24 September 2025

# Exploring the sustainability disclosure landscape and climate stress testing methodologies

*Key findings from recent UNEP FI Risk Centre Reports*

**Arjun Mahalingam**, Head of Risk Centre, UNEP FI
**Hiu-Yan Cheng**, Risk Disclosures Project Lead, Risk Centre, UNEP FI
**Maheen Arshad**, Sustainability Risk Integration Project Lead, Risk Centre, UNEP FI

# Agenda for today

| # | Overview | Speakers | Est. time in CEST |
|---|---|---|---|
| 1 | **Opening remarks: Importance of sustainability disclosures and stress testing for risk management** | Arjun MAHALINGAM | 14:00 - 14:05 |
| 2 | **Current disclosures landscape & challenges** | Hiu-Yan CHENG | 14:05 - 14:20 |
| 3 | **Linking disclosures to climate stress testing** | Hiu-Yan CHENG | 14:20 - 14:25 |
| 4 | **Climate stress testing methodologies** | Maheen ARSHAD,<br>Peter PLOCHAN (SAS) | 14:25 - 14:45 |
| 5 | **Discussion, Q&A** | | 14:45 - 15:00 |

# 1 Opening Remarks: Importance of sustainability disclosures & stress testing for risk management

unepfi.org

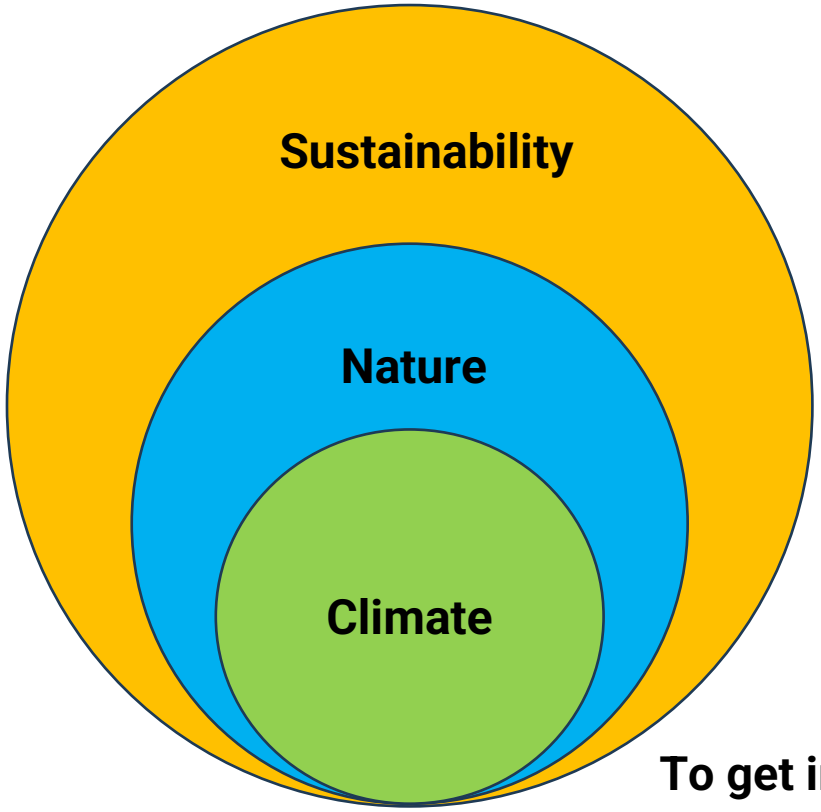
# Speaker

**Arjun Mahalingam**
Head of Risk Centre, UNEP FI

# Introduction to the UNEP FI Risk Centre

**Mission**: Help participants to take a holistic approach to sustainability-related risks with a view to fully integrate it within existing risk management frameworks.

## WHAT?




## WHY?

- ✓ Sustainability is a material driver of traditional risks.
- ✓ Develop forward-looking risk monitoring capabilities.
- ✓ Prepare ahead for regulatory requirements.
- ✓ Identify opportunities early.
- ✓ Support sustainable development.

## HOW?

**Lay solid foundations**

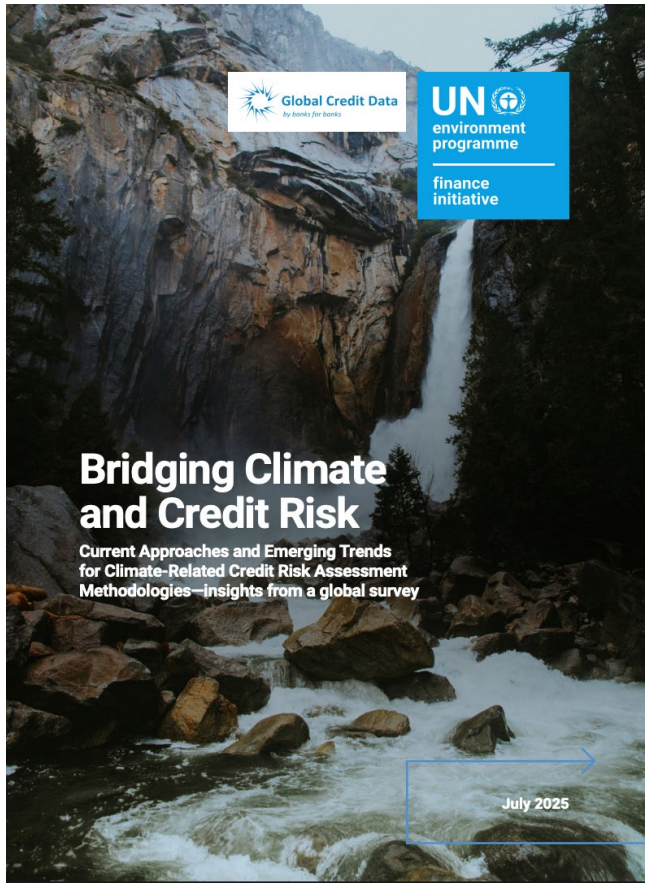
**Develop practical toolkits**

**Build capacity to implement**

**Leverage power of networks**

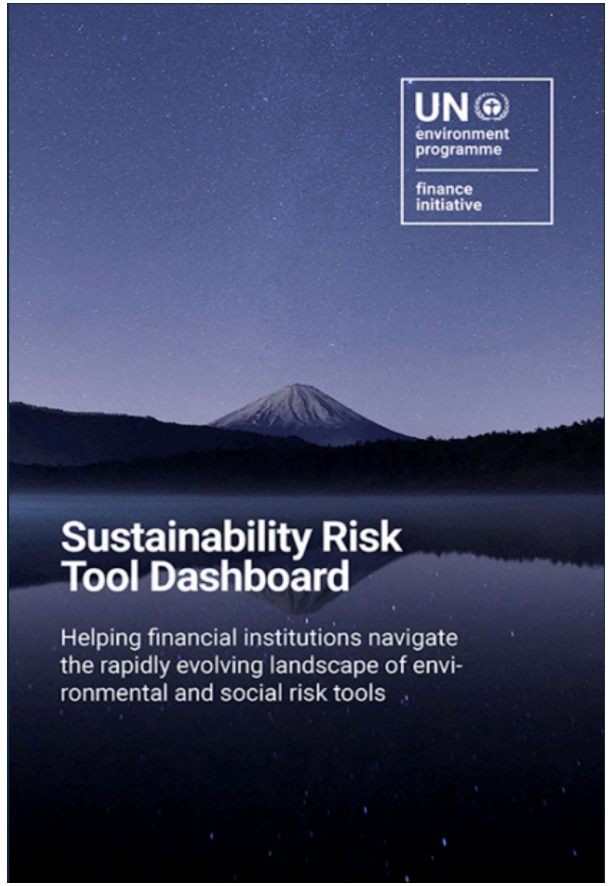
**To get involved or find out more reach out to:** unepfi-riskcentre@un.org

# UNEP FI Risk Centre Outputs so far in 2025




[Climate Credit Risk Report]


[Disclosures Landscape Report]




[Risk Tools Dashboard]

# What to expect next from the UNEP FI Risk Centre?

## Upcoming Publications

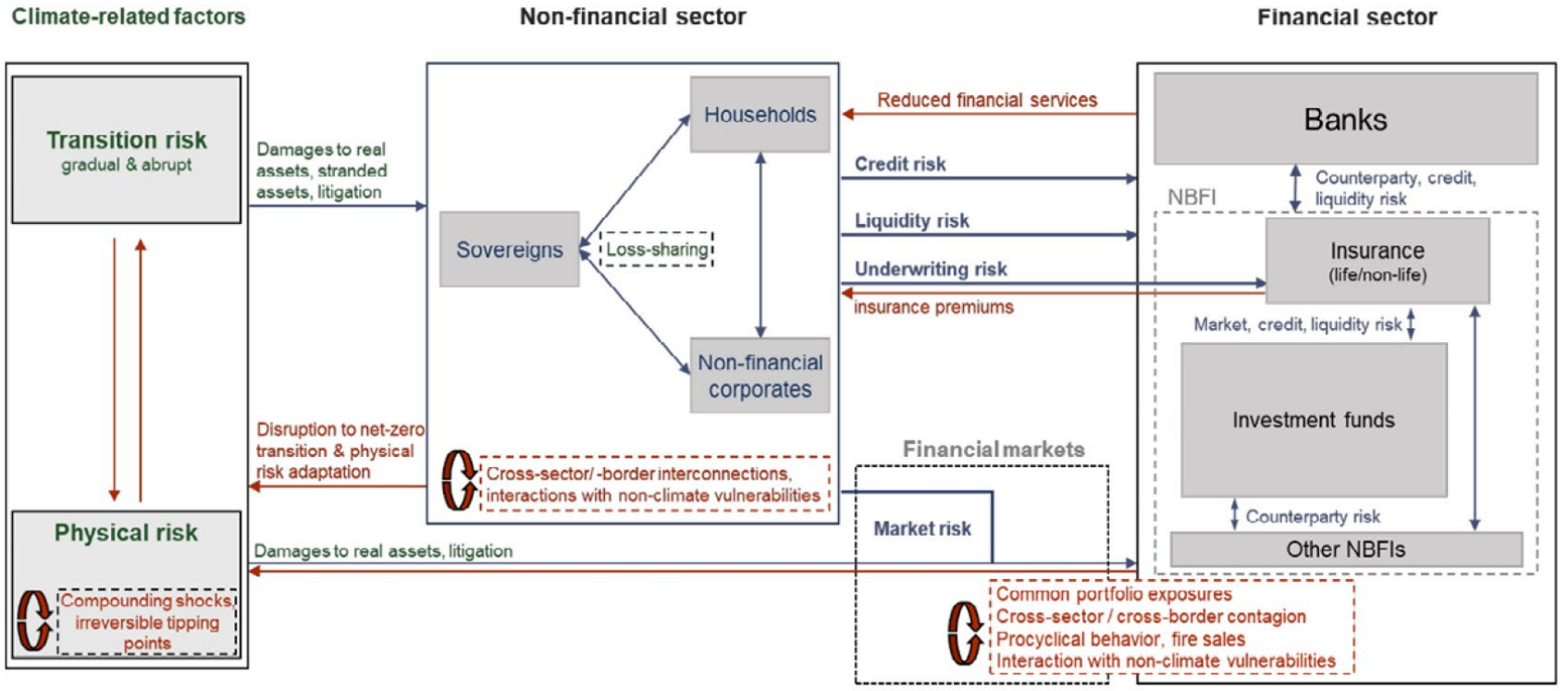
- **Climate Stress Testing Methodologies: Current Practices, Challenges and the Road Ahead** [Oct 2025]
- **Sustainability Risk Landscape Report** [Nov 2025]
- **Transition Finance for Hard-to-Abate Sectors: A Technical Supplement** [Nov 2025]
- **Sustainability Risk Tools Dashboard** (Quarterly Update)

## Upcoming Projects [2025-2026]

- Sustainability Risk Integration into Risk Management Practices: *Risk Appetite and Sustainability Scorecards*
- Physical Climate Risks and Adaptation Benefits
- Physical Nature Risk
- Enhancing Environmental Risk Reporting and Disclosure Practices
- Focus group on Central Banks' Perspectives: *Leading Risk Management Practices for Banks*
- Assessing and Using Client Transition Plans

# Climate shocks can translate into financial risks

## The importance of reporting risk exposures, transmission channels & resilience measures[1]




1) FSB, 2025;

# The need to consider sustainability-related risks & opportunities into companies' risk management

- High-quality, comprehensive ESG disclosures provide the data needed to identify, assess and manage financial risks and opportunities.
- Forward-looking information underpins credible transition plans and long-term capital allocation.
- Consistent and comparable disclosures are essential to assess systemic risks and increase transparency across jurisdictions.
- Banks should leverage clients' disclosures and scenario analysis to inform risk assessments and strategy.

### Identify

Disclosures populate the risk inventory with climate, nature, and social risks & opportunities; support scenario analysis

### Manage

Transition plans and mitigation strategies from disclosures guide controls, resource allocation, and contingency planning

### Assess

Metrics and targets from disclosures feed into risk quantification, materiality, and stress testing

### Communicate

Disclosures improve transparency, helps build investor / client trust

**Sustainability disclosures feed into every stage of companies' risk management**.
They help organisations identify, assess, manage and communicate risks and opportunities arising from environmental and social factors.
Download Risk Centre Disclosures Landscape Report here.

# 2 Current disclosures landscape & challenges

# Speaker

**Hiu-Yan CHENG (Yan)**
Risk Disclosures Project Lead,
Risk Centre, UNEP FI
✉hiu.cheng@un.org

# Overview of key sustainability disclosure standards / frameworks (1/2)

## TCFD Recommendations

- Voluntary recommendations
- 4 pillars: governance, strategy, risk management & metrics
- Fully incorporated into IFRS S1 & S2

## TNFD Recommendations

- Voluntary recommendations
- Builds on TCFD structure: same 4 pillars
- Focus on nature- and biodiversity-related risks & opportunities
- Applies "LEAP" approach (Locate, Evaluate, Assess, Prepare)

## TISFD Recommendations

- Voluntary recommendations still under development (expected 2025–26)
- Mirrors TCFD/TNFD model, focusing on inequality & social issues
- Aims to integrate with IFRS S1/S2 and ESRS interoperability

Reporting standards / framework provide **a structured way for companies to report** on their sustainability-related risks and opportunities, incl. their transition plans

Download Risk Centre Disclosures Landscape Report here.

# Overview of key sustainability disclosure standards / frameworks (2/2)

### IFRS S1 & S2

- Fully incorporates TCFD recommendations
- 4 core content: governance, strategy, risk management & metrics
- S1 covers sustainability aspects; S2 covers climate disclosure requirements
- Financial materiality

### ESRS

- Mandatory reporting standards under CSRD
- Covers a wide range of ESG topics in 12 Standards
- Double materiality

### GRI Standards

- Among the most widely used voluntary ESG reporting standards
- Impact materiality
- Includes topic and sector standards

### TPT Disclosure Framework

- Guidance for credible transition plans disclosures
- Includes 5 disclosure elements: Foundations, governance, implementation, engagement, metrics

### ISSA 5000

- Issued by IAASB (2023) as global sustainability assurance standard
- Complements ISQM 1 and IESBA Code of Ethics

Reporting standards / framework provide **a structured way for companies to report** on their sustainability-related risks and opportunities, incl. their transition plans

Download Risk Centre Disclosures Landscape Report here.

# Latest insights from IASB (1/2)

## Disclosure of climate-related uncertainties in financial statements under IFRS Accounting Standards[1]


IFRS Accounting

July 2025

Near-final staff draft

Disclosures about Uncertainties in the Financial Statements Illustrated using Climate-related Examples

Illustrative Examples

The International Accounting Standards Board (IASB) has not approved this near-final staff draft. The technical staff of the IASB is making this near-final draft of the illustrative examples available to give entities early sight of the examples expected to be issued in October 2025. This near-final draft is being made available for information only. The IASB is not requesting comments on it.

- **Examples illustrate six areas of required financial statement disclosure – widely applicable across sectors (financial, non-financial corporates, etc.)**
- **Example 1—Materiality judgements applying paragraph 31 of IAS 1 [paragraph 20 of IFRS 18]**
- **Example 2 & 3—Disclosure of assumptions (on impairment testing and general requirements)**
- **Example 4—Disclosure about credit risk**
- **Example 5—Disclosure about decommissioning and restoration provisions**
- **Example 6—Disclosure of disaggregated information**

1) IFRS Foundation, 2025 (final version expected to be published in Oct. 2025);

# Latest insights from IASB (2/2)

## Example on FI's reporting credit risks due to climate-related uncertainties using IFRS 7 (para. 35A-38)[1]

**Reporting of uncertainties due to climate-related risks leveraging IFRS 7 (para. 35A-38)**

**Example of loans to:**

- **agricultural customers (droughts could affect ability to repay)**
- **real estate customers (properties securing loans are subject to flood risk)**

**1. Determine if info about the effects of climate-related risks on credit risk exposure is material**

Consider the **size of the portfolios** exposed to climate-related risks

Consider the **significance of the effects of climate-related risks**
*(The effects depend on factors such as loan maturities and the nature, likelihood and magnitude of the climate-related risks)*

Consider **external climate-related qual. factors**
*(market, economic, regulatory and legal environments in which the entity operates can make the information more likely to influence the decisions of the primary users of the entity's financial statements)*

**2. Disclose that material information in the notes to the financial statements: how credit risk management practices relate to climate-related risks, and how these practices relate to ECL**

Explain **how climate-related risks are incorporated in the inputs, assumptions and estimation techniques for ECL modelling / judgment-based adjustments** of ECL

**Disclose information about collateral** held as security and other credit enhancements, e.g.,

- information about properties held as collateral that are subject to climate risk; and
- whether that risk is insured

**Include information about concentrations of climate-related risks** if not apparent from other financial statement disclosures the entity makes, e.g., **carrying amount** of the portfolios considered to be exposed to climate-related risks

1) IFRS Foundation, 2025 (final version expected to be published in Oct. 2025);

# Sustainability Disclosure Landscape Report for Risk Management: Insights from climate-focused case studies (2024 UNEP FI Risk Centre Disclosures WG Outcome)


## Objectives:

- To provide an overview of the sustainability disclosure landscape, including:
  - **Comparison between key standards/ frameworks**
  - **Conceptual foundations**
  - Current disclosure practices
  - Potential areas for improvements
- To provide case studies built on climate-related public disclosures to help address key disclosure gaps.

## Themes Covered:

- **Potential disclosure gaps**, based on latest FSB, IFRS reports & working group discussion outcomes
- **Case studies** from both financial institutions & real-economy companies on:
  - Least disclosed ISSB Core Content (on Strategy & Risk Management)
  - Transition plan disclosures per TPT element
  - Double materiality disclosures

## Key Findings:

**What can be improved:**

- Links between IROs and financial metrics
- Disclosures reflecting the interaction of impact and financial materiality
- Transition plan disclosures

**Implementation challenges:**

- Lack of standardised methodologies, challenges in quantifying IROs
- Data challenges
- Managing stakeholder & shareholder expectations

Designed to support practical understanding of how these disclosure gaps may be addressed, this report presents illustrative case studies from FIs & real-economy companies.

Download Risk Centre Disclosures Landscape Report here.

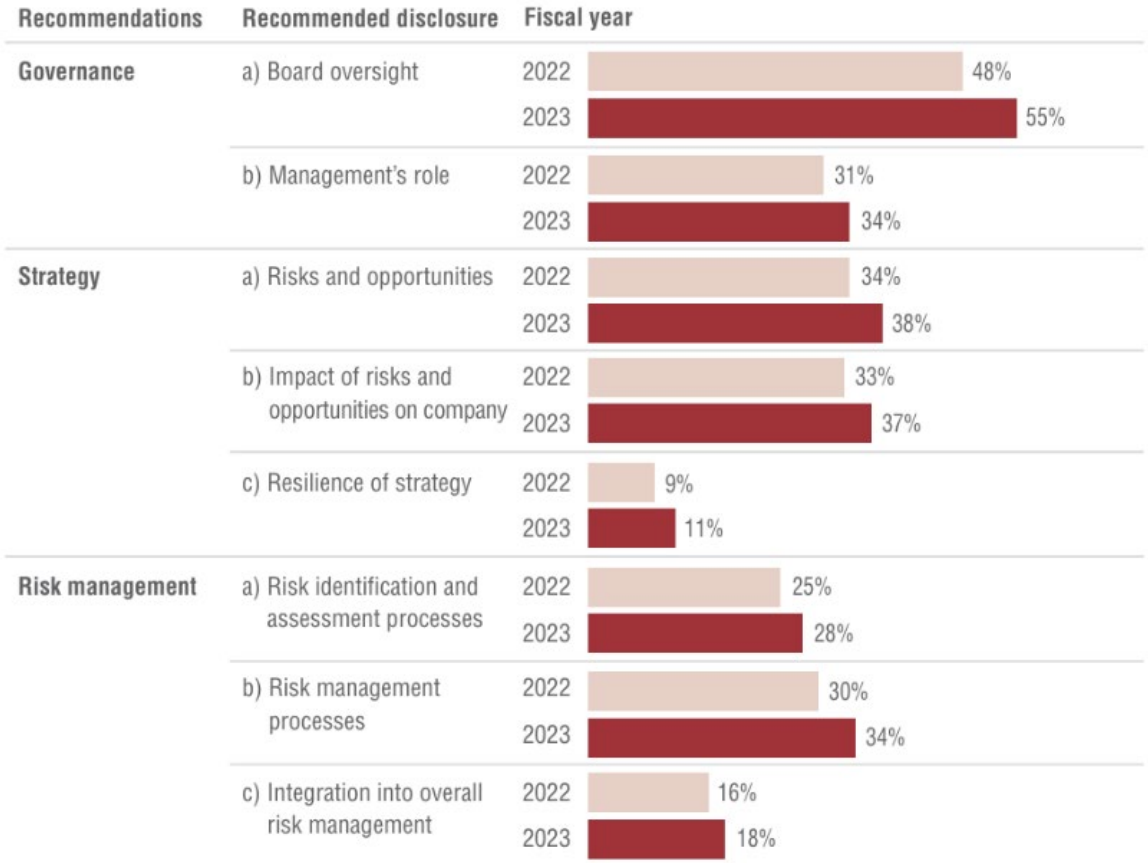
# What can be improved? (1/2)

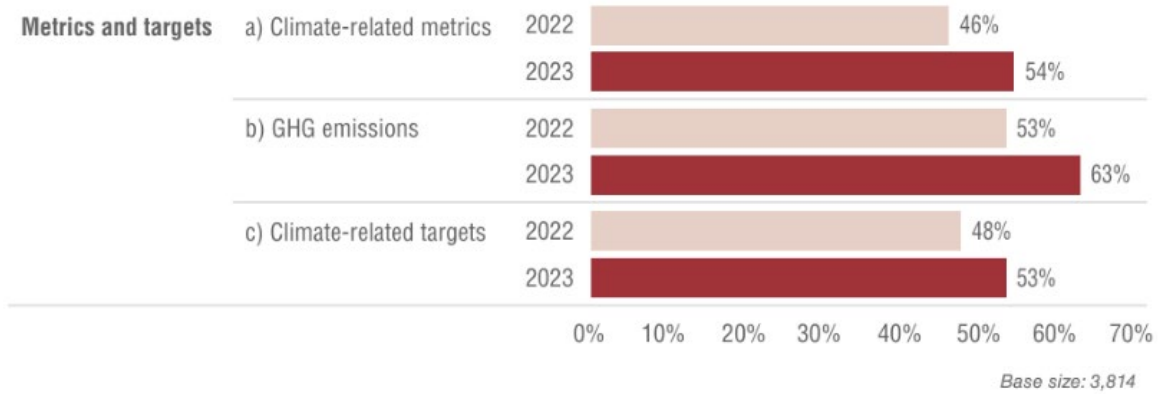
## The report finds disclosure gaps in 4 areas

| Link between IROs and financial metrics can be improved | Challenges with double materiality disclosures | Potential limitations with transition plan disclosures | Nascent social & nature-related disclosures |
|---|---|---|---|
| • Direct disclosures of quantified insights into all three financial dimensions—financial position, financial performance, and cash flows—were limited<br>• Credit risk disclosures more developed than other risk types<br>• Liquidity & cash flow impacts often qualitative | • Lack of standardized methodologies and challenges in quantifying IROs<br>• Data availability<br>• Managing stakeholder and shareholder expectations | • Largely narrative; limited quantification of financial impacts<br>• Lack of consensus on key definitions (e.g., 'hard-to-abate sectors') missing, reducing comparability<br>• Gaps hinder detection of greenwashing | • Low consistency and comparability<br>• Social disclosures are mostly qualitative due to lack of standardised indicators/methods |

Download Risk Centre Disclosures Landscape Report here.

# What can be improved? (2/2)




***Least reported*** TCFD pillars are:

1. Climate-related financial disclosures under the **Strategy** (disclosures of the *financial effects* of climate-related risks & opps); and
2. **Risk Management** (*processes* to identify, assess, prioritize and monitor climate-related opportunities)

1) IFRS Foundation, 2024;

# Implementation challenges (1/3)

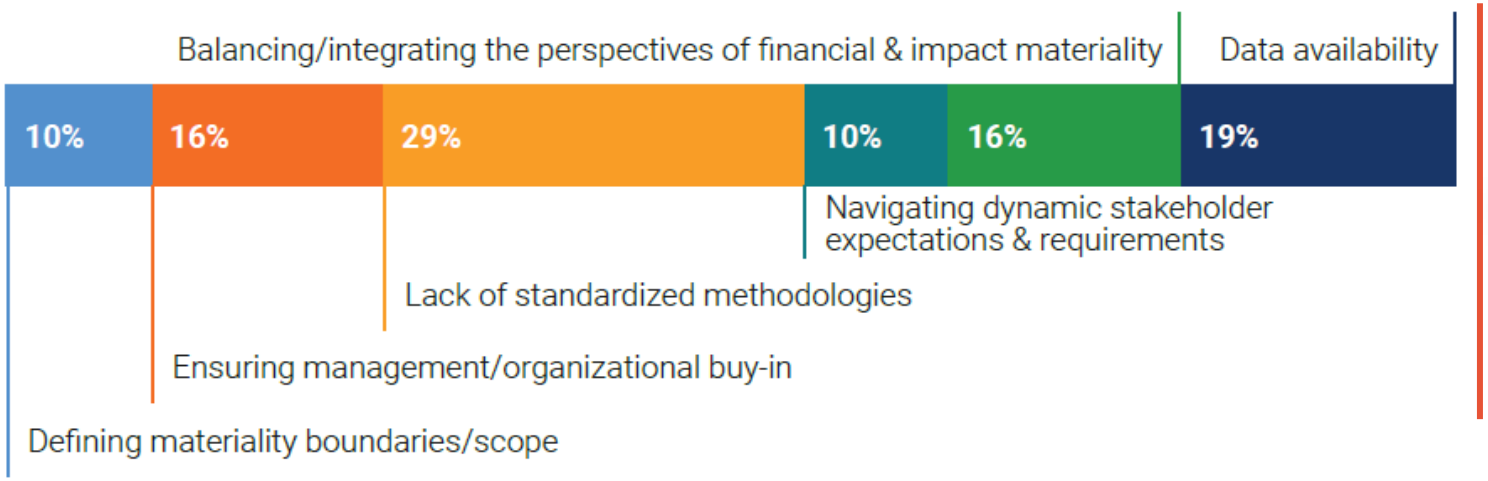



**Figure 27:** Feedback on challenges in double materiality assessments (UNEP FI, 2025)

## Top challenges:

- Lack of standardized methodologies and **challenges with quantifying IROs**
- **Data challenges**
- **Managing stakeholder and shareholder expectations**

Download Risk Centre Disclosures Landscape Report here.

1) FSB, 2025;

# Implementation challenges (2/3)

## Challenges with quantifying IROs & data gaps

### Challenges with quantifying IROs

- Ample evidence shows that environmental shocks like those arising from climate change could lead to financial risks
- But quantifying IROs in financial terms to reflect changes in financial position, financial performance, cash flows remains challenging, potentially because:

1. Difficulties with assessing IROs across varying time horizons
2. Modelling uncertainties across sectors / regions
3. Some financial effects from IROs can be seen as more indirect (e.g., changes in liquidity risks / cash flows) or may manifest long-term vs short-term nature of some conventional liquidity assessments
4. Lack of standardised indicators / clear methodological guidance (i.e., for social risks)

### Data gaps

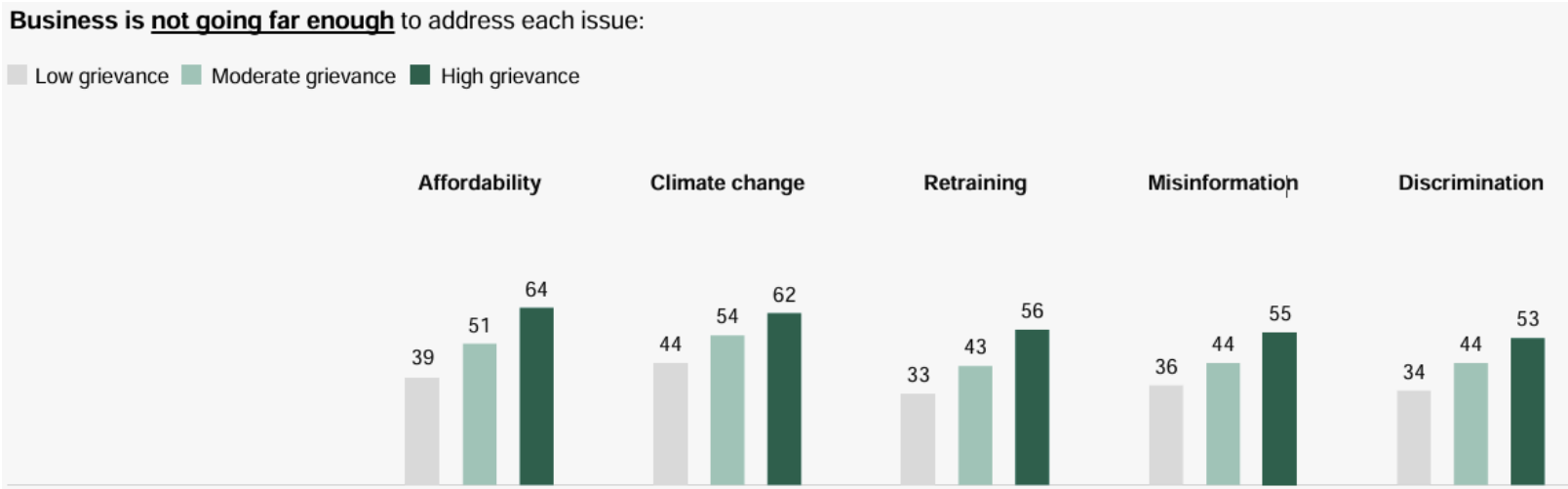
Data gaps could exist due to:

1. Regional disparities in data availability & quality
2. Potential size bias in some ESG ratings
3. Variations in disclosure requirements across jurisdictions could create challenges in cross-comparability of disclosures
4. Lower reliability of some ESG metrics in comparison to traditional financial metrics (e.g., metrics such as the Weighted Average Carbon Intensity (WACI) are highly sensitive to outliers and variations in investment allocations , which can compromise their reliability for assessing climate risks)
5. Access to asset- / facility-level information (e.g., on vulnerabilities) can hinder the assessment of physical risks

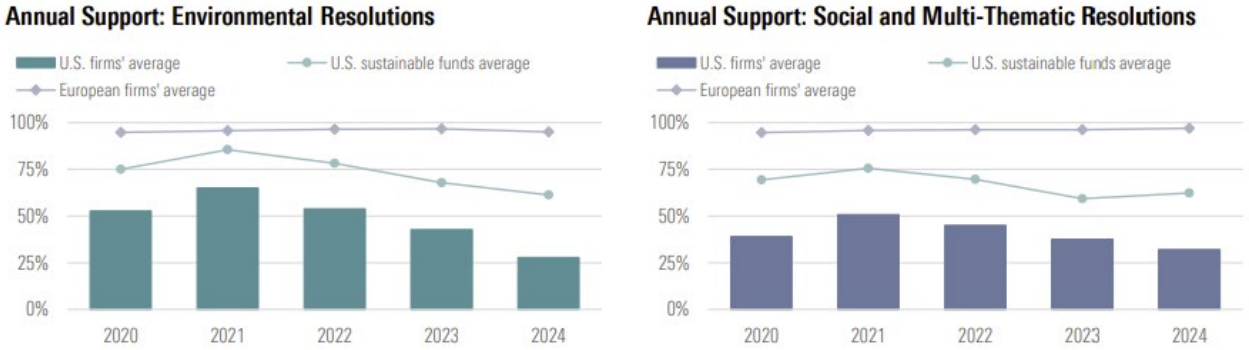
Download Risk Centre Disclosures Landscape Report here.

# Implementation challenges (3/3)

## Challenges with managing stakeholder and shareholder expectations




**Public sees business climate action as inadequate:**
62% of respondents in the 2025 Edelman Trust Barometer strongly believe that businesses are failing to take sufficient action on climate change[1]




Source: Morningstar proxy voting database, Morningstar Sustainalytics stewardship research. Data as of Jan. 15, 2025. Note: Data shown is for U.S. environmental and social resolutions with significant independent support for proxy years ended June 30. See Appendix 2 for full methodology.

**Regional differences in investor attitude:**
While European firms' support for significant environmental and social resolutions has remained high, there is a decline in support among firms in the U.S.[2]

Download Risk Centre Disclosures Landscape Report here.

1) Edelman Trust Institute, 2025; 2) Morningstar, 2025;

# Essential areas for capacity building & further guidance

## The readiness for sustainability disclosures could be improved by enhancing capacity-building & guidance

| Improve capability to manage & use data | Enhance conceptual understanding of IROs and financial effects | Align IRO assessments & disclosures with sectoral transition pathways | Provide a streamlined approach to key sustainability metrics for SMEs | Communicate modelling assumptions & potential limitations |
|---|---|---|---|---|

**Capacity building & targeted guidance** → **Improved ESG disclosures**


Download Risk Centre Disclosures Landscape Report here.

**To get involved or find out more reach out to:** unepfi-riskcentre@un.org

# 3 Linking disclosures to climate stress testing

# Linking disclosures to climate scenario analysis

## Both disclosures & scenario analysis are essential tools for risk management

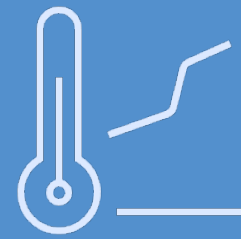
### Sustainability Disclosures

Provides transparency around risk exposures, risk mitigation & adaptation practices

**Enhanced Risk Management**

### Climate scenario analysis

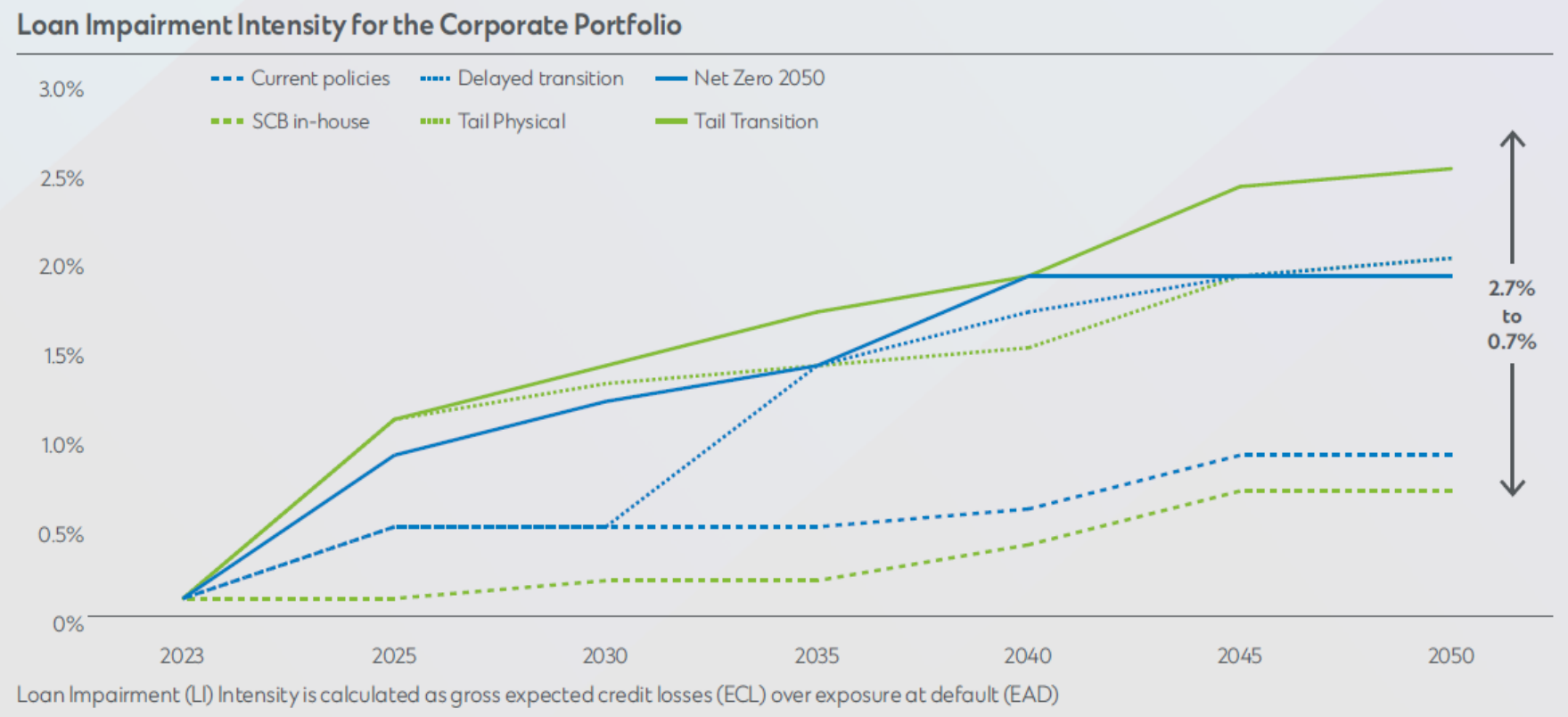
Enables forward-looking risk assessment under a range of plausible states of the world



- Sustainability-related risk disclosures (incl. transition plans) cover risk, strategy, and governance-related aspects, ensuring that sustainability/ and climate-related topics are addressed
- Regulators and standard setters increasingly expect disclosures to include forward-looking and decision-useful information
- Climate scenario analysis/ stress testing is one of the key tools recommended to meet this expectation, providing insights into plausible potential future outcomes, while disclosures also provide data to support climate scenario analysis / stress testing

# Using scenario analysis to quantify climate risks for disclosures

## Case example: Measuring climate risks through Loan Impairment Intensity




Climate transition risks are expected to be high in chosen scenarios, while the impact on financials, e.g., credit exposure, is measured by tracking changes in loan impairment (LI) intensity:

- In **the Net Zero 2050 scenario**, LI intensity is high, reflecting higher carbon prices and the cost of shifting to a low-carbon economy;
- In the **bespoke** Green Trade War **scenario**, LI intensity is even higher, as CBAM and subsidy competition significantly raise transition risk exposure.

**Loan Impairment (LI) Intensity** estimates the proportion of credit exposure at risk of impairment under chosen climate scenarios.
Download Risk Centre Disclosures Landscape Report here.

# 4 Climate stress testing methodologies

# Speakers

**Maheen Arshad**
Programme Specialist
UNEP FI

**Peter Plochan**
Principal Risk Management Advisor
SAS

**Sara Lambing**
Head of Integrated Risk Management
Raiffeisen Bank International AG

# Climate Stress Testing Methodologies: Current Practices, Challenges, and the Road Ahead

## In collaboration with SAS Institute

### Purpose:

- Outlines common approaches and key considerations for climate stress testing.
- Provides an update on the latest climate stress testing practices and lessons learned.
- Highlights areas of further developments and progress.
- Opportunity for methodology benchmarking

**Report to be published in October**

### Structure:

- Based on insights from a workshop series conducted with Risk Centre participants and guest speakers.
- Examines current methodological practices for climate stress testing.
- Supported with two supplemental documents:
  - Detailed case studies and practical examples
  - Survey results from a joint survey by UNEP FI and SAS

### Key Findings:

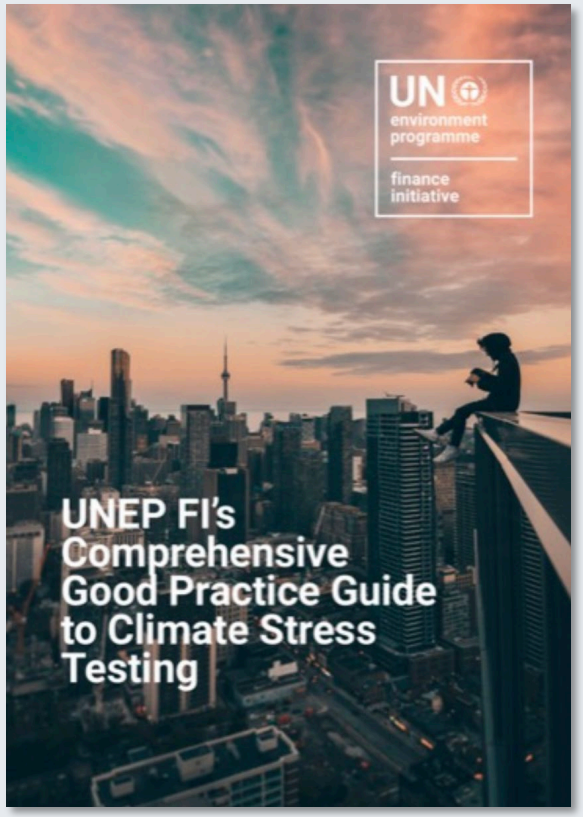
- Despite progress, climate stress testing has yet to attain the level of sophistication of traditional stress testing.
- Detailed and location-sensitive methodologies for modelling physical risk are developing.
- Capabilities are more established for credit risk than for market risk.
- Integration into BAU risk management practices is nascent.
- Several key trends will shape the next phase of methodological refinement.

Designed to **support risk professionals** in developing their climate stress testing methodologies and provide findings to assist in meeting supervisory expectations for managing climate risks.

# UNEP FI's Resources on Climate Stress Testing

## The latest report builds on previous publications on the topic

**UNEP FI's Comprehensive Good Practice Guide to Climate Stress Testing - 2021**




**A Comprehensive Review of Global Supervisory Climate Stress Tests - 2024**

# Main findings (1 of 5)

## Capabilities are more established for credit risk than for market risk.

### Modelling transition risk for credit risk stress testing

- **Key takeaway:** Banks are adopting granular, bottom-up approaches to model transition risks.
  - Banks are incorporating:
    - Indirect transmission channels through macroeconomic indicators
    - Direct transmission channels with climate-specific variables
  - These factors are integrated into advanced satellite models to generate climate risk scores at sectoral and portfolio levels.
  - Some banks employ counterparty-level modelling to translate shifts in financial metrics and revenue into credit rating adjustments and PD modifications.
- **Level of Maturity**: Becoming established

*Survey results and practical examples available*

### Modelling physical risk for credit risk stress testing

- **Key takeaway:** A more expansive and geographically granular approach to assessing physical risk-related credit risk has emerged.
  - Most banks perform assessment of corporates at the geographic coordinate level.
  - Geolocational data are more widely available for immovable property collateral, in comparison to location of firms' economic activities through the value chain.
  - Adequately modelling second- and third-order impacts remains a challenge
- Some banks assess clients' adaptive capacity and some banks are incorporating insurance considerations to a certain extent.
- **Level of Maturity**: Becoming established

*Case studies and survey results available*

### Approaches for market risk-related climate stress testing

- **Key takeaway:** Climate stress testing methodologies for market risk remains under-developed.
  - Methodologies focus on translating scenario variables into market risk drivers but lack granularity to reflect impacts across asset class, market structure, activity, and market liquidity.
  - Metrics that can be used to quantify the financial impact are P&L, RWA and Climate VaR.
- **Level of Maturity:** Nascent

*Case study and practical examples available*

The **dynamic balance sheet modelling approach** is applied only by one-fifth of the surveyed banks

# Main findings (2 of 5)

## Banks are increasingly conducting internal climate stress tests to support risk management, in addition to supervisory exercises.

**1. Climate scenarios used as inputs:**

- **Key takeaway:** Choice of climate scenarios differs by the time horizon.
  - IPCC SSP5-8.5, IPCC SSP2-4.5, and NGFS Current Policies scenarios are common long-term physical risk scenarios used.
  - NGFS Delayed, Net Zero, and Below 2 Degrees scenarios are common long-term transition risk scenarios used.
  - Internally developed short-term scenarios are commonly used to assess short-term climate risks.
- **Level of Maturity:** Becoming established

**2. Modelled Results:**

- **Key takeaway:** Increased use of BAU risk indicators by banks to measure the impact of climate risk.
  - Most common exposure metrics, KPIs and KRIs on which banks estimate the impact of climate risk are:
    - ECL
    - RWA/Capital
    - P&L
- **Level of Maturity:** Becoming established

*Survey results and practical examples available*

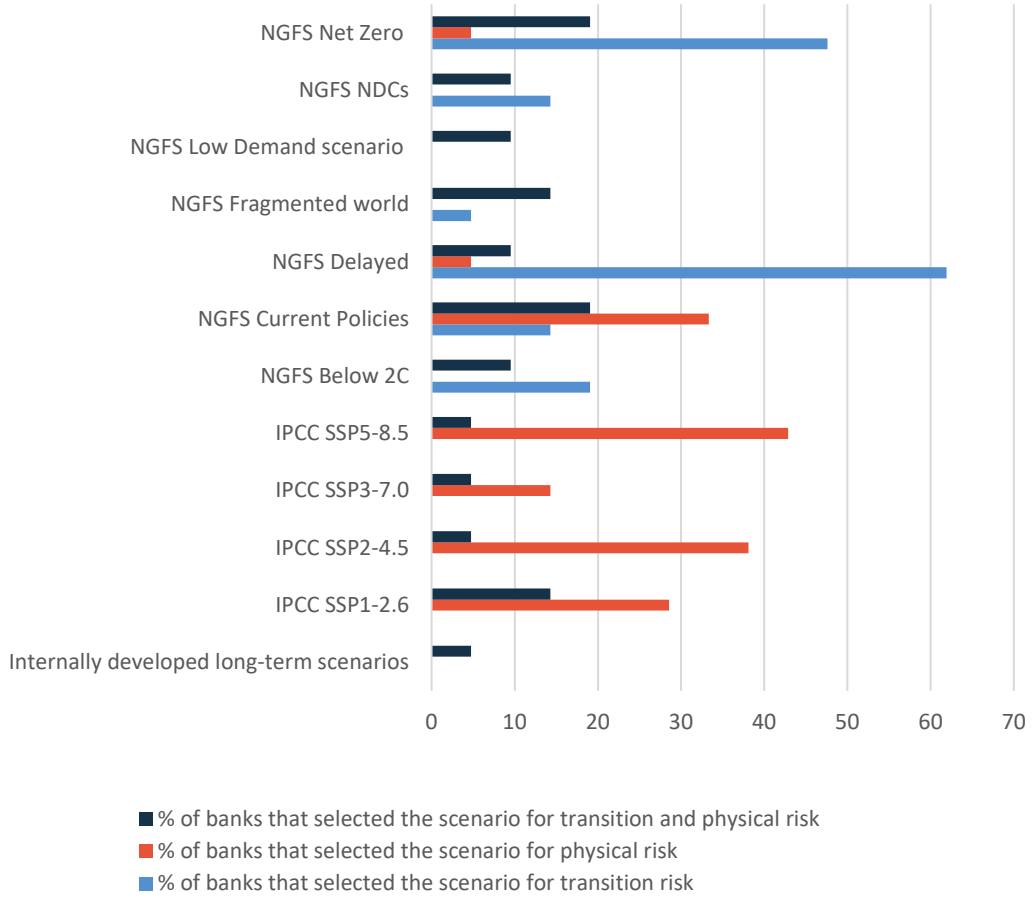



**Figure: Climate scenarios used by banks for long-term climate scenario analysis**

# Main findings (3 of 5)

## Banks only at an early stage of embedding climate risk models into their Model Risk management frameworks

**Climate risk models and Model Risk Management**

- **Key takeaway:** Banks have yet to start incorporating regulatory & MRM considerations into their climate risk management frameworks
  - Sensitivity analysis on the impact of scenario & model choices remains a niche practice
  - Focusing on defining and classifying climate models used.
  - Extending existing, validated BAU risk models with climate-related modules or overlays.
  - Conducting internal validation of bespoke climate risk models, often developed in-house or with limited reliance on vendor tools.
- **Level of Maturity:** Nascent

***Survey results and practical examples available***

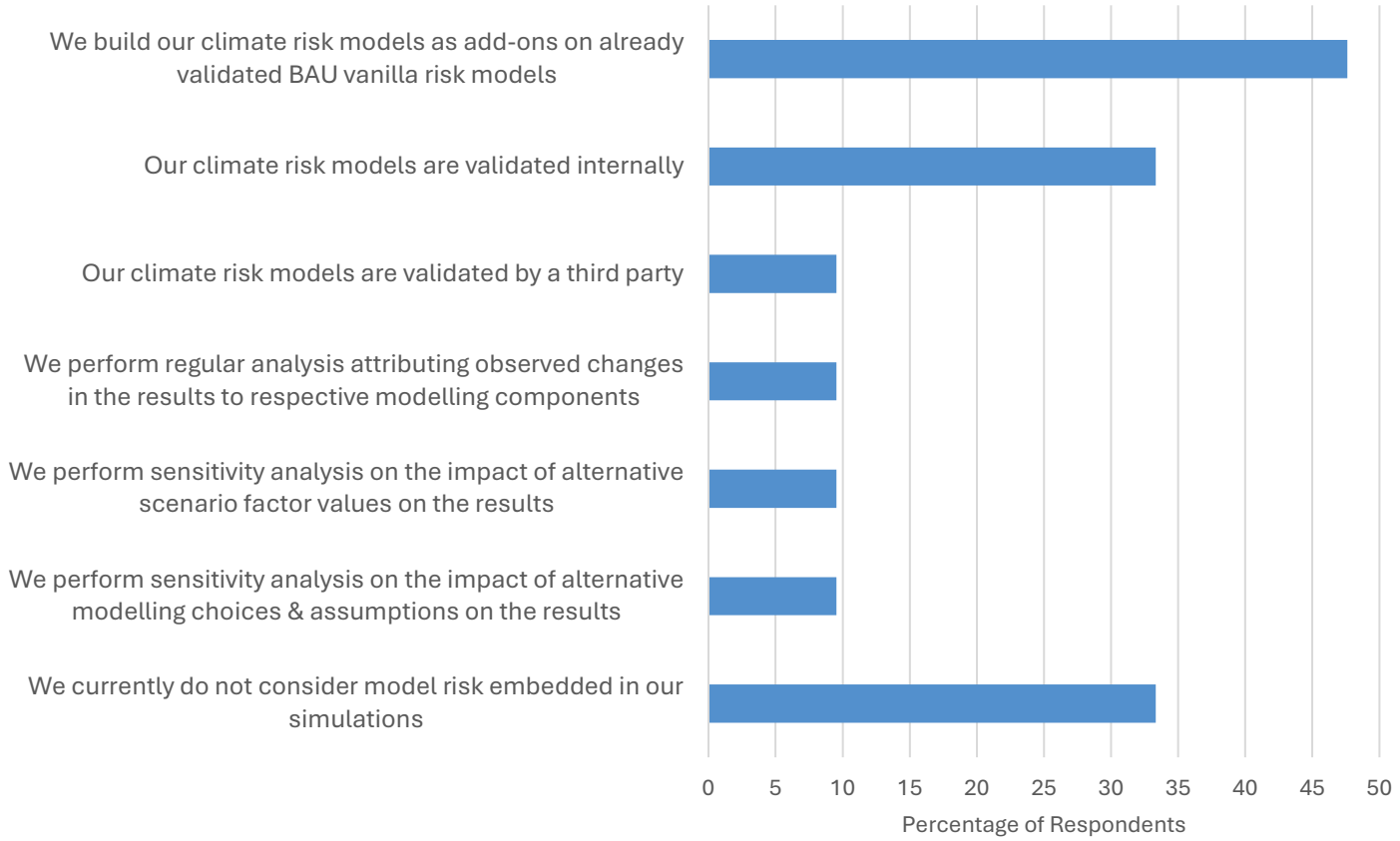



**Figure: Approaches used to address model risk in simulation**

1. HKMA, 2023

# Main findings (4 of 5)

## Broader adoption of climate-related regulations and interoperable practices can help embed climate considerations more effectively into risk management processes

**Integrating Climate Stress Testing into Business-as-Usual Risk Management and Portfolio Decarbonization Efforts**

- **Key takeaway:** Progress in embedding climate stress testing into BAU stress testing, risk management, and capital management varies across banks.
  - Increasingly, banks view climate risk not as an isolated issue but as a key driver influencing broader financial risks.
  - Banks are working to integrate climate risk drivers into PD and LGD models, with implementation expected by many within the next one to three years.
- Apart from regulatory stress testing requirements, banks are conducting climate scenario analysis to:
  - Identify sustainable finance opportunities
  - Engage clients on transition pathways
  - Set credible decarbonization targets
- **Level of Maturity**: Nascent

***Survey results and practical examples available***

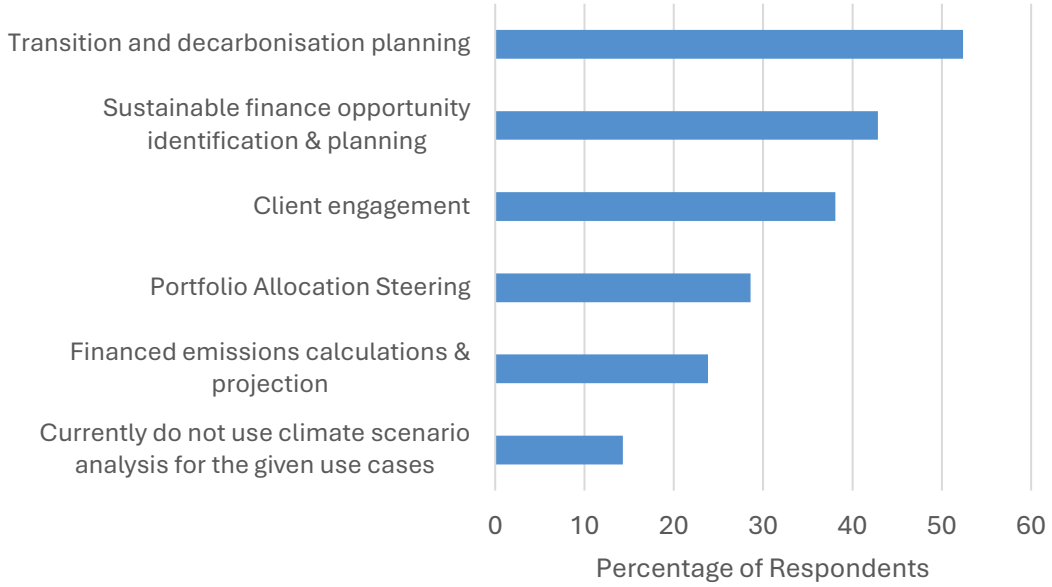



**Figure: Use cases for climate scenario analysis**

# Main findings (5 of 5)

## Current infrastructure support for performing climate stress testing remains insufficient

**Robust & latest infrastructure combined with a more integrated stress testing approach can support banks in addressing number of the identified challenges:**

- **Key takeaways:**
  - Improving transparency and a**utomating sensitivity analysis** helps to assess impact of various scenarios, modelling choices and address Model Risk
  - The extent of integration with existing forward-looking activities defines the **synergy and automation benefits** that can be achieved
  - High-performance technology assists banks in exploring more sophisticated & accurate approaches (dynamic balance sheet, lower granularity…)
  - Speeding up the process helps to explore additional use cases and generate **more business value** (e.g. assessing impact of alternative actions & strategies)

***Survey results and case study available***

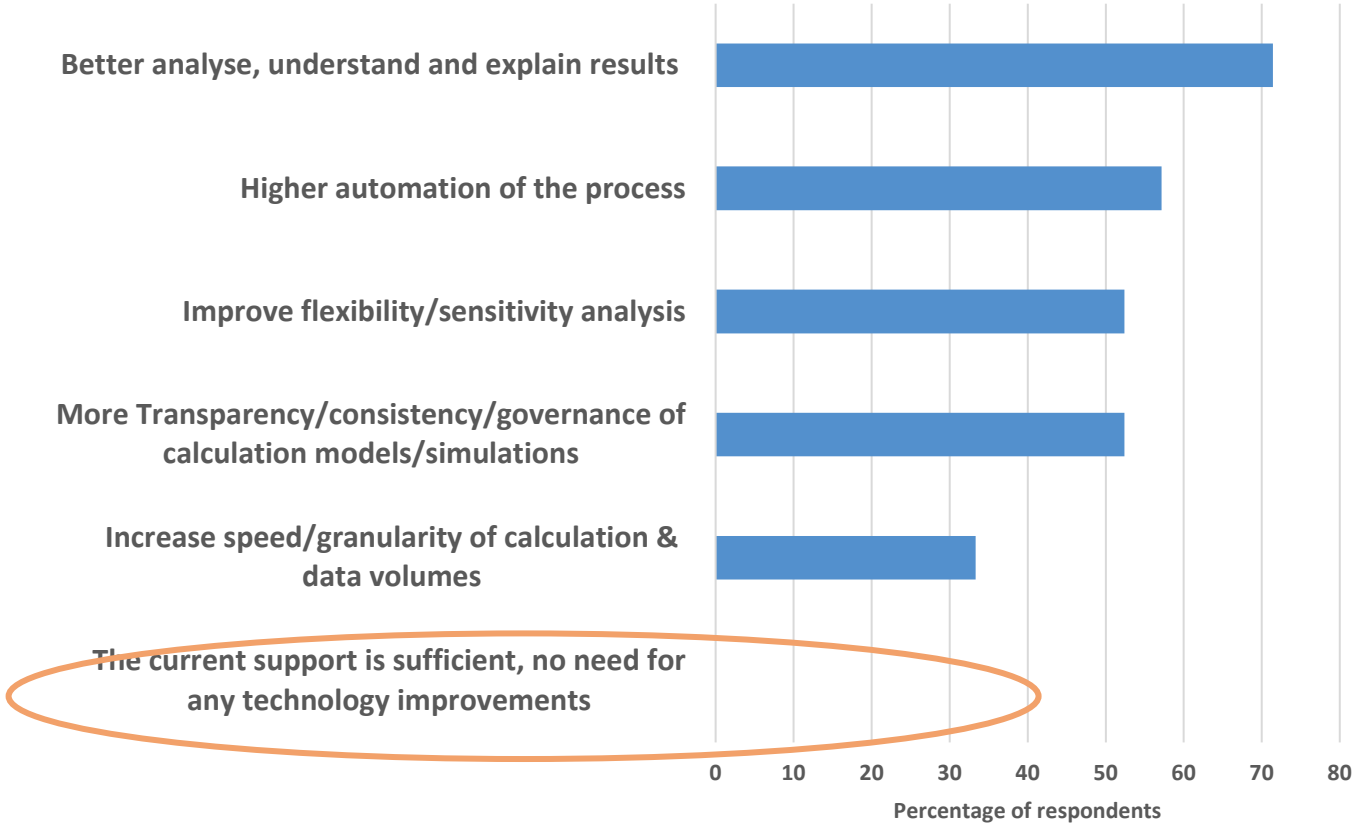



**Figure: Identified technology benefits and areas of support**

1. *The Bank for International Settlements, 2021*

# Next Steps and Areas of Developments (1 of 2)

## Several key trends are expected to shape the next phase of methodological refinement

Integration of climate risk into business and wider sustainability risks

Next-Generation Climate Scenario analysis, covering scenario design, short-term scenarios, utilizing latest technologies such as AI/ML

Improvements in modelling approaches, related to physical risk modelling, understanding transmission channels and new data sources

Governance, covering climate model validation and model risk, adoption of more sophisticated governance standards, and Board accountability

Reporting of climate stress testing results, with alignment of public disclosures with IFRS S2

# Next Steps and Areas of Developments (2 of 2)

*Reflections from a UNEP FI member*

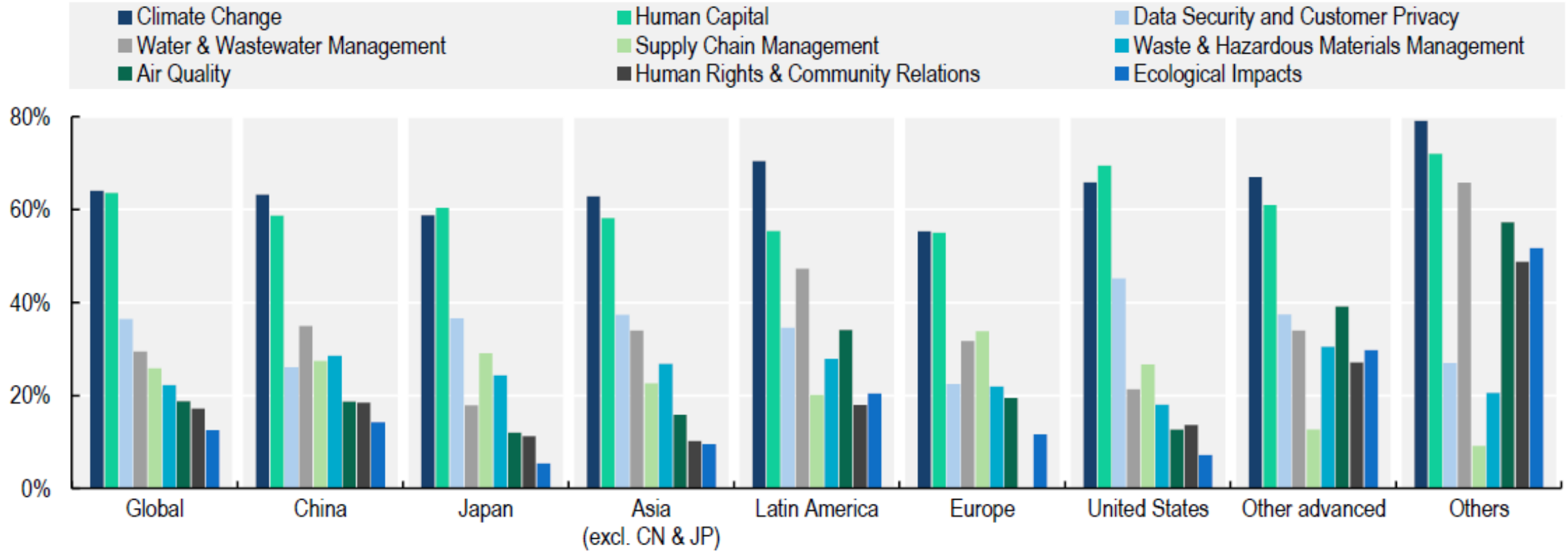
# 5 Discussion, Q&A


QUESTIONS
ANSWERS

# What could be financially material risks for businesses?

## Climate change & human capital pose financially material risks

Sustainability-related risks considered as financially material for companies[1]




1) OECD, 2024

# Integration of sustainability risk & opp disclosures in regulations / regulatory guidance (1/4)

| Jurisdiction | Name of the Regulations / Guidance / Rules | Mandatory / Voluntary | Effective Dates | Affected Entities |
|---|---|---|---|---|
| **Australia** | Australian Accounting Standards Board (AASB)'s AASB S1 and AASB S2 (based on IFRS S1 & S2) | AASB S1 is voluntary whereas AASB S2 is mandatory for certain entities | Commencement dates range from 2025 to 2027 | Entities that are required to prepare a sustainability report containing climate-related financial information under Chapter 2M of Corporations Act 2001 |
| **Bangladesh** | Guideline on Sustainability and Climate-related Financial Disclosure published by Bangladesh Bank (based on IFRS S1 & S2) | Mandatory | Commencement dates range from 2024 to 2027 | Banks and finance companies |
| **Brazil** | Comitê Brasileiro de Pronunciamentos de Sustentabilidade (CBPS)'s CBPS 01 and CBPS 02 (based on IFRS S1 & S2) | Mandatory | From 2026 | Publicly held companies registered with the Brazilian Securities and Exchange Commission (CVM) |
| **Canada** | The Canadian Sustainability Disclosure Standards (CSDSs), including CSDS 1 and CSDS 2 (based on IFRS S1 & S2) | Voluntary unless mandated by provincial and territorial regulators | From 2025 | Not specified |
| **China** | Basic Guidelines for Corporate Sustainability Disclosure | Expected to become mandatory | To be defined | To be defined - expected to include listed and listed companies, including small and medium-sized enterprises (SMEs) |
| **European Union** | European Sustainability Reporting Standards (ESRS) (EUR-Lex, 2023) | Mandatory | Commencement dates range from 2025 to 2027 | Large public-interest entities, large undertakings that are not public interest entities |

# Integration of sustainability risk & opp disclosures in regulations / regulatory guidance (2/4)

| Jurisdiction | Name of the Regulations / Guidance / Rules | Mandatory / Voluntary | Effective Dates | Affected Entities |
|---|---|---|---|---|
| **Hong Kong, China** | Hong Kong Financial Reporting Standard Sustainability Disclosure Standards (HKFRS SDS), including HKFRS S1 and HKFRS S2 (fully aligned with IFRS S1 & S2) | Mandatory | Commencement dates range from 2025 to 2028 | Large listed issuers, non-listed financial institutions carrying a significant weight |
| **India** | Business Responsibility and Sustainability Report (BSBR)<br><br>Issued by the Securities and Exchange Board of India (SEBI) | Mandatory | From financial year 2022-2023 and onwards | Top 1000 listed entities by market capitalization (SEBI, 2021). |
| **Indonesia** | Pernyataan Standar Pengungkapan Keberlanjutan (PSPK), including PSPK 1 and PSPK 2 (based on IFRS S1 & S2) | To be determined | From 2027 (proposed) | To be determined |
| **Japan** | The Sustainability Standards Board of Japan (SSBJ) Standards (based on IFRS S1 & S2) | To be determined – The SSBJ Standards were developed under the assumption that SSBJ Standards would eventually be required | To be determined | Prime Market listed companies (anticipated) |

# Integration of sustainability risk & opp disclosures in regulations / regulatory guidance (3/4)

| Jurisdiction | Name of the Regulations / Guidance / Rules | Mandatory / Voluntary | Effective Dates | Affected Entities |
|---|---|---|---|---|
| **Jordan** | Amman Stock Exchange Climate-related Disclosures Regulatory Framework | The regulatory framework only mandates IFRS S2 and the climate-relevant portions of IFRS S1 | 2026 (voluntary), 2027 (mandatory) | Companies listed on ASE20 Index of the Amman Stock Exchange |
| **Malaysia** | The National Sustainability Reporting Framework (NSRF) using IFRS S1 & S2 as baseline | Mandatory | Commencement dates range from 2025 to 2027 | Main market and ACE-listed issuers, large non-listed companies |
| **Nigeria** | IFRS Sustainability Disclosure Standards | Mandatory | Commencement dates range from 2028 to 2030 | Public interest entities (from 2028), SMEs (from 2030) |
| **Pakistan** | IFRS Sustainability Disclosure Standards | Mandatory | Commencement dates range from 2025 to 2027 | Listed companies, unlisted public interest companies |
| **Singapore** | IFRS Sustainability Disclosure Standards | Mandatory | Commencement dates range from 2025 to 2026 | All issuers |

# Integration of sustainability risk & opp disclosures in regulations / regulatory guidance (4/4)

| Jurisdiction | Name of the Regulations / Guidance / Rules | Mandatory / Voluntary | Effective Dates | Affected Entities |
|---|---|---|---|---|
| **Switzerland** | The Swiss Code of Obligations (Art. 964a-c et seq.); and Ordinance on Climate Disclosures<br><br>Based on latest consultation outcome, the Swiss Federal Council should not be allowed to specify any equivalent standards other than the ESRS) (Bundesamt für Justiz, 2025. | Mandatory | Commencement dates range from 2022 to 2024 | Public interest entities that meet certain thresholds concerning company size, balance sheet total, or sales |
| **Türkiye** | The Turkish Sustainability Reporting Standards (TSRS), including TSRS 1 and TSRS 2 (based on IFRS S1 & S2) | Mandatory | From January 2024 | Listed companies, certain banks and non-bank financial institutions (NBFIs) |
| **United Kingdom of Great Britain & Northern Ireland** | UK Sustainability Reporting Standards (UK SRS)<br><br>Based on IFRS S1 & S2, with amendments concerning transition relief, requirements to use the Global Industry Classification Standard (GICS), among others. | To be determined | To be determined (consultation on exposure drafts of UK SRS S1 and UK SRS S2 until 17 September 2025) | Listed companies in the United Kingdom of Great Britain & Northern Ireland (United Kingdom), potentially companies that do not fall within the Financial Conduct Authority (FCA)'s regulatory perimeter |
| **United States of America** | The United States of America Securities and Exchange Commission (US SEC) climate disclosure rules / The Enhancement and Standardization of Climate-Related Disclosures for Investors | To be determined | To be determined (litigation pending, US SEC paused legal defence) | US SEC registrants (litigation pending, US SEC paused legal defence) |
| **California (United States of America)** | California Senate Bills SB-219, SB-253, SB-261 | Mandatory | Commencement dates range from 2026 to 2027 | Certain companies meeting thresholds on total annual revenues and doing business in California |