Advisers (2022, June 17), ''Comments to support the Security Exchange Commission's proposed rules for expanded climate transparency'', viewed in May 2024.

244 Institute for Agriculture and Trade Policy (2022, November 15), ''Emissions Impossible: Methane Edition'', online: https://www.iatp.org/emissions-impossible-methane-edition, viewed in July 2024.

245 ESG Dive (2024, March 6), ''SEC drops scope 3 from final climate rule, takes phased approach to scope 1 and 2 reporting'', online: https://www.esgdive.com/news/sec-final-climate-rule-scope-3-out-phased-approach-scope-1-scope-2/709420/#:~:text=An%20SEC%20spokesperson%20said%20scope,reliability%20of%20scope%203%20data, viewed in July 2024.

246 McGowan, J. (2024, July 15), "California Moves to Delay Corporate Climate Reporting Requirement until 2028", *Forbes*, online: https://www.forbes.com/sites/jonmcgowan/2024/07/15/california-moves-to-delay-corporate-climate-reporting-requirement-until-2028/, viewed in September 2024.

247 McGowan, J. (2024, July 15), "California Moves to Delay Corporate Climate Reporting Requirement until 2028", Forbes, online: https://www.forbes.com/sites/jonmcgowan/2024/07/15/california-moves-to-delay-corporate-climate-reporting-requirement-until-2028/, viewed in September 2024.

248 Persefoni (2024, September 11), "California SB 253 and SB 261: What Businesses Need to Know", online: https://www.persefoni.com/blog/california-sb253-sb261, viewed in September 2024.

249 Guidehouse (2023, October 17), ''SEC issues new rule aimed at protecting against greenwashing'', viewed in April 2024.

250 Securities and Exchange Commission (2023, October), *Final Rule: Investment Company Names*, p. 240.

251 Environmental Investigation Agency (2008), "The U.S. Lacey Act – Frequently Asked Questions About the World's First Ban on Trade in Illegal Wood", online: https://wwfint.awsassets.panda.org/downloads/eia_lacey_faqii.pdf.

252 United States Congress (2021, June), *Forest Act of 2021*, pp. 7–35.

253 Alecci, S. and B. Medina (2023, October 26), "US 'perfect playground' for laundering money linked to environmental crimes, new report finds", International Consortium of Investigative Journalists (IICJ), online: https://www.icij.org/investigations/deforestation-inc/us-perfect-playground-for-laundering-money-linked-to-environmental-crimes-new-report-finds/

254 Krueger, L. (2024, May 16), "TREES Act Passes Both Houses of the Legislature", New York State Senate, online: https://www.nysenate.gov/newsroom/video/liz-krueger/trees-act-passes-both-houses-legislature.

255 Lakhani, N. (2023, October 12), "'Our world hangs by a thread': Indigenous activist asks US agri giant to stop destroying Amazon rainforest", *Guardian*, online: https://www.theguardian.com/environment/2023/oct/12/amazon-rainforest-cargill-indigenous-activist-destruction, viewed in May 2024.

256 Feedback (2024), *Still Butchering the Planet: the big-name financiers bankrolling livestock corporations and climate change – 2024 update*, p. 12.

257 Feedback (2024), *Still Butchering the Planet: the big-name financiers bankrolling livestock corporations and climate change – 2024 update*, p. 12;

Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 63.

258 Forests & Finance (2023, December), *Banking on Biodiversity Collapse*, p. 42.

259 CMG Partners (2019, June 14), "Inside the Cargill Familiy", online: https://cmgpartners.ca/cargill/, viewed in July 2024.

260 Global Witness (2024, March), *The credit chainsaw: a review of how EU-based banks are pouring billions into deforestation*, p. 10.

261 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 61.

262 Mighty Earth (2022, July), *Promises, Promises! Analysis of European Supermarkets' Implementation of the Retail Soy Group's Roadmap to End Deforestation Connected to Meat*, p. 14.

263 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 61.

264 Mighty Earth (2022, July), *Promises, Promises! Analysis of European Supermarkets' Implementation of the Retail Soy Group's Roadmap to End Deforestation Connected to Meat*, p. 11.

265 Cargill (2023, November 27), "Cargill Announces Commitment to Eliminate Deforestation and Land Conversion in Brazil, Argentina and Uruguay by 2025", online: https://www.cargill.com/2023/cargill-announces-commitment-to-eliminate-deforestation, viewed in September 2024.

266 Haidar, D. (2023, September 25), "Justiça condena Cargill por trabalho escravo e infantil de fornecedores de cacau", Reporter Brasil, online: https://reporterbrasil.org.br/2023/09/justica-condena-cargill-por-trabalho-escravo-e-infantil-de-fornecedores-de-cacau/, viewed in August 2024;

Tolajian, L. (2022, October 29), "Your Halloween chocolate may have been harvested by children forced to work in Africa", USA Today, online: https://eu.usatoday.com/story/opinion/2022/10/29/halloween-candy-chocolate-may-tainted-forced-child-labor/7896991001/, viewed in August 2024.

267 Stand.Earth (n.d.), "Cargill Inc: A Leader in Destruction", online: https://burninglegacy.org/, viewed in August 2024.

268 Mano, A. (2023, October 3), "Cargill faces Brazil criminal probe over Amazon port project", Reuters, online: https://www.reuters.com/markets/commodities/cargill-faces-brazil-criminal-probe-over-amazon-port-project-2023-10-03/, viewed in May 2024.

269 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 61.

270 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 61.

271 Greenpeace International et al. (2024, March), *Bankrolling Ecosystem Destruction: the EU must stop the cash flow to businesses destroying nature*, p. 63.

272 Forests & Finance (n.d.), ''Data Deep Dive'', online: https://forestsandfinance.org/data/, viewed in August 2024.

273 Dentons (2023, September 6), ''Changes to the SEC Funds Names Rule Impacts ESG Investment'', online: https://www.dentons.com/en/insights/alerts/2023/september/27/changes-to-the-sec-fund-names-rule-impacts-esg-investment, viewed in July 2024.

274 BioFin (2024, March), "How Can Biodiversity Finance Plans Support NBSAPs?", UNDP – Biodiversity Finance Initiative, online:

https://www.biofin.org/sites/default/files/content/knowledge_products/BFPs%20and%20NBSAPs%20En%20Online%20FNL%20NEW.pdf.

275 BIC, BankTrack, Friends of the Earth US and RAN (2023, June), "How Should Financiers Align with the Global Biodiversity Framework?–- Five Key Principles", online: https://forestsandfinance.org/publications/civil-society-calls-on-both-public-and-private-financial-institutions-to-align-with-the-global-biodiversity-framework/

276 Dikau, S. and U. Volz, "Central bank mandates, sustainability objectives and the promotion of green finance", *Ecological Economics*, Volume 184, 2021, 107022, ISSN 0921-8009, online: https://doi.org/10.1016/j.ecolecon.2021.107022, viewed in August 2024.

277 NGFS (2022, March), "Central banking and supervision in the biosphere: An agenda for action on biodiversity loss, financial risk and system stability – Final Report of the NGFS-INSPIRE Study Group on Biodiversity and Financial Stability", Paris, France: NGFS / Banque de France, p. iv.

278 Accountability Framework Initiative (n.d.), "Definitions – Corporate Group", online: "https://www.accountability-framework.org/use-the-accountability-framework/definitions/corporate-group/, viewed in September 2024.

279 Contreras, M.F., et al. (2024, July), "Deforestation and Conversion – An Introductory Guide for Central Bankers, Financial Regulators and Supervisors", Gand (Switzerland): WWF, online: https://wwfint.awsassets.panda.org/downloads/wwf-deforestation-guide-central-banking.pdf

280 Finance Watch / Reset Finance (n.d.), "Key Reforms to Reset the Financial System in 2024–2029: A list of civil society policy reforms to reinforce EU financial regulation", Brussels: Belgium, p. 5.

281 Finance Watch / Reset Finance (n.d.), Key Reforms to Reset the Financial System in 2024-2029: A list of civil society policy reforms to reinforce EU financial regulation", Brussels: Belgium, p. 5.

282 Banks & Biodiversity (n.d.), "Banks and Biodiversity No Go Areas", online: https://banksandbiodiversity.org/the-banks-and-biodiversity-no-go-areas/, viewed in August 2024.

283 Finance Watch / Reset Finance (n.d.), "Key Reforms to Reset the Financial System in 2024–2029: A list of civil society policy reforms to reinforce EU financial regulation", Brussels: Belgium, p. 3.

284 Utrecht University School of Economics – Sustainable Finance Lab / WWF (2024, January), "Finding a Way with Nature: How central banks and supervisors can start acting on nature-related risks", Utrecht, The Netherlands: Utrecht University, p. 6.

285 BCBS (n.d.), "The Basel Committee – overview", online: https://www.bis.org/bcbs/index.htm, viewed in September 2024.

286 Utrecht University School of Economics – Sustainable Finance Lab / WWF (2024, January), "Finding a Way with Nature: How central banks and supervisors can start acting on nature-related risks", Utrecht, The Netherlands: Utrecht University, p. 53.

287 Altavilla, C., M. Boucinha, M. Pagano and A. Polo (2024, August), "Climate risk, bank lending and monetary policy", Working Paper Series No. 2969, European Central Bank, online: https://www.ecb.europa.eu/pub/pdf/scpwps/ecb.wp2969~0f4c56a156.et.pdf.

288 FEPS Europe (2018, July), "Can Green Quantitative Easing (QE) Reduce Global Warming?", online: https://feps-europe.eu/publication/621-can-green-quantitative-easing-qe-reduce-global-warming/, viewed in July 2024.

289 Utrecht University School of Economics – Sustainable Finance Lab / WWF (2024, January), "Finding a Way with Nature: How central banks and supervisors can start acting on nature-related risks", Utrecht, The Netherlands: Utrecht University, p. 6.

290 NGFS (2022, March), "Central banking and supervision in the biosphere: An agenda for action on biodiversity loss, financial risk and system stability – Final Report of the NGFS-INSPIRE Study Group on Biodiversity and Financial Stability", Paris, France: NGFS / Banque de France, p. 74.

291 Contreras, M.F., et al. (2024, July), "Deforestation and Conversion – An Introductory Guide for Central Bankers, Financial Regulators and Supervisors", Gand (Switzerland): WWF, online: https://wwfint.awsassets.panda.org/downloads/wwf-deforestation-guide-central-banking.pdf

292 Accountability Framework Initiative (n.d.), "Definitions – Corporate Group", online:"https://accountability-framework.org/use-the-accountability-framework/definitions/corporate-group/, viewed in September 2024.

293 Utrecht University School of Economics – Sustainable Finance Lab / WWF (2024, January), "Finding a Way with Nature: How central banks and supervisors can start acting on nature-related risks", Utrecht, The Netherlands: Utrecht University, p. 5.

294 United Nations (2011), “Guiding Principles on Business and Human Rights: Implementing the United Nations ‘’Protect, Respect, and Remedy’’ Framework”, online: https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf.

295 NGFS (2022, March), “Central banking and supervision in the biosphere: An agenda for action on biodiversity loss, financial risk and system stability – Final Report of the NGFS-INSPIRE Study Group on Biodiversity and Financial Stability”, Paris, France: NGFS / Banque de France, p. 80.

296 Finance Watch / Reset Finance (n.d.), *Key Reforms to Reset the Financial System in 2024–2029: A list of civil society policy reforms to reinforce EU financial regulation*, Brussels: Belgium, p. 5.

297 Finance Watch / Reset Finance (n.d.), *Key Reforms to Reset the Financial System in 2024–2029: A list of civil society policy reforms to reinforce EU financial regulation*, Brussels: Belgium, p. 5.

298 Forests & Finance (2024, May), “Regulating Finance–- A precondition to implementing the Global Biodiversity Framework”, online: https://forestsandfinance.org/news/regulating-finance/

299 Finance Watch / Reset Finance (n.d.), *Key Reforms to Reset the Financial System in 2024–2029: A list of civil society policy reforms to reinforce EU financial regulation*, Brussels: Belgium, p. 5.

300 United Nations (2011), “Guiding Principles on Business and Human Rights: Implementing the United Nations ‘’Protect, Respect, and Remedy’’ Framework”, online: https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf.

301 United Nations (2011), “Guiding Principles on Business and Human Rights: Implementing the United Nations ‘’Protect, Respect, and Remedy’’ Framework”, online: https://www.ohchr.org/sites/default/files/documents/publications/guidingprinciplesbusinesshr_en.pdf.

302 Forests & Finance (2024, May), “Regulating Finance – A precondition to implementing the Global Biodiversity Framework”, online: https://forestsandfinance.org/news/regulating-finance/

303 Costa, M. (2024, June 18), “ECB to fine banks that have missed climate goals“, Green Central Banking, online: https://greencentralbanking.com/2024/06/18/ecb-climate-fine/, viewed in August 2024.

304 Contreras, M.F., et al. (2024, July), “Deforestation and Conversion – An Introductory Guide for Central Bankers, Financial Regulators and Supervisors”, Gand (Switzerland): WWF, online: https://wwfint.awsassets.panda.org/downloads/wwf-deforestation-guide-central-banking.pdf

305 IPBES (n.d.), ”About – What is IPBES”, online: https://www.ipbes.net/about, viewed in September 2024.

306 Dempsey, J., A. Irvine-Broque, J. Christiansen and P. Bigger, “Thin and Shallow: Financial Instruments for Biodiversity Conservation and Their Outlook”, Penang (Malaysia): Third World Network, online: https://www.twn.my/title2/books/Thin%20and%20Shallow.htm.

307 Yu III, V.P. (2021, April), “Green Deals and Implications for the Global South”, Penang (Malaysia): Third World Network, online: https://www.twn.my/title/end/pdf/end20.pdf.

Appendix 1 Regulations assessment framework

Objective

The objective of the regulations assessment framework is to assess how well the regulatory environment for the financial sector in the selected jurisdictions is aligned with the 2030 targets of the Global Biodiversity Framework (GBF).

2030 targets of the GBF

The GBF includes 23 targets for 2030, grouped in three groups as shown below:[i]

1. Reducing threats to biodiversity
    1. Plan and Manage all Areas to Reduce Biodiversity Loss
    2. Restore 30% of all Degraded Ecosystems
    3. Conserve 30% of Land, Waters and Seas
    4. Halt Species Extinction, Protect Genetic Diversity and Manage Human–Wildlife Conflicts
    5. Ensure Sustainable, Safe and Legal Harvesting and Trade of Wild Species
    6. Reduce the Introduction of Invasive Alien Species by 50% and Minimise Their Impact
    7. Reduce Pollution to Levels that Are not Harmful to Biodiversity
    8. Minimise the Impacts of Climate Change on Biodiversity and Build Resilience

2. Meeting people's needs through sustainable use and benefit-sharing

    9. Manage Wild Species Sustainably to Benefit People
    10. Enhance Biodiversity and Sustainability in Agriculture, Aquaculture, Fisheries and Forestry
    11. Restore, Maintain and Enhance Nature's Contributions to People
    12. Enhance Green Spaces and Urban Planning for Human Well-Being and Biodiversity
    13. Increase the Sharing of Benefits from Genetic Resources, Digital Sequence Information and Traditional Knowledge

3. Tools and solutions for implementation and mainstreaming

    14. Integrate Biodiversity in Decision-Making at Every Level
    15. Businesses Assess, Disclose and Reduce Biodiversity-Related Risks and Negative Impacts
    16. Enable Sustainable Consumption Choices to Reduce Waste and Overconsumption
    17. Strengthen Biosafety and Distribute the Benefits of Biotechnology
    18. Reduce Harmful Incentives by at Least $500 Billion per Year and Scale up Positive Incentives for Biodiversity
    19. Mobilize $200 Billion per Year for Biodiversity from all Sources, Including $30 Billion Through International Finance
    20. Strengthen Capacity-Building, Technology Transfer and Scientific and Technical Cooperation for Biodiversity
    21. Ensure that Knowledge Is Available and Accessible to Guide Biodiversity Action
    22. Ensure Participation in Decision-Making and Access to Justice and Information Related to Biodiversity for all
    23. Ensure Gender Equality and a Gender-Responsive Approach for Biodiversity Action

Assessment framework

The assessment framework consists of three criteria, based on GBF targets. For each of the three groups of GBF targets, one target is selected. An interpretation is made for each target on what

i Convention on Biological Diversity (n.d.), "2030 Targets (with Guidance Notes)", online: https://www.cbd.int/gbf/targets

this target should mean for financial regulations. Table 13 provides an overview of the selected targets and the interpretations for financial regulation.

Table 13 Regulations assessment framework: Assessment criteria

Group	Target		Assessment criteria for financial regulation
1	1	Plan and Manage all Areas to Reduce Biodiversity Loss	Financial regulations do not allow financing of, nor investing in, companies involved in conversion of natural landscapes.
2	10	Enhance Biodiversity and Sustainability in Agriculture, Aquaculture, Fisheries and Forestry	Financial regulations expect financial institutions to stimulate a just transition in the Agriculture, Aquaculture, Fisheries and Forestry sectors which supports the rights of workers, peasants, fisher folk, indigenous peoples, traditional and local communities.
3	15	Businesses Assess, Disclose and Reduce Biodiversity-Related Risks and Negative Impacts	Financial regulations require transparency of all financing and investment flows and full disclosure of biodiversity and social impacts of these flows.

Each of the three assessment criteria will be assigned a colour score, based on the scoring table shown in Table 14.

Table 14 Regulations assessment framework: Scoring table

Colour score	Assessment
Dark red	Financial regulations do not make any reference to the GBF target.
Light red	Financial regulations make a reference to a topic related to the GBF target, but only as a recommendation.
Yellow	Financial regulations require financial institutions to take relevant steps towards the GBF target.
Green	Financial regulations require financial institutions to align all their financing and investment decisions with the GBF target.

FORESTS
&FINANCE