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INSTITUTE OF FINANCE AND SUSTAINABILITY

Enhancing Financial Resilience: Identifying and Managing Nature-related Financial Risks

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About this Report:

This report and its findings are based on a combination of desktop research and in-depth interviews. Insights were drawn from interviews with seven institutions and subject matter experts, with findings systematically analysed and refined. The aim is to seek and provide actionable recommendations for identifying and managing nature-related financial risks, with a particular focus on enhancing decision-making frameworks for financial institutions and companies.

Summary

As global ecological degradation intensifies, nature-related risks such as biodiversity loss and resource scarcity have become systemic threats to long-term economic stability. Therefore, the disclosure framework developed by the Taskforce on Nature-related Financial Disclosures (TNFD) has garnered widespread attention globally since its launch. It provides a systematic approach for financial institutions and companies to identify, assess, and manage nature-related risks and opportunities. In September 2023, TNFD released its final recommendations, followed promptly in October by the accompanying LEAP approach, promoting the mainstreaming of nature into financial and risk decision-making.

This report focuses on the Chinese and UK markets, aiming to provide practical guidance for financial institutions and businesses in both countries to identify and manage nature-related risks. This report demonstrates how financial institutions and companies can integrate nature-related risks into their operational processes by analysing the four phases of the LEAP approach - Locate, Evaluate, Assess, Prepare - supplemented by the initial practices of three financial institutions, including Oxbury Bank, and two companies, such as Mengniu Dairy Company Limited. Furthermore, the report systematically outlines the challenges and opportunities faced by China and the UK in promoting nature-related financial disclosure across five dimensions: policy standards, capacity building, tools and methods, products and mechanisms, and international cooperation. Based on this, the report offers differentiated recommendations for central banks and other financial regulatory agencies, financial institutions, and businesses in both countries, aiming to guide financial capital flows towards nature-positive activities and jointly build a more resilient and sustainable economic future.

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1. TNFD LEAP Approach and Tools Used for Identifying and Managing Nature-related Financial Risks

Within the global economic landscape, business depends on nature for resources and services to sustain operations. Financial institutions provide financing for businesses often without adequately pricing in the risks posed by the degradation of the nature on which these businesses depend. If ecosystems falter, the economic models built upon them could collapse, jeopardizing financial returns. This report focuses on the Chinese and UK markets, aiming to help financial institutions and businesses in both countries better understand and address nature-related financial risks by outlining methods and tools for identifying such risks.

In September 2023, the Taskforce on Nature-related Financial Disclosures (TNFD) issued its final recommendations[1], building a comprehensive disclosure framework around the four pillars of Governance, Strategy, Risk and Impact Management, and Metrics and Targets, designed to promote the systematic integration of natural factors into financial decision-making and risk management by corporations and financial institutions. Central to the TNFD's disclosure framework is the principle of "double materiality", which requires organisations to disclose nature-related issues based on both financial and impact materiality:

- **Financial Materiality:** Based on the IFRS S1 of the International Sustainability Standards Board (ISSB), which focuses on the material impact of nature-related risks and opportunities on the organisation's financial position. According to the TNFD requirements, organisations should disclose material information about sustainability-related risks and opportunities that are expected to affect the organisation's outlook. Information is considered financially material if its omission or misstatement could cause capital market participants to make biased value judgments about the organisation[2].
- **Impact Materiality:** Emphasise the actual or potential impacts of the organisation on natural ecosystems and human society, and prioritise the disclosure of operations with significant negative effects on biodiversity degradation, natural resource depletion, and human rights protection. The TNFD proposes to adopt the Global Reporting Initiative (GRI) definitional criteria, which identify the topics that have the most significant economic, environmental and human rights impacts and are consistent with Target 15 of the Kunming-Montreal Global Biodiversity Framework (GBF).

To support the implementation of its final recommendations the TNFD released the LEAP approach in October 2023. This supplementary guidance is designed to help organisations identify, assess, manage, and disclose nature-related dependencies, impacts, risks, and opportunities. The LEAP approach consists of four phases:

1. **Locate:** Locate the interface of the organisation with nature;
2. **Evaluate:** Evaluate the dependencies and impacts of the organisation on nature;
3. **Assess:** Assess the nature-related risks and opportunities of the organisation;
4. **Prepare:** Prepare to respond to, and report on, material nature-related issues, aligned with the TNFD's recommended disclosures.

[1] Taskforce on Nature-related Financial Disclosures, *Recommendations of the Taskforce on Nature-related Financial Disclosures*, 2023, https://tnfd.global/publication/recommendations-of-the-taskforce-on-nature-related-financial-disclosures/
[2] International Financial Reporting Standards Foundation, *IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information*, 2023, https://www.ifrs.org/issued-standards/ifrs-sustainability-standards-navigator/ifrs-s1-general-requirements/

1.1 Locate

The Locate phase of the TNFD LEAP approach has been designed to enable organisations to identify where their business activities interface with nature. This involves systematic screening and prioritisation to define the key focus areas for the Evaluate and the Assess phase. Because nature-related dependencies, impacts, risks and opportunities are highly location specific, geographic location is one of the core screening dimensions, combined with sector and value chain analysis to form a multi-dimensional prioritisation framework.

For businesses, this phase will focus on three key screening dimensions: industry, value chain, and geographic location, systematically identifying natural connectivity interfaces. Financial institutions will focus on analyzing the industry, value chain, and geographic location within their investment portfolios. Specifically, this involves the following four steps:

1. Span of the business model and value chain (L1): Enterprises need to use internal asset data to clarify their own industry and the industry in which their value chain is located, identify upstream and downstream value chain activities, and locate their direct operating locations; financial institutions need to sort out the industries, value chains and geographical distribution involved in their investment portfolios, and clarify the industries in which funds are invested and the geographical locations of related business activities;

2. Dependency and impact screening (L2): After completing the L1 business mapping, companies need to compare the identified sectors, value chain stages and direct operational locations with reference sources such as ENCORE and SBTN's High-Impact Commodity List to determine which segments may have moderate or high dependencies and/or impacts on nature. Financial institutions, using tools such as ENCORE, conduct qualitative analyses to identify the sectors within their investment portfolios that have moderate or high dependencies and/or impacts on nature.

3. **Interface with nature (L3):** After identifying potential dependencies and impacts in L2, companies need to further identify geographic locations with potential moderate and high dependency and impact activities;

4. **Interface with sensitive locations (L4):** Companies need to assess whether activities in their direct operations and in value chains and sectors of moderate and high dependency and impact are in ecologically sensitive locations, based on the geographic location identified in L3. Financial institutions need to assess whether the activities of major clients or investees in their portfolios are located in ecologically sensitive areas.

1.1.1 Tools for the Locate Phase

In the Locate phase, companies and financial institutions can use a variety of data sources, tools and methodologies to identify the interfaces between their business activities and nature. This report uses IBAT and BIA as examples to illustrate their data sources, target users and key functional features in practical application.

Tool 1 Integrated Biodiversity Assessment Tool (IBAT)[3]

IBAT is a globally used tool developed by the IBAT Alliance, which consists of organisations such as the International Union for Conservation of Nature (IUCN) and the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC), and others. It aims to provide biodiversity data support to businesses and financial institutions, helping them identify, assess, and manage nature-related risks. The core function of IBAT includes the integration of global key biodiversity datasets (e.g., protected areas, endangered species distribution, ecosystem integrity, etc.) covering both terrestrial and marine areas.

In the Locate phase, IBAT is mainly used in L4, where companies and financial institutions can use IBAT's geospatial data to identify whether their business is located within ecologically sensitive areas (e.g., protected areas or endangered species habitats), and to identify the geographic distribution of potential risks.

Tool 2 Biodiversity Impact Assessment Tool (BIA)[4]

BIA is a biodiversity impact assessment tool jointly developed by the Shan Shui Conservation Centre and the Peking University Centre for Nature Conservation and Social Development. It integrates authoritative data resources from various sources, including the Nature Watch Biodiversity Database, the IUCN Species Distribution Database, the Key Biodiversity Areas (KBA) Database, the World Database on Protected Areas (WDPA), and the Green Grid Environmental Impact Assessment Database. BIA aims to identify potential impacts of construction projects on biodiversity through spatial overlay analysis, providing data support for planning decision-making, regulatory supervision, and public participation, thereby effectively reducing the risk of ecological damage.

Similar to IBAT, BIA is mainly used in L4, where companies and financial institutions can use BIA to quickly identify whether a factory site, a key node in the supply chain or a project site is located in an ecologically sensitive area.

1.2 Evaluate

Nature-related risks and opportunities for companies and financial institutions arise from their dependencies and impacts on nature. These dependencies stem from a reliance on ecosystem services to maintain business processes and cash flows – services that are themselves dependant on the health of natural resources. Therefore, in-depth analysis of nature-related dependencies and impacts is a primary and critical step in understanding the risks and opportunities faced by companies and financial institutions. The Evaluate phase aims to identify potential material risks and opportunities through a systematic analysis of the organisation's dependencies and impacts on nature.

In the Evaluate phase, companies need to analyse in depth the pathways, magnitude and potential materiality

[3] Integrated Biodiversity Assessment Tool (IBAT) Alliance, *IBAT for Business*, 2024, https://www.ibat-alliance.org/
[4] Taskforce on Nature-related Financial Disclosures**,** *Biodiversity Impact Assessment Tool (BIAT)*, 2024, https://tnfd.global/tools-platforms/biodiversity-impact-assessment-tool-biat/

of nature-related dependencies and impacts based on the priority areas identified during the Locate phase (including sectors, value chain stages, geographic locations and sensitive areas). Financial institutions focus on systematically analysing the nature-related dependencies and impacts of the companies within their investment portfolios, providing the data foundation for subsequent risk and opportunity assessments. The specific steps are as follows:

1. Identification of environmental assets, ecosystem services and impact drivers (E1): In the E1 phase, companies and financial institutions should produce a list of environmental assets, ecosystem services and impact drivers by business activities and/or assessment locations. Based on the sector, value chain, geographic location and ecologically sensitive area lists generated during the Locate phase, companies and financial institutions should use their own geographic data or that of investee companies to identify the environmental assets and ecosystem services that are directly or indirectly connected to business activities;

2. Identification of dependencies and impacts (E2): In the E2 phase, companies should produce a list of dependencies and impacts by assessment location, including qualitative descriptions and an initial prioritisation (high/medium/low). Financial institutions should produce a list of dependencies and impacts for the companies in their investment portfolios by business activities and/or assessment locations. Based on the E1 output and the ecologically sensitive area data from the Locate phase, companies and financial institutions should identify dependencies on ecosystem services and assess impact pathways on nature. At the same time, companies should construct dependency pathways and impact pathways by incorporating external factors;

3. Measurement of dependencies and impacts (E3): In the E3 phase, companies should produce a set of quantitative indicators for dependencies and impacts. Based on the prioritisation list generated in E2, companies should quantitatively measure dependencies and impacts. Financial institutions should produce quantitative indicators for dependencies and impacts for companies in their investment portfolios. Based on the prioritisation list produced in E2, financial institutions need to quantitatively measure and qualitatively assess the dependencies and impacts of investee companies;

4. Determination of impact materiality (E4): In the E4 phase, companies and financial institutions should produce a list of dependencies and impacts ranked by materiality. Based on the measurement results from E3 and stakeholder feedback, companies and financial institutions should use standards such as the Global Reporting Initiative (GRI) or the European Sustainability Reporting Standards (ESRS) to disclose their impacts on nature and society.

1.2.1 Tools for the Evaluate Phase

In the Evaluate phase, companies and financial institutions can draw on a growing set of data, tools, and methodologies to accurately assess the materiality of nature-related dependencies and impacts. This report highlights ENCORE and the Nature Risk Profile as two illustrative examples for detailed analysis.

Tool 1 Exploring Natural Capital Opportunities (ENCORE)[5]

ENCORE is a free online tool maintained by Global Canopy, the United Nations Environment Programme

[5] ENCORE, *Exploring Natural Capital Opportunities, Risks and Exposure (ENCORE)*, 2024, https://encorenature.org/en

Finance Initiative (UNEP FI), and the United Nations Environment Programme World Conservation Monitoring Centre (UNEP-WCMC). It helps organisations assess their business dependencies and impacts on natural capital, as well as explore nature-related risks. For financial institutions, ENCORE data can be used to identify nature-related risks exposed through their lending and investment activities in high-risk industries and sectors.

In the TNFD LEAP approach, ENCORE can be applied in both the Locate and the Evaluate phases. In the Locate phase (L2), ENCORE offers financial institutions a qualitative approach to identify their portfolios that have a moderate or high dependencies and impacts on nature, in the Evaluate phase (E2), ENCORE helps companies to identify moderate or high dependencies and impacts of their business activities on ecosystem services.

Tool 2 Nature Risk Profile[6]

The Nature Risk Profile, jointly released by United Nations Environment Programme (UNEP) and S&P Global, introduces a risk assessment framework centred on the two core dimensions of dependencies and impacts. This framework aims to help companies and financial institutions assess their nature-related dependencies and impacts, thereby identifying, quantifying, and addressing related risks.

Similar to ENCORE, the Nature Risk Profile can be applied in both the Locate (L2) and the Evaluate (E2) phases.

1.3 Assess

In the Assess phase, companies and financial institutions need to further identify, quantify and prioritise nature-related risks and opportunities based on the dependency and impact pathways, scale, and potential significance, which are previously identified in the Evaluate phase. This provides data support for integrating risks and opportunities into the existing risk management framework. In the Assess phase, the specific steps for companies and financial institutions are as follows:

1. Risk and opportunity identification (A1): In the A1 phase, companies and financial institutions should list nature-related risks and opportunities by business activities and/or assessment locations. Based on the list of dependencies and impacts output from the Evaluate phase, companies and financial institutions should combine the geographic distribution of business activities, industry characteristics, and ecological sensitivity area data to identify nature-related risks.

2. Adjustment of existing risk mitigation and risk and opportunity management (A2): In A2, companies and financial institutions should propose enhancements to their existing risk management processes. Companies and financial institutions should assess their existing risk management processes and tools (e.g., risk categorisation, risk assessment methodologies) and identify what needs to be adapted to accommodate the nature-related risks and opportunities.

3. Risk and opportunity measurement and prioritisation (A3): In A3, companies and financial institutions should produce a prioritised list of nature-related risks and opportunities. Based on the risk management adjustments in A2, companies and financial institutions should quantify the scale of risks and

[6] UN Environment Programme, *Nature Risk Profile: A Methodology for Profiling Nature-related Dependencies and Impacts,* 2022, https://www.unepfi.org/publications/nature-risk-profile/

opportunities, and assess the likelihood of their occurrence.

4. Risk and opportunity materiality assessment (A4): In A4, companies and financial institutions should produce a list of prioritised sensitive and important locations. Companies and financial institutions are required to assess the materiality of nature-related risks and opportunities based on the quantification and prioritisation results from phase A3, thereby making the necessary disclosures.

1.3.1 Methods for the Assess Phase

Annex 4 Risk Assessment Methods of the TNFD LEAP methodology introduces three risk assessment approaches: the heatmapping method, the asset tagging method and scenario-based risk assessment. The following section provides a comparative analysis of these three methods.

Method 1 Heatmapping

Heatmapping is a qualitative risk assessment tool primarily used to quickly identify and summarise the potential exposure of different industries or asset classes to nature-related risks and opportunities. Heatmapping uses colours or rankings (such as high, moderate, low) to display the performance of different industries or sub-sectors across various dependence and impact categories. Its advantages include relatively easy data access, the use of existing tools like ENCORE, and suitability for initial screening and cross-sector comparisons. However, its disadvantages include failing to account for value chain complexities, the lack of forward-looking analysis, and insufficient detailed analysis of specific assets or companies.

Method 2 Asset Tagging

In comparison to heatmapping, Asset Tagging is a more in-depth method that evaluates nature-related dependencies and impacts using specific asset-level data. Asset Tagging can be categorised at different levels, ranging from industry data to the geographic location of specific assets, progressively increasing data granularity. The advantages of this method include providing a more specific and refined risk analysis, identifying specific companies or assets at high risk, and is suitable for more in-depth decision-making. However, its drawback is the high cost of data acquisition, especially for private companies or cases requiring geographic location data, and limited data availability.

Method 3 Scenario-based Risk Assessment

Scenario-based Risk Assessment combines data from heatmapping and asset tagging to construct different scenarios (e.g., policy changes, market demand shifts, etc.), thereby evaluating the financial impacts of nature-related risks. The advantages of this method include its forward-looking and its ability to simulate potential financial losses or gains under various scenarios, which can help organisations in their strategic planning. However, the disadvantages include large data quantity requirement, modelling complexity, and the lack of readily available public scenario modelling, implying in-house development may be required.

1.4 Prepare

In the Prepare phase, companies and financial institutions need to build on the quantification and prioritisation of nature-related risks and opportunities identified during the Assess phase. Additionally, they need to determine their disclosure procedures to ensure the integration of nature-related issues into the overall business strategy and risk management framework, and ensure transparent disclosure to stakeholders. The specific steps companies and financial institutions need to undertake are as follows:

1. Strategy and resource allocation plans (P1): In the P1 phase, companies and financial institutions should align on a nature-related strategy, define governance responsibilities, and management roles, and draft an initial resource allocation plan. Based on the list of risks and opportunities output from the Assess phase, companies and financial institutions should organise cross-sectoral senior management teams to discuss the impact of nature-related issues on strategy, governance, and resource allocation.

2. Target setting and performance management (P2): In the P2 phase, companies and financial institutions should produce a list of targets with scientifically sound objectives and quantitative indicators. Based on the strategic consensus of the P1 phase, companies and financial institutions should set targets consistent with the GBF. To measure and reach those targets, they should establish corresponding performance management systems based on the results of the assessment of nature-related dependencies, impacts, risks and opportunities.

3. Reporting (P3): In the P3 phase, companies and financial institutions should develop a detailed list of disclosure content and ensure their transparency and consistency. Based on the results from the P1 and P2 phases, companies and financial institutions need to decide how to disclose nature-related issues, including the content and form of the disclosure. The disclosure should be based on the TNFD, covering governance, strategy, risk and impact management, metrics and targets.

4. Presentation (P4): In the P4 phase, companies and financial institutions should finalise the presentation of the disclosure content and ensure that it complies with relevant standards and regulatory requirements. Based on the disclosure content list in P3, companies and financial institutions need to decide how to present nature-related disclosures, including the locations and forms of the disclosures.

1.4.1 Tools for the Prepare Phase

In the Prepare phase, organisations can refer to a range of authoritative guidelines and frameworks. These resources include the TNFD recommendations, the guidelines for Science Based Targets (SBTs) for Nature, and the ISSB's IFRS S1. The following section will provide an in-depth analysis of science-based Targets for Nature. The Science-Based Targets for Nature will be closely examined. The Science-Based Targets (SBTs) for Nature provides companies with actionable targets and a specific five-step guideline, hence distinguishing itself from other tools with its practicability.

Tool 1 Science-Based Targets (SBTs) for Nature[7]

Science-Based Targets (SBTs) for Nature is a systematic framework designed to help companies set science-based targets related to nature, aiming to reduce negative impacts on the natural environment and promote sustainable development. This method was developed by the SBTN and is interoperable with the TNFD framework. The application of SBTN by companies to generate data and analyse results can facilitate the use of the LEAP methodology to assess nature-related issues; in turn, the application of the LEAP methodology can provide the data needed for SBTN.

SBTN consists of the following five steps:

1) **Assess:** Assess the business's impact on nature, including water resources, land use, biodiversity, etc., and identify key impact areas and locations;
2) **Interpret and Prioritise:** Based on the results of the assessment, identify and prioritise key areas and locations where targets need to be set;
3) **Measure, Set and Disclose:** Collect baseline data, set specific, measurable and time-bound goals, and disclose them externally;
4) **Act:** Develop and implement specific action plans to achieve the goals;
5) **Track:** Monitor, report and validate the progress of the goals, and periodically adjust the strategy to ensure that the goals are achieved.

[7] Taskforce on Nature-related Financial Disclosures, *Guidance for Companies on Science-based Targets for Nature (Version 1.0)*, 2023, https://tnfd.global/wp-content/uploads/2023/09/Guidance_for_companies_on_science_based_targets_for_nature_v1.pdf

2. Cases of Financial Institutions and Companies in Nature-related Risk Management

Chapter 1 has introduced the TNFD LEAP approach and related tools, constructing a framework for managing nature-related financial risks. This chapter selects cases of nature-related risk management and information disclosure from financial institutions and companies in China and in the UK. They will provide references for other companies and financial institutions highly relevant to the Chinese and UK markets.

2.1 Cases of Financial Institutions

Financial institutions play a critical role in the economic system, with their business decisions significantly impacting resource allocation and economic development. In the context of escalating global ecological changes, nature-related risks have become a major challenge that financial institutions can no longer overlook. As pioneers in applying the TNFD LEAP approach within the financial sector, the experiences of Oxbury Bank, Rabobank, and ICBC Huzhou Branch are highly instructive. This report analyses these cases to demonstrate how financial institutions effectively identify and manage nature-related risks.

Case 1 Oxbury Bank Plc – "Oxbury Bank Plc 2023 Natural Capital Report"[8]

Established in 2021, the UK's Oxbury Bank Plc (Oxbury), is dedicated exclusively to domestic agriculture. In 2023, Oxbury released its first natural capital report, conducting a comprehensive assessment of climate change and biodiversity issues in its business operations and loan portfolio using the LEAP approach.

In the Locate phase, Oxbury focused on its 20 largest term loan exposures in the agricultural loan portfolio (accounting for 26% of the total loan amount), whose businesses cover agricultural sub-sectors such as cereals and dairy products. Using the UK public databases, Oxbury analysed the natural capital conditions across the geographic locations associated with its term loan exposures. The results showed that among the 10,389 hectares of land, there were several sensitive areas (such as ancient woodlands and nitrate vulnerable zones).

In the Evaluate phase, ENCORE and the Natural Capital Protocol were used to analyse the dependencies and impacts of agricultural sub-sectors on nature. The results indicated high dependence on terrestrial, groundwater, and surface water ecosystems, and their production activities (such as pollutants and emissions) have significant impacts on ecosystem services. For example, livestock farming has a major impact on greenhouse gas emissions and is highly dependent on water resources; both grain and livestock production can cause soil and water pollution while also being highly dependent on the quality of soil and water resources.

In the Assess phase, Oxbury identified physical and transition risks, with targeted mitigation strategies aligned to 2023 operational data. Physical risks include acute risks driven by events (such as flooding, droughts, and heatwaves) and chronic risks (such as yield declines caused by high temperatures and the erosion of ecosystem services due to agricultural pollution), which could translate into credit risks and impact customers' ability to repay loans. Transition risks arise from policy changes (such as new environmental regulations and agricultural subsidy reforms) and new technological developments (such as low-carbon fertilisers and methane-reducing technologies), which require agricultural clients to adjust production methods to meet new environmental and market demands.

[8] Oxbury Bank, *Oxbury Natural Capital Report*, 2023, https://www.oxbury.com/media/hicmfzoj/oxbury-natural-capital-report-2023.pdf

Clear strategies were developed in the Prepare phase. For example, in its loan business, Oxbury prioritised supporting projects that adopt low-carbon technologies, such as low-carbon beef supply chains, to support the sustainable and nature-positive transition of agriculture.

Case 2 Rabobank – "Rabobank's Nature Vision and Approach"[9]

Rabobank, an international food and agri-business bank headquartered in the Netherlands, offers a wide range of financial products and services to retail and corporate customers in the Netherlands. As one of the early adopters of the TNFD, Rabobank did not identify and manage nature-related dependencies, impacts, risks and opportunities in accordance with the steps of the LEAP methodology in its "Rabobank's Nature Vision and Approach" report. However, it disclosed nature-related information in the report in line with the four pillars of TNFD, namely Governance, Strategy, Risk and impact management, as well as Metrics and targets. Therefore, this case will be introduced according to these four pillars.

Rabobank has a multi-tiered governance structure, including a Supervisory Board that oversees sustainable development matters; a Managing Board tasked with setting sustainable development goals and the group's sustainable development strategy and roadmap; and a Risk Management Committee in charge of incorporating ESG risks into the risk management framework.

In terms of Strategy, Rabobank seeks to achieve full integration of nature into the bank's core business processes by 2030. Specifically, Rabobank has established clear targets in three key areas - land use, water and pollution, and aims to mitigate the negative impacts of these areas on biodiversity.

In terms of Risk and impact management, Rabobank uses tools to conduct nature-related dependency and impact analysis on most of its private loan portfolios (accounting for 63% of total assets). The results show that the impact on nature is mainly land use. Meanwhile, approximately 85% of the covered assets are "highly" or "very highly" dependent on one or more ecosystem services, such as water availability, soil quality, and climate regulation. Based on this, Rabobank analyses nature-related risks and mentions that physical risks triggered by extreme weather events and transition risks arising from the shift towards a nature-positive economy are its key concerns, but it does not disclose details in the report.

In terms of Metrics and targets, Rabobank has set Nature-related Effort Targets covering measurement, taking action, and awareness & disclosure. For example, by the end of 2025, nature education will be integrated into the regular training system, and nature-related meetings will be held regularly for senior management and the board of directors.

Case 3 Industrial and Commercial Bank of China Huzhou Branch – "Biodiversity Risk Management for Investment and Financing Projects of Industrial and Commercial Bank of China Huzhou Branch"[10]

[9] Rabobank, *Valuing Nature: The Financial Sector's Role in Transitioning to a Nature-Positive Economy*, 2023, https://media.rabobank.com/m/382d29098ed124b3/original/Value-Nature.pdf

[10] Green Finance Committee of China Society for Finance and Banking, *Research on the Construction of China's Nature-related Financial Disclosure Framework*, 2023, http://www.greenfinance.org.cn/displaynews.php?id=4425

As a pilot branch for green finance reform at the head-office level, the Industrial and Commercial Bank of China Huzhou Branch ("ICBC Huzhou Branch") is committed to promoting green development through green finance. The ICBC Huzhou Branch has integrated biodiversity risk management into the entire credit business cycle, constructing a risk management process covering the Pre-loan, In-loan, and Post-loan phases:

In the Pre-loan phase, the ICBC Huzhou Branch uses the ENCORE tool to evaluate the industries covered by its existing business and classifies them into low, medium, and high-risk levels. Finally, it identifies ten high-risk industries as key priorities for pre-loan reviews, particularly those that may significantly disrupt ecosystem services, trigger transition risks, or are highly dependent on ecosystem services and thus vulnerable to physical risks. Meanwhile, it assesses the feasibility of projects in combination with the map of key biodiversity areas in Huzhou. It uses the comprehensive biodiversity protection map of Huzhou to locate the project and determine whether it overlaps with an ecologically sensitive area. If it does, the bank assesses whether the project complies with the economic activities permitted in the biodiversity protection area and only considers supporting the project if it meets the requirements.

In the In-loan phase, the ICBC Huzhou Branch strengthens risk management and continuous assessment. Based on the pre-loan analysis results and biodiversity impact assessment information, it quantifies the risk trend in combination with the assessment methodology. For projects with potential biodiversity risks, it uses remote sensing satellite technology to monitor the impact of the project on the driving factors of biodiversity impact.

In the Post-loan phase, it implements and monitors mitigation measures to ensure that the implementers of projects with potential risks carry out the mitigation measures. It conducts long-term tracking or regular ecological monitoring according to the project situation and proposes technical support plans. It evaluates the actual impact of the project on the ecological environment based on the monitoring data, adjusts the risk level, takes management measures, and regularly discloses relevant information.

2.2 Cases of Companies

In the global economic system, companies, as key players in economic activities, are closely connected with the natural environment. From resource scarcity and climate change to biodiversity loss, changes in the natural environment not only threaten the long-term stable development of businesses, but also bring new market opportunities and transformation needs. Against this backdrop, companies like Iberdrola, and Mengniu have actively explored practices to address nature-related risks. This report will provide an in-depth analysis of these corporate practices, offering valuable references for businesses across industries in managing nature-related risks.

Case 4 Iberdrola Group – "World Business Council for Sustainable Development (WBCSD) TNFD Pilot Use Case"[11]

The Iberdrola Group (hereinafter referred to as the Iberdrola) is an international energy company headquartered in Spain, primarily engaged in the production, distribution, and sale of electricity and natural gas. As one of the early adopters of TNFD, Iberdrola has actively participated in nature-related risk management by implementing the LEAP approach.

In the Locate phase, Iberdrola compares the geographical location data of key assets with nature-related datasets (such as the IUCN Red List), and identifies power lines, substations, and transformer stations as priority locations for assessment.

In the Evaluate phase, Iberdrola assesses the dependencies on and impacts of its business activities on nature with the help of tools like ENCORE. The results show that Iberdrola's business activities mainly depend on abiotic supply resources, such as water, mineral and non-mineral resources. Meanwhile, business activities have impacts on nature during the stages of design, construction, operation and decommissioning. For example, air pollution caused by gases emitted into the atmosphere during the operation stage.

In the Assess phase, Iberdrola adopts different risk and opportunity assessment methods for different natural elements based on factors such as data availability. For example, it uses the heatmap method to assess the regulation of ecosystem services; and asset tagging or scenario analysis to assess water and others. After identifying the key risks, Iberdrola has introduced targeted mitigation strategies for different regions.

In the Prepare phase, Iberdrola has set two main targets: "Have a net positive impact on biodiversity by 2030" and "Commitment to no deforestation by 2025".

Case 5 China Mengniu Dairy Co., Ltd. – "2023 TNFD Report"[12]

China Mengniu Dairy Co., Ltd. (Mengniu) founded in 1999 and headquartered in Hohhot, is one of the leading dairy producers in China. As one of the few early adopters of TNFD in China, Mengniu has constructed a systematic nature-related risk management framework by applying LEAP methodology in its 2023 TNFD Report.

[11] WBCSD and Iberdrola, *LEAP Use Case*, 2024, https://tnfd.global/wp-content/uploads/2024/10/WBCSD_Iberdrola_LEAP-use-case.pdf

[12] Mengniu Dairy, *Taskforce on Nature-related Financial Disclosures (TNFD) Scoping Report*, 2023, https://mengniuir.com/pdf/esg/tnfd_sc.pdf

In the Locate phase, Mengniu analysed 55 factories and 64 ranches in China and internationally through the BIA Tool and IBAT. The focus was on whether the surrounding areas of the factory and ranch operation sites were close to endangered species, protected areas, etc. The results showed that there were endangered species such as little egrets and yellow - breasted buntings within 10 km of the factories and ranches.

In the Evaluate phase, Mengniu utilised ENCORE and Natural Capital Protocol to assess the natural dependencies and impacts of business activities. Mengniu visualised the impacts and dependencies of various business segments through heat mapping. According to the analysis, the upstream ranch and raw material sectors have a strong dependence on and significant impacts on factors such as water resources and land quality.

In the Assess phase, Mengniu identifies nature-related risks from the dimensions of physical risks (both acute and chronic), transition risks (including policy, market, technology, reputation and liability), systemic risks, and nature-related opportunities from dimensions such as resource efficiency, reputation, and market, with corresponding response strategies formulated.

In the Prepare phase, Mengniu has set multiple quantifiable targets regarding nature-related issues such as climate change and water resource utilization, including “striving to achieve zero deforestation by 2030”. It will also regularly track the progress of these targets.

3. Challenges and Opportunities for Financial Institutions and Companies in Identifying and Managing Nature-related Financial Risks

3.1 Policies and Standards on Nature-related Risk Management and Information Disclosure

The coordinated development of international and national policy frameworks provides essential support for financial institutions and companies in identifying and managing nature-related risks. Against this backdrop, China and the UK—both active promoters of global biodiversity finance—have each developed distinct approaches to integrating international frameworks with domestic policy systems.

At the international level, relevant policies provide a unified direction for both countries. In February 2022, the second phase of the fifteenth meeting of the Conference of the Parties (COP15) to the Convention on Biological Diversity adopted the Kunming-Montreal Global Biodiversity Framework (GBF). Its Target 15 emphasises "encouraging and enabling large multinational companies and financial institutions to regularly monitor, assess and transparently disclose their risks to biodiversity, as well as their dependencies and impacts,"[13] offering clear policy guidance for biodiversity-related disclosures by companies and financial institutions. In February 2025, the European Commission released the Omnibus Proposal, which will affect Chinese and UK multinational enterprises subject to the fourth batch of disclosure requirements. These companies should closely monitor updates to the European Sustainability Reporting Standards (ESRS), particularly changes to ESRS E4 (Biodiversity and Ecosystems), in order to prepare for the new nature-related disclosure requirements. In April 2024, the International Sustainability Standards Board (ISSB) launched a new research project on biodiversity, ecosystems and ecosystem services, which aligns with the objectives of the GBF.

China has emphasised a top-down approach in developing mandatory disclosure guidance and continues to accelerate the development of policies related to nature and biodiversity. In January 2024, the Ministry of Ecology and Environment issued the "China's National Biodiversity Strategy and Action Plans (2023–2030)", which calls for "vigorously developing green finance and strengthening nature-related environmental information disclosure." In April of the same year, the Beijing, Shanghai and Shenzhen stock exchanges jointly released the "Guidelines for Sustainability Reporting by Listed Companies", which require entities with significant impacts on ecosystems and biodiversity to disclose relevant information during the reporting period, as stipulated in Article 32. In November, the Ministry of Finance and eight other ministries issued the "Basic Standards for Corporate Sustainability Disclosure (Trial)", which set out foundational concepts, principles and methods for sustainability disclosure, with specific standards on biodiversity and ecosystems to be released subsequently.

The UK, by contrast, places greater emphasis on market-led approaches and voluntary innovation. In February 2025, the UK released "UK National Biodiversity Strategy and Action Plan", providing financial support for initiatives such as the Nature Positive Economy and TNFD to facilitate nature-related risk management and implementation by financial institutions and companies. The UK Financial Conduct Authority (FCA) is also considering incorporating the TNFD framework into future revisions of its Sustainable Disclosure Requirements (SDR), which could offer clearer nature-related disclosure guidance for the asset management sector and listed companies.

[13] United Nations, Conference of the Parties to the Convention on Biological Diversity, Fifteenth Meeting, 2022, https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-zh.pdf

Despite different approaches, China and the UK face several similar challenges at the policy implementation level. In China, although the "Guidelines for Sustainability Reporting by Listed Companies" cover 21 key topics—including "ecosystems and biodiversity"—there remain notable shortcomings. First, the Guidelines lack detailed operational instructions, making it difficult for companies to identify nature-related risks and develop targeted response measures. Second, the current policy framework does not provide differentiated disclosure requirements for different industries, limiting the ability of disclosures to fully reflect sector-specific risk exposures. Third, the depth of disclosure remains insufficient: the five disclosure items listed in Article 32 focus primarily on the "measures taken and outcomes achieved," without requiring companies to disclose their specific dependencies on biodiversity or the actual impacts they generate.

The UK's market-led, voluntary framework also faces its own challenges. On one hand, the absence of unified mandatory disclosure standards may result in inconsistent quality and poor comparability of nature-related disclosures across financial institutions and companies. On the other hand, reliance on voluntary participation alone may not secure sufficiently broad industry coverage, particularly among sectors with high nature-related dependencies and impacts.

Therefore, nature-related disclosure policies in both China and the UK require further refinement. Both countries need to strike an appropriate balance between policy mandates and market flexibility, while strengthening international cooperation to promote greater global alignment of disclosure standards.

3.2 Implementation of Financial Institutions and Companies on Nature-related Risk Management

Currently, financial institutions and companies in both China and the UK are still at an early exploratory stage of nature-related risk management and have yet to establish mature risk management systems and governance frameworks. Behind this shared characteristic, the two countries exhibit different paces, priorities, and practical challenges in implementation.

First, in terms of governance structures, most institutions in both countries have not yet incorporated ecosystem and biodiversity issues into their risk control frameworks, nor have they developed comprehensive nature-related risk management strategies. In addition, the roles and responsibilities of boards of directors and their specialised committees in managing nature-related risks remain insufficiently defined, resulting in inadequate oversight and accountability across the entire process of identifying, assessing, and managing nature-related risks. Moreover, institutions generally lack dedicated departments or personnel to systematically review business operations and value chains, and the absence of effective cross-department coordination mechanisms makes it difficult to integrate nature-related risk management into core strategies. However, a key difference exists: some leading UK financial institutions have begun establishing dedicated nature-related committees at the board level, while Chinese institutions tend to rely on existing green finance leadership groups or ESG committees to gradually incorporate nature-related topics into their mandates.

Second, in terms of disclosure practices, despite the availability of tools and frameworks such as the TNFD LEAP approach, disclosures in both countries remain relatively superficial. Few financial institutions and companies have fully implemented the LEAP methodology. Most remain at the "Locate" phase (identifying

ecologically sensitive areas in business operations and value chains) and the "Evaluate" phase (assessing nature-related dependencies and impacts), with limited progress in the critical "Assess" phase (evaluating nature-related risks and opportunities), particularly in using scenario analysis to deepen the assessment of nature-related financial risks. Furthermore, financial institutions in both countries lag significantly behind companies in applying the LEAP methodology, largely due to the higher complexity involved. For financial institutions, screening key investee companies across complex, cross-sectoral and cross-regional portfolios requires extensive data integration and a combination of ecological and financial analytical expertise.

3.3 Tools and Methodologies for Nature-related Risk Assessment

Although tools and methodologies such as ENCORE and the TNFD LEAP approach provide systematic support for financial institutions and companies in China and the UK to conduct nature-related risk assessments, their practical application still faces significant challenges. Nature-related risks are highly spatial in nature and often require location-specific, geospatially precise analysis, which current assessment frameworks do not fully meet. These limitations are reflected in the following two areas:

At the tool level, existing nature-related risk assessment tools have shortcomings in industry classification coverage, dynamic monitoring capabilities, and assessment dimensions. For example, although the ENCORE tool is based on the United Nations' International Standard Industrial Classification of All Economic Activities (ISIC) and provides crosswalks to some industry classification systems, it does not yet achieve full sectoral coverage. For financial institutions in China and the UK with global investment portfolios, this requires substantial time-consuming classification conversion work, significantly reducing application efficiency. Similarly, although the IBAT tool covers global biodiversity data, delays in data updates—particularly in remote regions — limit its ability to provide accurate ecological sensitivity assessments, affecting risk management decisions. This challenge is particularly prominent for Chinese and UK institutions with global operational and investment footprints.

At the methodology level, implementation of the TNFD LEAP approach in both China and the UK is constrained by data quality and technical capabilities. First, the TNFD LEAP methodology recommends that companies and financial institutions accurately identify ecologically sensitive areas involved in their operations and investment portfolios during the "Locate" phase. For institutions focused on domestic markets, challenges mainly arise from domestic data: Chinese institutions face fragmented data held by multiple agencies and insufficient publicly available data granularity; UK institutions must integrate data across different devolved administrative systems. For truly global investors, the challenge is even more complex: efficiently processing, integrating, and standardising data from different countries, each with distinct standards, formats, and data quality. Second, TNFD LEAP was developed with a global perspective, and its requirements may not fully align with the capacity constraints of small and medium-sized enterprises that focus on local markets and have limited international experience, making full implementation technically demanding.

To support capacity building, TNFD recently launched two tools, the "Learning Lab" and the "Trainer Portal" on its official platform, offering learning and teaching resources covering TNFD foundational concepts and practical applications, including videos and webinars. These initiatives support financial institutions and companies in China and the UK in strengthening internal capabilities and promote effective adoption of the TNFD disclosure framework.

3.4 Products and Mechanisms on Nature-related Risk Management

At present, incentive mechanisms for nature-related risk management and information disclosure are still in the early stages of development globally, and both China and the UK face similar challenges. Although methodological frameworks continue to improve, leading financial institutions and companies still encounter key obstacles: there is a lack of standardised indicator systems that link nature-related risk governance performance with financial returns—such as preferential loan interest rates or reduced insurance premiums—through instruments like biodiversity-linked loan terms or nature-positive investment quotas. Without such mechanisms, early adopters find it difficult to justify upfront investments, which directly constrains the wider adoption of nature-related risk management practices.

However, China and the UK each demonstrate distinct innovation pathways and development priorities. In the UK, supported by a mature environment for financial innovation, the market is at the forefront of establishing market-based ecological compensation mechanisms. The most notable example is the mandatory Biodiversity Net Gain (BNG) mechanism and associated credit trading market established under the Environment Act 2021. This framework requires new development projects in England to achieve at least a 10% biodiversity net gain. Developers may fulfil this obligation by purchasing biodiversity credits, thereby creating a market in which ecological conservation outcomes can be transformed directly into tradable financial assets.

China has developed a model combining national policy direction with localised innovation. At the national level, the Regulations on Ecological Conservation Compensation, issued by the State Council in April 2024, established the fundamenta framework for ecological compensation, reinforcing long-term expectations through rule-based governance. Against this policy backdrop, in January 2025, Anji County introduced the Climate Ecological Product Value Impact (VEP) Climate Loan and established a coordinated “Meteorology × Green Finance” mechanism. This approach integrates meteorological data into financing processes and incorporates meteorological disaster risk levels into risk assessment systems, guiding financial resources toward nature-positive projects. Such local practices not only support regional economic transformation but also provide practical experience for financial institutions seeking to manage and disclose nature-related risks.

3.5 International Cooperation on Nature-Related Issues

Within the global landscape of nature governance, both China and the UK play important roles, jointly shaping the international agenda on nature-related finance through bilateral and multilateral cooperation mechanisms. The year 2025 marks the 20th anniversary of China’s “Two Mountains” philosophy, a key milestone as the country continues advancing institutional systems for ecological value realisation and biodiversity mainstreaming. Meanwhile, the UK is strengthening its global influence in biodiversity finance through initiatives such as the Nature Positive Economy. Against this backdrop, China–UK cooperation not only aligns closely with global agendas—such as the upcoming 17th Conference of Parties (COP17) to United Nations Convention on Biological Diversity—but also serves as a crucial bridge for advancing biodiversity finance.

China and the UK have already established multi-layered cooperation mechanisms in the field of nature finance. Since the establishment of the UK–China Green Finance Taskforce in 2017, bilateral collaboration

in areas such as environmental information disclosure has continued to deepen. In March 2024 and March 2025, the Institute of Finance and Sustainability (IFS)[14] and the British Embassy Beijing jointly organised two workshops on "Nature-related Information Disclosure" and "Identification and Management of Nature-related Financial Risks." These events convened experts from financial institutions and international organisations in both countries to discuss nature-related risk management and disclosure, with the aim of strengthening bilateral cooperation on biodiversity finance and the nature-positive transition.

In early 2025, at the Eleventh UK–China Economic and Financial Dialogue, the two countries reached a series of agreements on biodiversity finance and nature-related information disclosure. These included recognising "the importance of effective risk management and investor information disclosure in achieving nature-positive outcomes and addressing climate change," and welcoming TNFD's work while encouraging leading international sustainability standard-setters to consider integrating the TNFD framework. These agreements provided new momentum for global standardisation of nature-related risk management and institutional capacity building.

However, effectively responding to nature-related risks and capturing emerging opportunities requires China and the UK to jointly address systemic challenges beyond the financial sector itself. In June 2025, the UK–China Nature & Biodiversity Finance Workstream was officially launched, bringing together nearly ten member institutions from each country. Under this mechanism, China and the UK can advance cooperation in several key areas:
(1) promoting coordinated involvement of relevant government departments and regulators to build a comprehensive natural capital accounting system and embed the value of nature into core decision-making;
(2) innovating and developing biodiversity credits and other financial instruments, and establishing standardised evaluation and trading mechanisms to strengthen biodiversity finance markets;
(3) supporting nature-positive transitions in high-impact sectors such as agriculture and forestry to ensure alignment between economic development and ecological protection goals.
In addition, the upcoming COP17 in 2026 presents an important opportunity for China and the UK to demonstrate global leadership. Member institutions of the Workstream may jointly propose recommendations on resource mobilisation and showcase exemplary practices in biodiversity finance.

Meanwhile, China and the UK have achieved new progress in TNFD-related collaboration. Bank of China became the first Chinese financial institution to formally join TNFD, and TNFD announced the Institute of Finance and Sustainability as its advisory body in mainland China. Several city commercial banks and rural commercial banks are currently conducting research and pilot projects on nature-related information disclosure based on TNFD's Recommendations and the LEAP approach, and are expected to publish pilot reports in the near future. These pilots represent concrete implementation of the "Kunming-Montreal Global Biodiversity Framework" and "National Biodiversity Strategy and Action Plans (2023-2030)", marking substantive progress for Chinese financial institutions in aligning with international nature-related disclosure frameworks. They also provide replicable and scalable pathways for broader adoption among Chinese institutions.

[14] Institute of Finance and Sustainability (IFS), IFS officially becomes a TNFD convener in China: Advancing nature-related disclosure processes and supporting biodiversity finance practices, 2025, https://mp.weixin.qq.com/s/77lZSUfvk9FRk1TGLS18cw

China–UK cooperation in biodiversity finance and nature-related information disclosure not only supports the development and refinement of unified global disclosure standards but also offers a platform for knowledge exchange and experience sharing for other countries. Going forward, IFS will maintain close communication with TNFD, organise expert dialogues and capacity-building activities, and support financial institutions and companies in adopting the TNFD framework and the LEAP approach to manage nature-related risks, creating valuable opportunities for Chinese institutions to strengthen their nature-related risk management capabilities.

4. Recommendations For Identifying and Managing Nature-related Financial Risks

Based on the practices, challenges, and opportunities in nature-related financial risk management in China and the UK, this report proposes the following recommendations for central banks and other financial regulators, financial institutions, and companies in both countries.

4.1 Recommendations for Central Banks and Other Financial Regulatory Authorities

4.1.1 Recommendations for China's Central Bank and Other Financial Regulatory Authorities

First, establish a systematic policy framework for nature-related risk governance. China's central bank and other financial regulatory authorities should take the lead in integrating nature-related risks into the financial stability assessment system, with a focus on developing nature-focused financial risk assessment and stress-testing tools. At the same time, macro-level policies should be formulated to identify, monitor, and mitigate systemic risks arising from biodiversity loss and ecosystem degradation.

Second, strengthen regulatory requirements on disclosure and risk management. Regulators should explicitly incorporate nature-related risks into the existing sustainable finance regulatory framework, addressing gaps in current policies (e.g., "Guidelines for financial institutions environmental information disclosure" issued by the PBoC) where nature-related content remains insufficient. Mandatory requirements should ensure that financial institutions:
(1) systematically identify, assess and manage nature-related risks across their portfolios;
(2) disclose material nature-related dependencies and impacts in a standardised manner, ensuring interoperability between nature-related metrics and climate-related reporting frameworks such as TNFD and ISSB;
(3) embed nature-related risk management into internal governance structures and supervisory review processes.

Third, establish cross-departmental coordination mechanisms. Nature-related disclosure and risk assessment require comprehensive and precise datasets—covering ecological sensitivity, biodiversity indicators, and natural-resource dependencies. These datasets are currently scattered across multiple ministries—including ecology and environment, natural resources, water, agriculture, and forestry—with inconsistent standards and limited data sharing, constraining nature-related disclosure by financial institutions and companies.
Therefore, a coordinated, clearly mandated, and technically supported cross-department mechanism is needed. For example, the "'Inteplan' information system for implementation and supervision of spatial planning" mandated by the Central Committee and the State Council provides a unified, geospatially-referenced platform for multi-source data integration and cross-agency sharing. Such mechanisms would enable financial institutions to more accurately evaluate asset-level exposures—e.g., identifying projects located within protected areas or violating ecological redlines—thus supporting systematic assessment and management of nature-related risks across investment portfolios.

4.1.2 Recommendations for the Bank of England and Other UK Financial Regulators

First, nature-related risk management should be integrated into monetary policy operations and financial system stability assessments. The central bank should take nature-related factors into account when conducting monetary policy. For example, under corporate asset purchase programmes, priority could be given to enterprises with strong nature-related risk management performance. At the same time, the central

bank should regularly analyse nature-related risk transmission channels in its financial stability assessments (e.g., the impact of agricultural yield reduction on bank credit losses).

Second, nature-related risks should be incorporated into the regulatory framework. The current UK regulatory framework primarily focuses on climate risks and pays insufficient attention to nature-related risks. Financial regulators should explicitly require financial institutions to assess the financial materiality of nature-related risks and integrate them into existing risk governance frameworks.

Third, nature-related scenario analysis tools should be developed. UK financial regulators could collaborate with academic and research institutions to develop scenario analysis tools tailored to nature-related risks. These tools should cover physical risks, transition risks, and systemic risks. Additionally, UK regulators should ensure that scenario design aligns with the UK National Climate Change Risk Assessments (CCRAs) and natural capital assessment approaches (e.g., "Enabling a Natural Capital Approach", ENCA) to reflect real-world interlinkages.

4.2 Recommendations for Financial Institutions

4.2.1 Joint Recommendations for Financial Institutions in China and the UK

First, strengthen nature-related risk management and disclosure practices through a tiered approach. At the portfolio level, financial institutions should use nature-related risk assessment tools (e.g., ENCORE or the Biodiversity Risk Filter) to analyse the geographical distribution of business activities and value chains, accurately identify nature dependencies and impacts, and apply scenario analysis to assess potential nature-related risks across investment portfolios. At the project level, financial institutions should conduct more detailed and project-specific nature-related risk assessments for high-risk projects. Through such a layered risk management approach, financial institutions can gain a more comprehensive and in-depth understanding of how nature-related risks affect their business, enabling the development of more effective risk mitigation strategies.

Second, carry out small-scale pilot programmes. Financial institutions should select key business lines to conduct pilot projects on nature-related risk management. Internal feedback from these pilots will help build practical understanding and provide a foundation for scaling up nature-related risk management efforts across the institution.

Third, strengthen internal capacity building. Financial institutions should enhance internal capabilities and improve staff understanding and management of nature-related risks by:
(1) regularly organising training sessions on nature-related risks and inviting industry experts to provide guidance to help staff familiarise themselves with nature-related risk types, assessment methods, and response measures;
(2) encouraging employees to participate in nature-related academic research and industry exchange activities to enhance their professional competence.

4.2.2 Additional Recommendations for Chinese Financial Institutions

To address the limited compatibility between international tools (such as ENCORE) and Chinese industry classification standards, Chinese financial institutions should actively develop localised nature-related risk

assessment tools tailored to their business characteristics and needs. Despite current challenges in data collection, Chinese financial institutions should still proceed with analytical work based on existing data rather than waiting for perfect datasets, while simultaneously developing effective data evaluation models to ensure accuracy and reliability in risk assessment.

4.2.3 Additional Recommendations for UK Financial Institutions

Leading financial institutions in the UK should further explore the development and application of nature-related scenario analysis tools to enhance their understanding and management of the financial impacts of nature-related risks.

4.3 Recommendations for Companies

4.3.1 Joint Recommendations for Companies in China and the UK

First, improve governance structures and strengthen board-level oversight. Companies should accelerate the development of comprehensive nature-related risk management strategies and incorporate biodiversity and ecosystem services into their risk appetite frameworks to provide a strong institutional basis for risk management and decision-making. At the same time, companies should define in detail the responsibilities of the board and its committees within the nature-related risk management system, clearly allocating responsibilities across risk identification, assessment, and management, and establishing oversight mechanisms to ensure effective governance.

Second, conduct nature-related risk screening across the value chain. Companies should establish dedicated departments or specialised roles to systematically map the geographical distribution of operations and value chains, their nature-related dependencies/impacts, and associated risks and opportunities. These functions should also coordinate cross-departmental collaboration to jointly promote biodiversity risk management and nature-related information disclosure.

Third, strengthen internal capacity building. Companies should make full use of nature-related financial disclosure guidance such as the TNFD LEAP approach and actively use resources from TNFD's "Learning Lab" and "Trainer Portal" to build internal capability. They should practise the full "Locate–Evaluate–Assess–Prepare" disclosure process and apply methods such as scenario analysis to deepen their assessment of nature-related risks and opportunities.

4.3.2 Additional Recommendations for Chinese Companies

Chinese companies should actively explore how to apply "Gross Ecosystem Product" (GEP) accounting results in project financing, green credit applications, and ecological compensation transactions, in order to transform ecological value into economic value.

4.3.3 Additional Recommendations for UK Companies

UK companies should actively leverage opportunities arising from the policy of "Biodiversity Net Gain" (BNG) by investing in ecological restoration projects to generate biodiversity credits and developing them as a new source of revenue.