



2023 SUSREG ANNUAL REPORT

AN ASSESSMENT OF SUSTAINABLE FINANCIAL
REGULATIONS AND CENTRAL BANK ACTIVITIES



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The development of the Sustainable Financial Regulations and Central Bank Activities (SUSREG) framework has been a collaborative effort. In particular, the authors would like to thank Deloitte Switzerland's sustainable finance team (Jérôme Crugnola-Humbert, Kaja Brodtkorb, Antoine Wannier, Greta Cenotti, Anna Birkelbach, Simon Itim, and Grigorij Grapendaal) for their support to the SUSREG initiative.

The authors would like to thank all current and former WWF colleagues for their contributions at various stages of the project, in particular Ristiyanti Hayu Pertiwi, Kristina Anguelova, Sebastien Godinot, Vedran Kordic, Edith Verhoestraete, Carolin Carella, Pina Saphira, Jochen Krimphoff, Christine Mwangi, Sara Hernandez, Maria Fernanda Contreras del Valle, Laurence Picton, Hannes Peinl, Rizkiasari Yudawinata, Tor Hjorth-Falsted and those who wished to remain anonymous.

WWF would like to thank the individual, organisations and institutions who contributed to make the SUSREG framework and assessment more robust and the results more reliable, by responding to the initial consultation and providing feedback on the assessment results.

This project is part of the International Climate Initiative (IKI). The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety and Consumer Protection supports this initiative on the basis of a decision adopted by the German Bundestag.



This report is part of:
WWF Greening Financial Regulation Initiative
(https://www.panda.org/discover/our_focus/finance/greening_financial_regulation/)
Asia Sustainable Finance Initiative (www.asfi.asia)

Production and design: Sweetea Patel – The Corner Shop Creative (www.thecornershop.me)

Co-published in December 2023 by
WWF - World Wide Fund for Nature, Switzerland and
WWF - World Wide Fund for Nature, Singapore.

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WWF is one of the world's most respected and experienced conservation organisations, with over 5 million supporters and a global network active in more than 100 countries. WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which people live in harmony with nature. WWF has worked with the finance sector for more than a decade via innovative collaborations that seek to integrate ESG risks and opportunities into mainstream finance, to redirect financial flows in support of the global sustainable development agenda. Through its Greening Financial Regulation Initiative (GFRI), WWF engages specifically with central banks, financial supervisors as well as insurance regulators on the need to fully integrate climate and environmental risks into mandates and operations. The GFRI tracks regularly how central banks and supervisors are making progress via its SUSREG tool. It also undertakes research, capitalising on in-house expertise and external partners, and offers targeted assistance, trainings and workshops to individual financial supervisors, central banks and policy makers using scientifically based data, tools and methodologies. More info at: panda.org/gfr
Contact: gfr@wwf.ch

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"As central banks and supervisors, we have every reason to be concerned, because it's an illusion to think we can preserve financial stability if this degradation [of nature] continues."

KLAAS KNOT, PRESIDENT OF THE NETHERLANDS BANK, AT THE LAUNCH EVENT OF THE NGFS CONCEPTUAL FRAMEWORK ON NATURE-RELATED FINANCIAL RISKS

"Contributing to assess, reduce and manage the impact of the climate-related risks is, to us, an integral part of the central banks and supervisors' mandates, both for monetary strategy and financial stability."

BANQUE DE FRANCE

"The financial sector needs to come to grips with the reality that like climate, nature-related risks are already presenting a significant threat to our economies and society that can no longer be ignored."

NOR SHAMSI AH MOHD YUNUS, GOVERNOR OF THE CENTRAL BANK OF MALAYSIA, AT THE LAUNCH OF THE REPORT "EXPLORING NATURE-RELATED FINANCIAL RISKS IN MALAYSIA"

"The integration of sustainability aspects into central bank activities is a continuous process. We strive to constantly deepen our analytical capabilities to better understand how climate change and climate policy affect the economy and the financial system. Climate change significantly impacts our mandate, and the deeper we delve into this issue, the clearer the broad implications for all aspects of our work become. The WWF's SUSREG provides a valuable global benchmark that creates transparency about central banks' performance and progress."

DEUTSCHE BUNDESBANK

”

EXECUTIVE SUMMARY

This year marks the third edition of our in-depth Sustainable Financial Regulations and Central Bank Activities (SUSREG) assessment since its inaugural publication in 2021. The SUSREG methodology is the result of numerous strategic engagements and cross-fertilization of technical knowledge with central banks, financial supervisors, expert bodies and WWF's network of national offices over the years.

The assessment and its recommendations represent an interactive platform for WWF and central banks and financial supervisors across the world to discuss gaps, good practices, challenges and future plans to ensure that the financial sector fully accounts for climate- and nature-related risks and opportunities. As a global science-based conservation organization, we believe in "together possible". We support the mandate of central banks and financial supervisors as the financial and economic driving force toward a net zero, nature-positive^[1] and socially equitable economy.

The assessment indicators have been extended this year to cover just transition, central bank phase-out plans, water-related risks, the availability of SME guidelines, and issuance of sovereign sustainability bonds. The assessment has expanded from 44 countries in 2022 to 47 in 2023, adding Türkiye, Slovenia and Paraguay into the assessment. The full list of countries covered by the 2023 assessment can be found in Annex 1 of this report. Please note that the cut-off date for the 2023 SUSREG assessment is the 31st August 2023, documents issued after this date were not reflected in this assessment.

[1] Nature-positive is defined as halting and reversing nature loss, measured from 2020 levels, by increasing the health, abundance, diversity, and resilience of species, populations, and ecosystems so that by 2030 nature is visibly and measurably on the path of recovery.

While notable progress has been made by several central banks and financial supervisors, key gaps remain with uneven level and pace of regulatory and supervisory implementation based on the following key findings:

- Regulations or supervisory expectations on sustainable banking have been issued by 67% of all countries in scope in 2023, compared to 62% in 2022. Meanwhile, the number has remained unchanged at the 62% level for insurance supervision.
- The current focus remains primarily on climate. Broader environmental and social issues are falling behind in banking & insurance supervision and central banking activities.
- A staggering 68% of high-income countries have yet to adopt adequate climate and environmental banking supervision policies
- 20 countries with net-zero targets still have notably weak climate banking supervision policies with less than 50% fulfilment of SUSREG criteria.

- Some of the highest emitting countries aligned with less than 50% of the SUSREG climate-related banking & insurance supervision criteria, a stark contrast to their significant carbon emissions.
- Banking & Insurance supervision are falling short in almost all countries, including the most mega-biodiverse countries in the Asia-Pacific and Latin America, resulting in high exposure to nature-related risks.
- Out of 45 central banks in scope, only 8 have shown commendable progress in integrating climate risks into their monetary policy and central banking activities.

In line with our broader, long-term efforts to deliver net-zero and nature-positive outcomes, we propose key recommendations for central banks, financial regulators, and other relevant stakeholders in the first chapter.

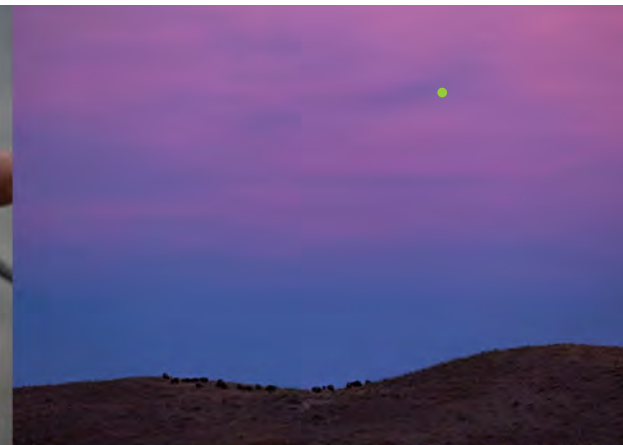
The full assessment results are available at SUSREG interactive website at:
<https://www.wwf.sg/susreg/assessments/>

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RECOMMENDATIONS

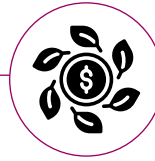


SUSREG 2023 KEY RECOMMENDATIONS

Building on our Roadmap for a climate safe and nature positive economy that recommends central banks and financial supervisors to add new nominal anchors alongside existing inflation targets, namely: the 1.5°C global warming ceiling which requires that GHG emissions are reduced to net zero by 2050 and a qualitative target of fully recovering and restoring biodiversity by 2050, WWF urges central banks, financial supervisors and regulators to the following recommendations.

"The risk of not delivering on our mandate is real if we don't take climate and nature into consideration. Preserving price stability means preserving climate and nature stability. It is our mandate. It is our culture. Unsere Stabilitätskultur."

FRANK ELDERSON, MEMBER OF THE EXECUTIVE BOARD AND VICE-CHAIR OF THE SUPERVISORY BOARD OF THE EUROPEAN CENTRAL BANK



01

Publish own transition plans for a low-carbon and nature-positive economy that are transparent and measurable, and encompass all central banking, financial regulation, and supervision activities.



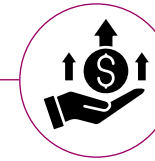
02

Apply a precautionary approach using all micro and macro prudential supervision tools available. Instead of waiting for the perfect data and models, financial supervisors need to prioritize preventive and impactful measures in the face of uncertain and potentially catastrophic environmental threats.



03

Utilize their monetary policy toolkit to address risks stemming from environmental and social issues while phasing-out the most harmful sectors from their portfolios.



04

Impose higher capital requirements to financial institutions' lending, investing and insuring companies with always environmentally-harmful activities.

The complete set of recommendations can be found in the following pages.

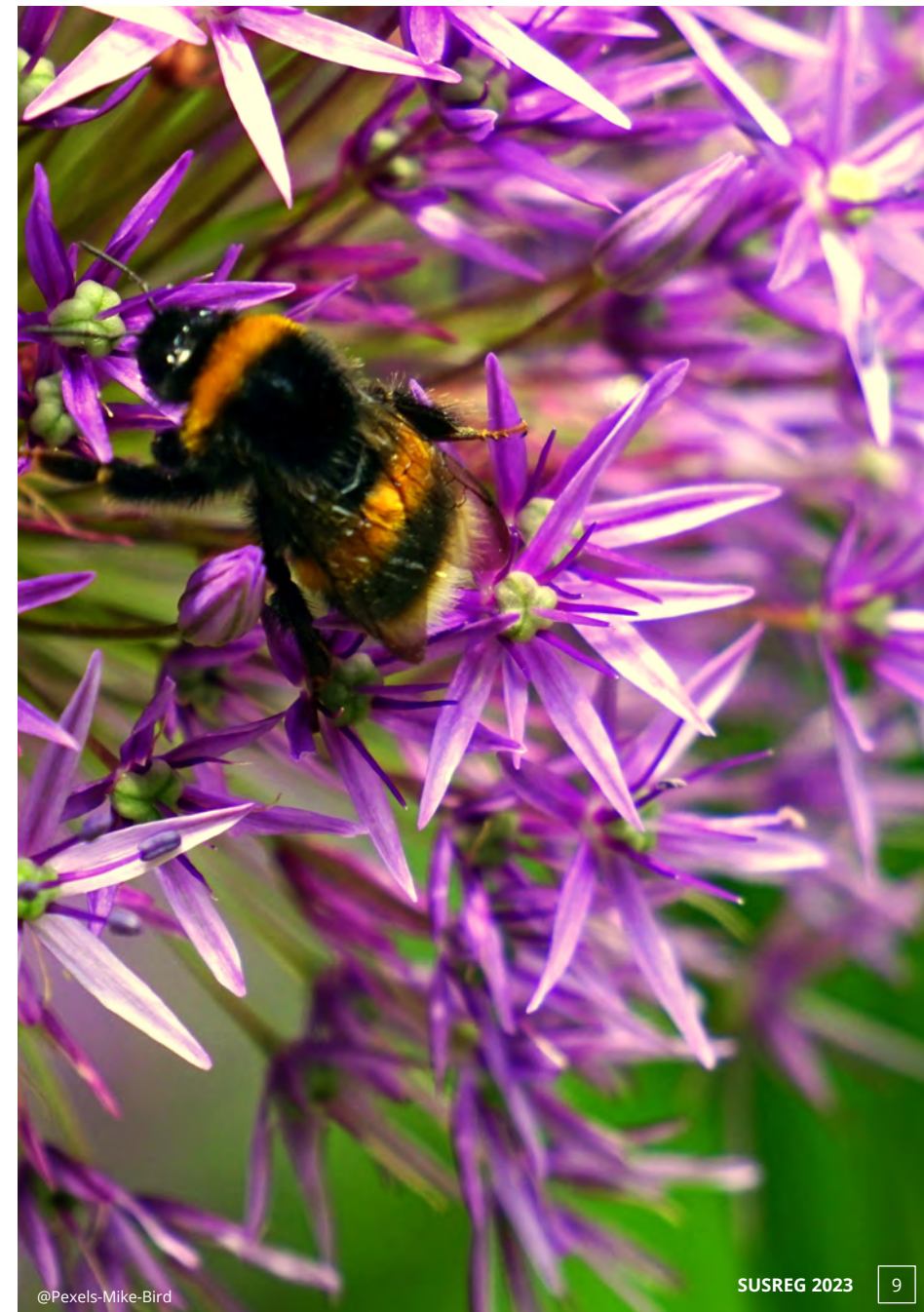
INCORPORATE CLIMATE AND NATURE RISKS INTO CENTRAL BANKS AND FINANCIAL SUPERVISORS' OWN OBJECTIVE AND STRATEGY

01. **Officially set science-based, climate- and environmental-related objectives:** Central banks and financial supervisors should officially define a 1.5°C pathway as part of their objectives, underpinned by a plan of reaching net-zero CO₂ emissions of the economy by 2050. Central banks should also define a 'full biodiversity recovery by 2050' as part of their objectives which is underpinned by a plan to reach a nature-positive economy by 2030.
02. **Lead by example and publish own transition plans to a low-carbon, nature-positive economy:** Central banks and financial supervisors must lead by example and provide necessary clarity and forward guidance to financial markets actors by publishing their own clear and detailed transition plan (with clear quantifiable climate and biodiversity goals for 2025, 2030, and 2050 covering all central banking, financial regulation, and supervision activities).

STRENGTHEN FINANCIAL SUPERVISION OF E&S RISKS AND PRIORITIZE THE MOST IMPACTFUL MEASURES

01. **Adopt precautionary approach in setting micro and macro prudential regulation:** Financial regulators often approach climate change and nature loss primarily from the perspective of financial risks, which can lead to waiting for the perfect models and data become available to quantify these risks. However, Principle 15 of the 1992 Rio Declaration states that "where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation". A precautionary financial policy mindset recognizes the importance of measuring the risks, but instead of waiting for precise measurements, financial supervisors should prioritize preventative action to address the uncertain and potentially catastrophic environmental threats. This can be achieved by establishing a strong micro and macro-prudential supervision such as through; (a) integrating this precautionary approach into pillar one of banks and insurers by asking for more capital for harmful activities; (b) managing concentration risk at micro and macro level; (c) using all regulatory tools to mitigate credit, market and operation risks stemming from climate and nature risks; (d) reviewing the implementation of these supervisory requirement with corrective actions taken in cases of non-compliance.
02. **Mandate credible climate and nature target setting with appropriate review and monitoring:** mandate financial institutions to (a) set and publicly disclose short-, intermediate- and long- term targets to support meeting the goals of the Paris Agreement and the Kunming-Montreal Global Biodiversity Framework; (b) use widely accepted science-based scenarios to set targets; and (c) regularly review targets to ensure consistency with current climate and environmental science, including the Science Based Target Initiative (SBTI) on climate targets and Science Based Targets Network on nature targets (SBTN).

03. **Make climate and nature transition plans mandatory for financial institutions and support the disclosure of transition plan for corporations:** Central banks, financial regulators and supervisors should (a) require financial institutions to develop and disclose science-based targets and credible climate and nature transition plans on a mandatory basis; (b) require financial institutions to engage clients and portfolio companies to set clear expectations to disclose credible transition plans and act on escalation processes in the event of no or insufficient action; and (c) mandate the public disclosure of transition plans that can be used by central banks and financial supervisors to assess the transition risk profile of financial institutions and companies.
04. **Address greenwashing risk by financial institutions:** Financial regulators must confront the growing greenwashing risk within the financial sector. This involves addressing the risk of financial institutions to inaccurately self-certify their financial products as sustainable. To mitigate this risk, standardization is crucial, particularly in defining what should be disclosed regarding the sustainability characteristics (i.e. environmental and social impact measurements) of the financial products. On a bigger picture, there should also be a requirement for financial institutions to transparently disclose the percentage of their portfolio that are classified, not just under the sustainable, but also the unsustainable, taxonomies, enabling the public to gauge how much financial capital the financial institutions are directing towards green and harmful activities.
05. **Set supervisory expectations to assess and integrate nature related financial risks and opportunities:** Given the importance of nature in helping slow global warming and the minimal attention that has been given to nature compared to climate related risks, financial supervisors should start setting expectations for financial institutions to (a) identify and map impact and dependencies on nature; (b) assess risk including having a robust client due diligence; (c) set metrics to monitor nature related risks; (d) develop strategies to finance sustainable practices including nature-based solutions; (e) provide transparent reporting on nature-related risks and mitigation efforts based on internationally recognised frameworks such as the Taskforce on Nature-related Financial Disclosures (TNFD); (f) Develop internal governance systems that consider nature; and (g) tap into nature opportunities through product offerings. Financial supervisors should also consider issuing sector or thematic specific guidance for high-risk sectors as well as supporting the development of nature scenarios.



06.

Improve the robustness of climate scenario analysis and stress testing modelling to accurately portray the actual impact of climate risks and translate these into capital requirement as well as other supervisory requirements:

Numerous climate-scenario models used in the financial services sector are found to be substantially underestimating climate risk^[1]. This has the potential to lead financial institutions and policymakers into a false sense of security, assuming that these models offer a comprehensive assessment of risk, without realizing that many of the most severe climate impacts have not been factored in. Consequently, it is imperative to enhance the development of climate risk models and scenarios to more accurately encompass risk drivers, uncertainties, and the full spectrum of climate risk impacts. Financial supervisors should subsequently translate the outcomes of these assessments into the framework of capital ratio, along with other supervisory requirements. This would enable financial institutions to have a more resilient capital and liquidity buffer over relevant time horizons that would shape their business model, exposure profile, business strategy and risk management.

07.

Design specific insurance supervision policies for insurance underwriting and investment activities:

In order to enhance their regulatory effectiveness, supervisors must take a more tailored approach when developing rules and guidance specific to the insurance industry. Currently, the existing guidelines appear to be rather generic and high-level, as many of those guidance are designed to be applicable for both banks and insurers. However, given the distinct nature of the insurance business, it is imperative that supervisors address the sector's unique requirements. To address this, supervisory expectations should be enforced for both sides of insurers' balance sheets. This can be achieved by setting expectations for insurance companies to: a) incorporate E&S considerations into their Own Risk Solvency Assessment (ORSA); b) actively engage and support insurance clients and investee companies in adhering to high E&S standards; c) factor E&S risks into insurance pricing and ensure insurance premium reflects the risk of monetary loss related to E&S risk; d) develop products that cater the needs for insuring business and increase resilience against climate and natural risks; e) Immediately exclude any insurance services for severely damaging economic activities; and f) phase out fossil fuel-related investments, aligning with the International Energy Agency's Net Zero Emissions by 2050 Scenario.

[1] The Emperor's New Climate Scenarios: Limitations and assumptions of commonly used climate-change scenarios in financial services

INTEGRATE E&S CONSIDERATIONS INTO MONETARY POLICIES & CENTRAL BANKING ACTIVITIES

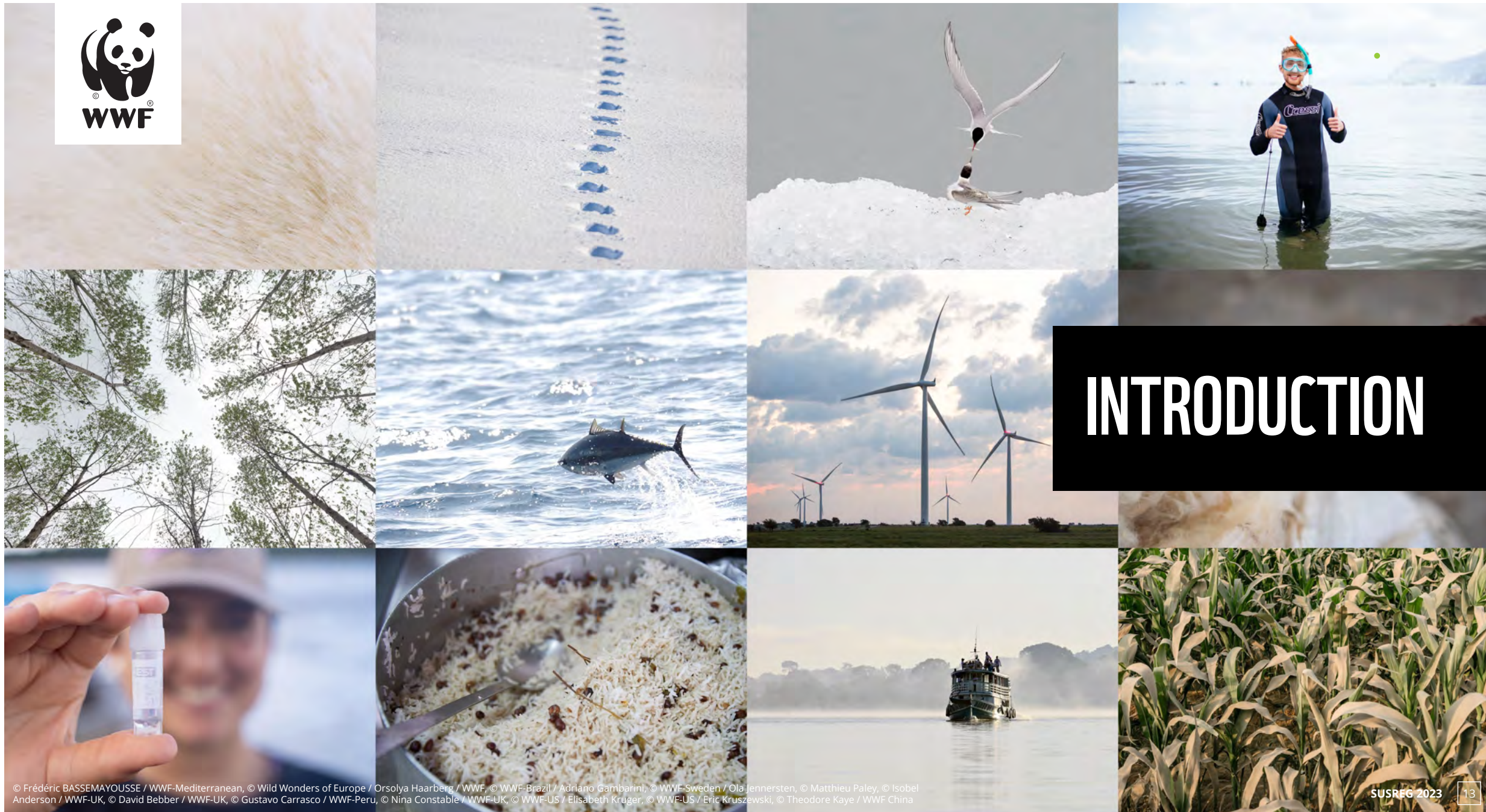
01. **Integrate environmental and social consideration into all monetary policy tools:** Central banks need to make full use of their monetary policy toolkit, both to reflect the risks derived from environmental and social issues as well as to ensure that their actions promote the transition to a low-carbon and nature positive economy. This includes the integration of environmental and social considerations into central banks' corporate asset purchase programs, collateral framework, foreign exchange reserve management, green subsidized targeted lending, and adjustment of reserve requirement.
02. **Step up the phase-out of the most harmful sectors from central banks' portfolios and regularly assess the impact of portfolio on climate and nature:** As forceful stewards co-responsible for addressing biodiversity and climate crises, central banks should pledge to align their monetary and non-monetary portfolios with a climate warming trajectory of 1.5 degree Celsius. This can start with disclosure of their portfolio climate impact on a double materiality basis and subsequently having fossil fuel exclusions policy with an "as urgently as possible" target exit year. In addition, central banks should aim to ensure their portfolio is "deforestation and conversion free" (DCF) and minimize negative impacts to biodiversity and nature as much as possible, this can be done through screening the portfolio with robust DCF criteria and disclose the biodiversity impact of their portfolio.



GOVERNMENT AND OTHER RELEVANT STAKEHOLDERS SHOULD CREATE A CONDUCIVE ENVIRONMENT FOR THE TRANSITION TO HAPPEN

- | | | |
|---|---|---|
| <p>01. Implement and mandate disclosure of sustainable and unsustainable taxonomies which allows the classification of economic activities as sustainable/ unsustainable based on science- based criteria & threshold of the impacts on climate, biodiversity, marine and freshwater ecosystems, pollution, and circular economy. The focus of many taxonomies is primarily on classifying what is considered "green," often neglecting the categorization of "red" or unsustainable practices. This creates ample room for green marketing, even as unsustainable economic activities continue unabated. Therefore, the inclusion of an unsustainable taxonomy and corresponding disclosure requirements is equally crucial. Such an approach enables comprehensive assessments of the extent to which financial flows are still contributing to the degradation of our planet.</p> | <p>03. Set specific targets and incentives to increase support towards green sectors and divert capital away from harmful sectors without clear transition plans. Incentives for financing green sector include tax incentives that reduce the cost of capital for green projects, low-interest financing or guarantees for green investment, and grants and subsidies for research and development in green industries (particularly for emerging technologies with high upfront costs). Disincentives for financing harmful sectors include carbon taxes, stricter regulations and compliance requirements, and adopting polluter pays principle. Moreover, setting clear targets and maintaining consistent regulations over the long term allows companies to invest in the transition with confidence, as they can expect regulations will remain stable in the future.</p> | <p>05. Establish open-source climate, nature, and social data repositories by bringing together relevant stakeholders including ministries, government agencies, and other relevant parties. This unified effort aims to provide all stakeholders with access to crucial data essential for their transitions. The repository would encompass data concerning (but not limited to): a) drivers of physical and transition risks: including projected future hazards, extreme weather events (such as floods, droughts, temperature), anticipated carbon prices, etc.; b) ecosystem services/dependencies, risk and opportunities and state-of-nature; and c) corporate and commitments encompassing company targets, asset and supply chain information, historical and projected emissions, projected production levels, business operation locations, etc.</p> |
| <p>02. Scale up and gradually increase carbon pricing in the country. Carbon pricing is a vital component of climate mitigation strategies which allows a price tag on emissions from consumption and production. Despite the increasing adoption of carbon pricing by numerous countries, the current prices often fall short of representing the full externalities costs of carbon. To make the climate goals attainable, the World Bank recommends the prices to reach USD 61 to USD 122 by 2030 per ton of CO₂^[1]. Thus, we strongly encourage more countries to adopt carbon pricing mechanisms through carbon taxes or emissions trading schemes, and gradually raise carbon prices through a phased approach.</p> | <p>04. Put in place Public-Private Partnerships mechanism to narrow the protection gap and ensure continued provision of insurance covering E&S risks. This measure is crucial to increase insurance accessibility particularly for vulnerable populations who may face rising premiums and reduced coverage due to climate change and biodiversity collapse.</p> | <p>06. Strengthen government's policy and initiatives on "just transition" that considers the impacts of the transition to a net zero and nature positive economy, and provide the necessary support, to the most vulnerable and affected part of groups i.e labour, social groups and local communities affected directly / indirectly by the transition. This can be achieved through various means, such as facilitating social dialogues among all affected parties, bridging skill gaps to minimize employment disruptions during the shift from non-green to green jobs, integrating just transition policies into climate policy, and establishing a just transition fund, among other approaches.</p> |

[1] [State and Trends of Carbon Pricing 2023, The World Bank](#)

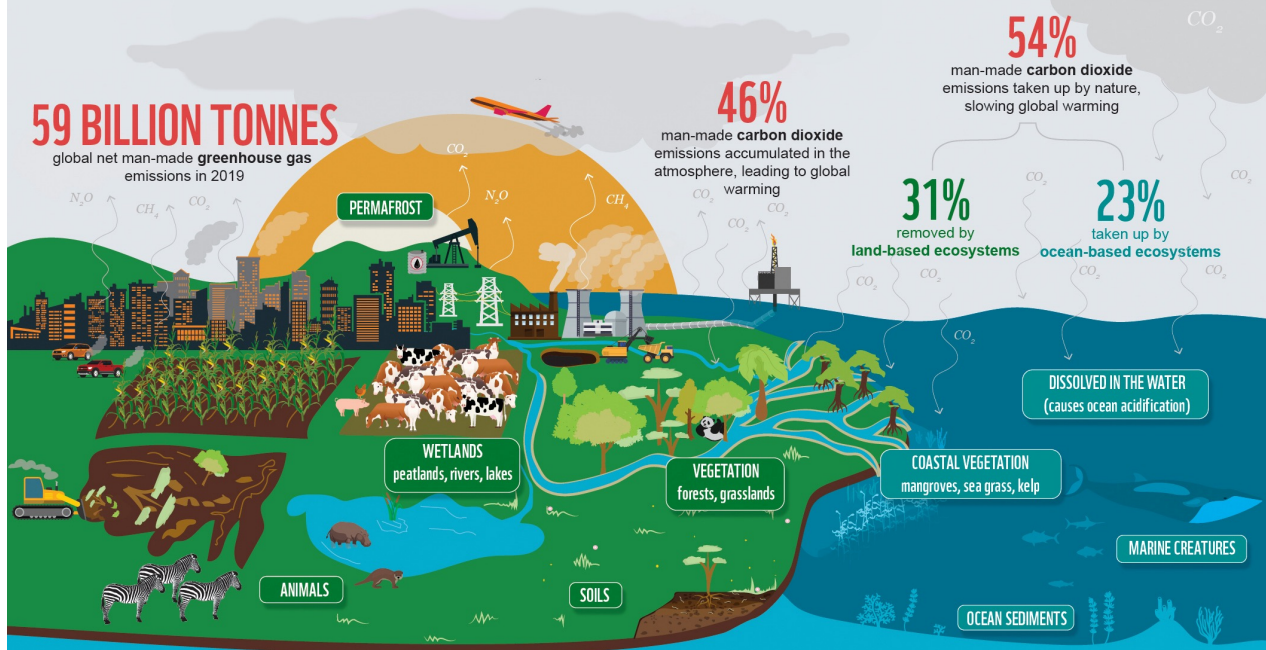


INTRODUCTION

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“HUMAN ACTIVITY AFFECTS THE EARTH’S CLIMATE AND ECOSYSTEMS MORE THAN EVER WHICH RISKS THE STABILITY OF THE ENTIRE PLANET. FOR THE FIRST TIME EVER ALL NINE PLANETARY BOUNDARIES HAVE BEEN ASSESSED. SIX OF THE BOUNDARIES ARE NOW TRANSGRESSED”

STOCKHOLM RESILIENCE CENTRE



Source: [Uncovering the story of nature in the IPCC Sixth Assessment Report by WWF International](#)

SURVIVING PLANETARY BOUNDARIES

Surviving within our planetary boundaries^[1] necessitates a whole earth and society approach. While there are promising developments in the green financial regulatory space, ambitious action (“walking the talk”) from central banks, supervisors and regulators to align activities with the global biodiversity deal 2030 and net-zero target 2050 is still a work-in-progress. On a positive note, and as a preamble to the findings and recommendations from the SUSREG annual report, we wish to reiterate notable initiatives in the recent months that will pave the way for greater synergy, collaboration and transformation of financial regulations and the financial sector in the coming years.

RECENT DEVELOPMENTS

This year, 27 of the world’s largest nature conservation organizations, institutes, business and finance coalitions have come together to launch a new initiative called “Nature Positive Initiative” aimed at driving alignment around the definition, integrity and use of the term ‘nature positive’ and supporting broader, longer-term efforts to deliver nature-positive outcomes. Policymakers are urged to adopt the recommendations of the UN Secretary General’s High Level Expert Group’s Integrity Matters report to promote state-of-the-art practices for credible net-zero commitments from financial institutions.

INTERTWINED CRISIS: CLIMATE AND NATURE

Adopting an integrated approach, the NGFS’ technical document on “Nature-related Financial Risks: a Conceptual Framework to guide Action by Central Banks and Supervisors” in September 2023 propounds that climate-related financial risks are strongly interconnected with the broader environmental-related financial risks, and therefore considered within the scope of nature-related financial risks.

To construct a compelling argument for this, a recent WWF report titled “Uncovering the Narrative of Nature in the IPCC Sixth Assessment Report” highlights nature’s historical significance as a potent ally in the fight against climate change. Land and marine ecosystems, operating behind the scenes, assume vital roles in climate regulation. Collectively, these ecosystems presently absorb more than half of all annual human-generated carbon emissions.

[1] For the first time, an international team of scientists is able to provide a detailed outline of planetary resilience by mapping out all nine boundary processes that define a safe operating space for humanity. See more here <https://www.stockholmresilience.org/research/research-news/2023-09-13-all-planetary-boundaries-mapped-out-for-the-first-time-six-of-nine-crossed.html>

"PEOPLE AND NATURE MUST BE ALLIES FOR A 1.5°C PATHWAY"

NATURE HAS HELPED SLOW GLOBAL WARMING

Nature is our climate's secret ally. For decades, ecosystems have absorbed more than half of the carbon dioxide mankind pumped into the atmosphere due to natural sinks growing along with emissions. Safeguarding and restoring nature leads to greater, and more secure, carbon stores.

Nature can continue to help us but only if we help it first. The restoration of biodiversity and ecosystems play a pivotal role in climate-resilient development, promoting ecological well-being and human prosperity. Therefore, it is only logical to approach climate and nature as interconnected crises that require joint attention and action.

NGFS'S TASKFORCE ON BIODIVERSITY LOSS AND NATURE-RELATED RISKS

Recognizing the urgency to better understand the consequences of biodiversity loss and ecosystem degradation, the NGFS's taskforce on biodiversity loss and nature-related risks has established a dedicated team focused on nature-related scenarios. Recently, WWF and its partners unveiled the recipients of a research grant initiative launched earlier this year, specifically aimed at conducting studies on Biodiversity and Ecosystem Services Modelling Scenarios, with comprehensive findings slated for publication by the end of 2025.

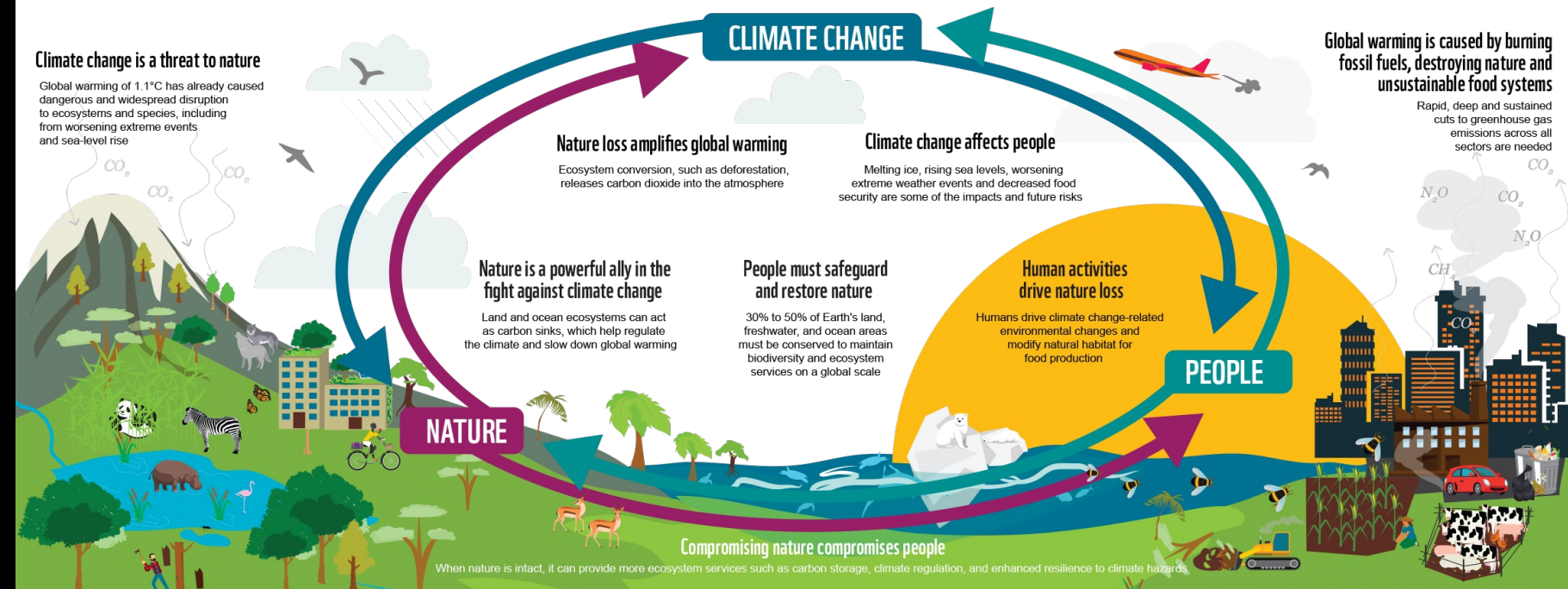
TASKFORCE ON NATURE-RELATED FINANCIAL DISCLOSURES (TNFD)

In parallel, the Taskforce on Nature-related Financial Disclosures (TNFD) has released its final recommendations in September 2023 for the management and disclosure of nature-related risks. These recommendations align with the requirements of Target 15 within the Global Biodiversity Framework, which calls for the assessment and disclosure of nature-related risks, dependencies, and impacts in corporate reporting. This development empowers companies to align their reporting practices with global policy objectives, akin to what they have been doing regarding climate-related matters.

SUSREG 2023 ANNUAL REPORT

As we reflect on these developments, the SUSREG 2023 Annual Report offers insights into how financial regulators, supervisors and central banks integrate climate, broader environmental, and social considerations into their mandate and operations. The report contains the following parts:

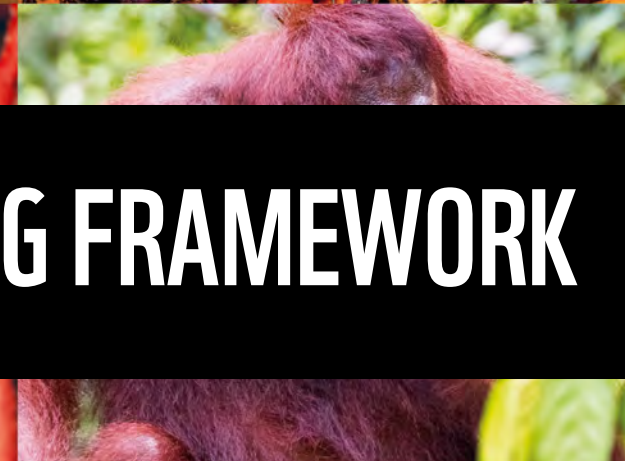
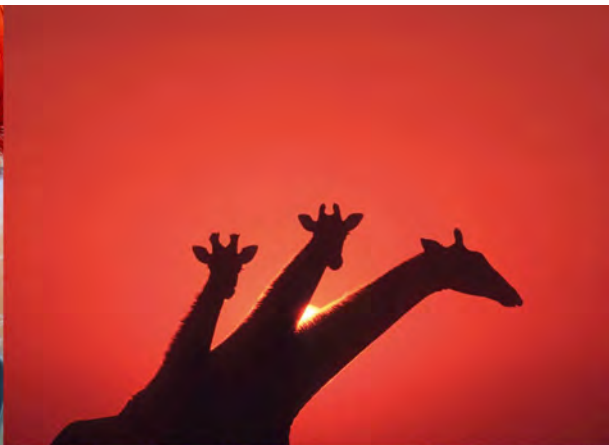
- **Chapter 1:** Recommendations
- **Chapter 2:** Introduction
- **Chapter 3:** SUSREG framework methodology
- **Chapter 4-6:** Findings on banking supervision, central banking, and insurance supervision respectively
- **Chapter 7:** Emerging issues which includes climate transition plan, nature related risks, social risks, and just transition



Source: [Uncovering the story of nature in the IPCC Sixth Assessment Report](#) by WWF International



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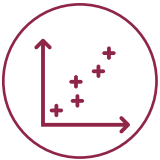


THE SUSREG FRAMEWORK



WWF'S GREENING FINANCIAL REGULATION INITIATIVE (GFRI)

WWF engages with central banks, financial supervisors, insurance regulators to fully integrate climate, environmental and social risks into their mandates and operations.



SUSREG

Assessing and **tracking progress** in 47 countries worldwide
(first results published in October 2021, second round in December 2022)



RESEARCH

Various research papers and good practices on **climate change and biodiversity loss related financial policy and regulation**
(e.g. Nature's next stewards published in July 2021)



CAPACITY BUILDING

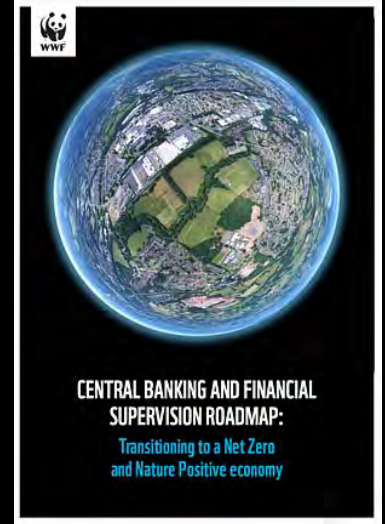
Targeted assistance to central banks and supervisors
(overview of tools, methodologies, integrate climate change and biodiversity loss related risks, workshops, trainings)



ADVOCACY

International advocacy on sustainable financial regulation

Visit the [GFRI Website](#) for more information



KEY OBJECTIVES OF SUSREG

The Sustainable Financial Regulations and Central Bank Activities (SUSREG) framework and tracker aims to assess the integration of E&S considerations in financial regulations, supervisory expectations, and monetary policy.

It also aims to provide practical guidance to central banks, financial regulators and supervisors, contributing to the transition to a net-zero, nature-positive, resilient and sustainable economy. The framework covers a wider range of sustainable finance topics pertaining to the banking and insurance industry.



RESILIENCE

Enhance the financial sector's **stability and resilience** to growing climate and environmental risks, harness financial flows for the transition to a low-carbon and sustainable future



ROADMAP

Act as a **roadmap** for central banks and financial supervisors for banking and insurance regulations



TRANSPARENCY

Provide a **transparent and independent assessment of progress** by central banks and financial supervisors of insurance and banking, reflect good practices and benchmarking

THE SUSREG FRAMEWORK AND THE ASSESSMENT RESULTS CAN BE USED BY



CENTRAL BANKS, FINANCIAL REGULATORS AND SUPERVISORS

- To strengthen regulatory and supervisory practices by integrating E&S considerations into financial regulations (for banking and insurance), guidelines, and monetary policy operations;
- To benchmark themselves against peers in key markets worldwide and align with best practices.



INTERNATIONAL FINANCIAL STANDARD-SETTERS AND INITIATIVES

- To benefit from independent, regularly updated assessments and annual reporting on progress;
- To build on the framework to establish roadmaps for integrating E&S considerations into global financial regulations and central bank activities;
- To benefit from the science-based perspective of WWF on best practices regarding the integration of climate related and E&S risks.



COMMERCIAL BANKS AND INSURANCE COMPANIES

- To understand the differences in the regulatory and monetary policy frameworks between the countries in which they operate (and those affecting the financial institutions in their portfolios);
- To formulate their ESG strategy by taking into consideration other countries' best practices in banking and insurance regulations;
- To support and inform their engagement with government entities and policymakers.



ACADEMICS, THINK-TANKS AND OTHER NON-GOVERNMENTAL ORGANIZATIONS

- To better understand the differences in the financial regulations in key countries worldwide;
- To assess the degree of integration of various E&S issues in financial regulation and central bank activities, and track progress.

THE THREE KEY PILLARS OF SUSREG ASSESSMENT



BANKING AND INSURANCE SUPERVISION

This section assesses the maturity of supervisory expectation in using various tools and measures to ensure both the safety and soundness of individual banks, (re)insurance companies and the financial system stability, with regards to climate, environmental, and social risks. It also includes measures that regulators and supervisors themselves can take to show leadership and better understand these risks and their implications for the financial sector.



CENTRAL BANKING

This section assesses various measures that central banks can take to address climate, environmental, and social risks, in keeping with their key mandates of ensuring money supply and price stability. It also includes measures that central banks can take to show leadership and better understand these risks and their implications.



ENABLING ENVIRONMENT

This section assesses the maturity of the environment required that would be key for the financial sector to fully support the transition to a low-carbon, resilient and sustainable economy. Some of these measures may be outside the remit of central banks or financial supervisors.



SUSREG TRACKER FRAMEWORK

THE FRAMEWORK BUILDS ON:

- WWF's own sustainable finance experience and science-based perspective
- Good practices and developing trends in the regulatory landscape
- Consultation phase (2021-2022) with central banks and financial supervisors



BANKING AND INSURANCE SUPERVISION

KEY ROLES & MANDATES	 SAFETY & SOUNDNESS OF BANKS AND INSURERS				 FINANCIAL SYSTEM STABILITY	 OWN PRACTICES & ADVOCACY
	 MICRO-PRUDENTIAL SUPERVISION (SUPERVISORY EXPECTATIONS)				 MACRO-PRUDENTIAL SUPERVISION	 LEADERSHIP & INTERNAL ORGANIZATION
SUB-SECTIONS OF THE FRAMEWORK	SCOPE & IMPLEMENTATION	STRATEGY & GOVERNANCE	POLICIES & PROCESSES	PORTFOLIO RISK & IMPACT	 MICRO-PRUDENTIAL SUPERVISION (RULE-BASED)	 DISCLOSURE & TRANSPARENCY



CENTRAL BANKING

KEY ROLES & MANDATES	 MONEY SUPPLY & PRICE STRATEGY	 OWN PRACTICES & ADVOCACY	 MEASURES TYPICALLY OUTSIDE THE REMIT OF CENTRAL BANKS AND SUPERVISORS
SUB-SECTIONS OF THE FRAMEWORK	 MONETARY POLICY (CONVENTIONAL & UNCONVENTIONAL)	 LEADERSHIP & INTERNAL ORGANIZATION	 E.G., TAXONOMY, CORPORATE DISCLOSURE, CARBON PRICING, NATIONAL LEVEL STRATEGY



ENABLING ENVIRONMENT

INDICATORS



BANKING SUPERVISION

BANK PRACTICES						SUPERVISOR PRACTICES	
1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
SCOPE & IMPLEMENTATION	STRATEGY & GOVERNANCE	POLICIES & PROCESSES	PORTFOLIO RISK & IMPACT	MICRO-PRUDENTIAL	DISCLOSURE & TRANSPARENCY	MACRO-PRUDENTIAL	LEADERSHIP & INTERNAL ORGANISATION
Regulations or supervisory expectations	Business & risk strategy	Sector policies	Manage portfolio E&S risk	ICAAP	E&S in business policies & processes	Supervisor's stress testing	NGFS membership for supervisors
E&S scope	Risk appetite	Standards & certification	Scenario analysis & stress testing	Capital ratio	Time-bound transition plan	Stress testing method	Supervisor's transition plan
Double materiality assessment	Long-term consideration	Client support on international standard	Management of negative E&S impacts	Internal liquidity risk management	Internationally recognised reporting frameworks	Stress testing result	Internal organisation & resources (FS)
Beyond lending	Board communication	Supervisor risk checklists	Climate target setting	Liquidity ratios	Disclosure in annual report	Risk indicator monitoring	Study on banking's exposure
Supervisor monitoring	Remuneration policy	Policies & processes	Nature target setting		Sub-sectors credit disclosure	Exposure limit	Alignment to sustainability goals
Public consultation	Staff & resources	Nature-related risks	Manage reputation & litigation risk		Disclosure against taxonomy	Systemic risk buffer capital	Staff training
	Board appointments	Three lines of defence	Validate third parties' analysis		Portfolio exposure & mitigation		Study on transmission channels
	Board responsibilities	Non-compliance mitigation			Material negative E&S impact		Data quality initiatives
	Executive management	E&S credit clauses			External assurance		Just transition
	Core functions	Client engagement					
	Training	Data infrastructure					
	Stakeholder involvement	Water risk					
	Code of conducts and guidelines						

CENTRAL BANKING

CENTRAL BANK PRACTICES	
2.1	2.2
MONETARY POLICY	LEADERSHIP & INTERNAL ORGANISATION
Corporate asset purchase programs	NGFS membership
Collateral framework	Nominal anchors
Foreign exchange reserves	Central bank's transition plan
Subsidised & targeted loans	TCFD disclosure
Reserve requirements	Internal organisation & resources
	Portfolio exposure disclosure
	Asset management
	Taxonomy alignment
	Phase out plan
	Just Transition

ENABLING ENVIRONMENT

MARKET
3.1
OUTSIDE SUPERVISOR / CENTRAL BANK MANDATE
Multi-stakeholder initiative
Capacity building efforts
Sustainable taxonomy
Unsustainable taxonomy
Corporations sustainability reporting
Corporations transition plan
Carbon pricing
National-level sustainability strategy
Regulations on sustainable products
Transition targets & incentives
SME guideline
Sustainable sovereign bond

INDICATORS



INSURANCE SUPERVISION

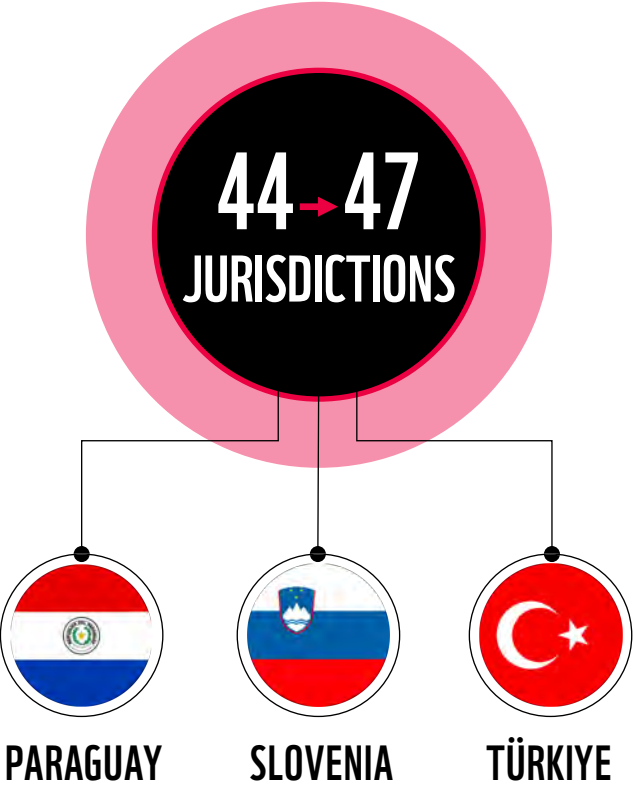
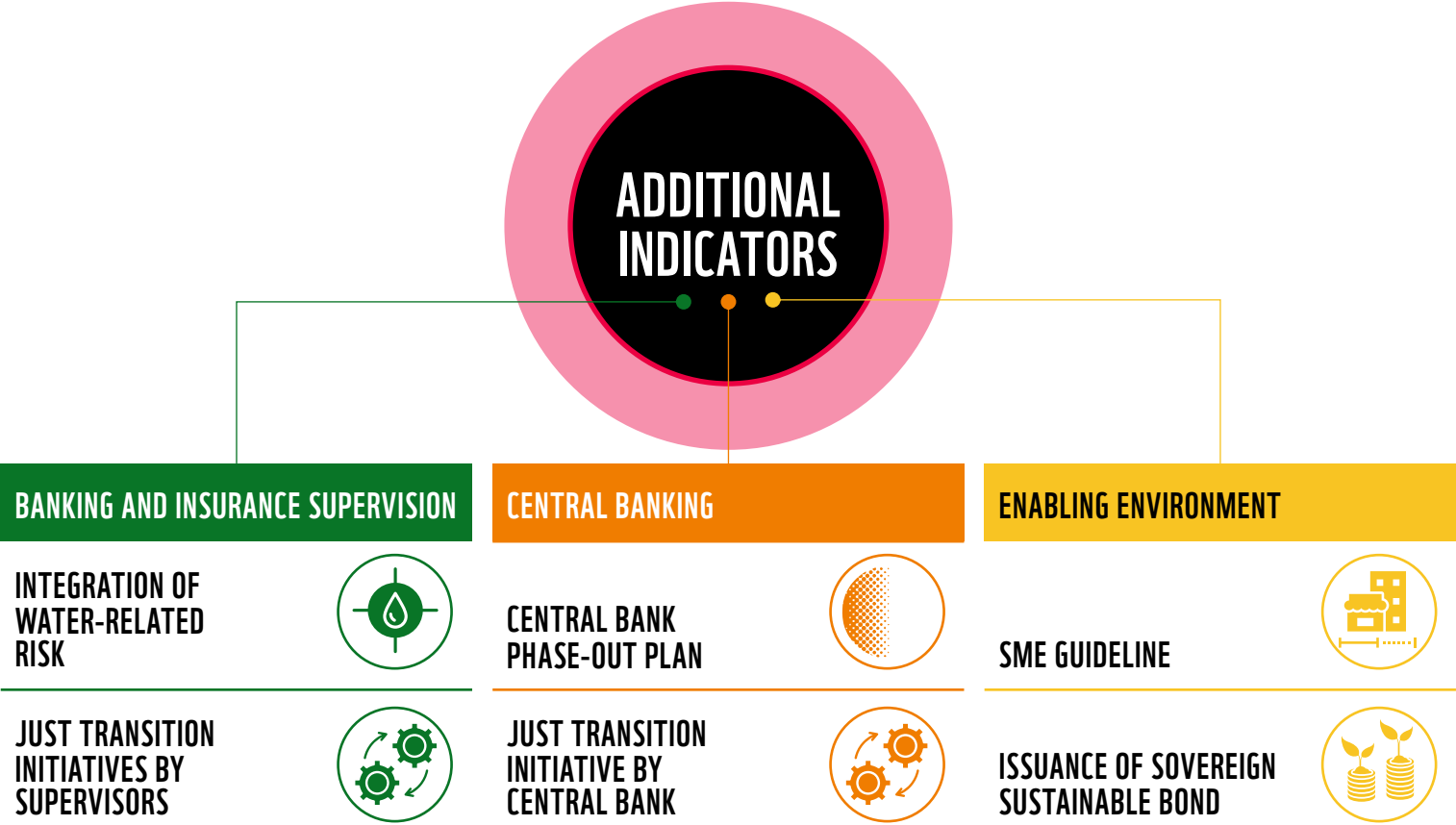
BANK PRACTICES						SUPERVISOR PRACTICES	
1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8
SCOPE & IMPLEMENTATION	STRATEGY & GOVERNANCE	POLICIES & PROCESSES	PORTFOLIO RISK & IMPACT	MICRO-PRUDENTIAL	DISCLOSURE & TRANSPARENCY	MACRO-PRUDENTIAL	LEADERSHIP & INTERNAL
Regulations or supervisory expectations	Business & risk strategy	Sector policies	Manage portfolio E&S risk	Enterprise Risk Management framework*	E&S in business policies & processes	Supervisor's stress testing	NGFS membership for supervisors
E&S scope	Risk appetite	Standards & certification	Scenario analysis & stress testing	Solvency capital requirements*	Time-bound transition plan	Stress testing method	Supervisor's transition plan
Double materiality assessment	Long-term consideration	Client support on international standard	Management of negative E&S impacts	Expectations of reinsurers*	Internationally recognised reporting frameworks	Stress testing result	Internal organisation & resources (FS)
Supervisor monitoring	Board communication	Supervisor risk checklists	Climate target setting	Product development*	Disclosure in annual report	Risk indicator monitoring	Study on insurer's exposure
Public consultation	Remuneration policy	Policies & processes	Nature target setting		Sub-sectors portfolio disclosure	Exposure limit	Alignment with sustainability goals
	Staff & resources	Nature-related risks	Risk concentration & ALM*		Disclosure against taxonomy	Mandatory insurance*	Staff training
	Board appointments	Three lines of defence	Natural catastrophe claims*		Portfolio exposure & mitigation	Integrated financial groups supervision*	Study on transmission channels
	Board responsibilities	Non-compliance mitigation	Manage reputation & litigation risk		Material negative E&S impact	Systemic risks buffer capital	Data quality initiatives
	Executive management responsibilities	Client engagement	Validate third parties' analysis		Greenwashing risks*		Engagement with reinsurers*
	Core functions	Data infrastructure	Risk concentration management*		External assurance		Just transition
	Training	Water risk	E&S risk in pricing*				
	Stakeholder involvement		Pricing incentives*				
	Code of conducts and guidelines						

ENABLING ENVIRONMENT

MARKET
3.1
OUTSIDE SUPERVISOR / CENTRAL BANK MANDATE
Multi-stakeholder initiative
Capacity building efforts
Sustainable taxonomy
Unsustainable taxonomy
Corporations sustainability reporting
Corporations transition plan
Carbon pricing
National-level sustainability strategy
Regulations on sustainable products
Transition targets & incentives
SME guideline
Sustainable sovereign bond
Public Private Partnership
Disaster Risk Reduction Facilities

* Insurance specific

WHAT'S NEW IN SUSREG 2023?



SUSREG FRAMEWORK

KEY ELEMENTS OF THE SUSREG TRACKER

Independence: The SUSREG tracker is an independent assessment rather than a member-driven assessment. Importantly, SUSREG does not rank countries/central banks/supervisors but focuses on providing a comparative analysis of relevant policies against the framework and against each other.

Maturity: Even though the SUSREG indicators are not weighted given the importance of each indicator for various phases of implementation by central banks and financial supervisors, the assessment enables the identification of areas where significant progress still needs to be made, while tracking changes over time.

Thematic scope: It covers climate, environmental, and social risks given the significance of the intertwined climate and nature crisis and its impact on humanity.

Indicators: The SUSREG tracker encompasses a broad spectrum of indicators relevant to greening the financial system including rule-based micro-prudential supervision, macro-prudential

supervision, central banking (monetary policy, portfolio management), the existence of strategy/internal organisation of the supervisor/central bank, and enablers such as science-based taxonomies, and the existence of a multi-stakeholder sustainable finance initiative.

Relevance: The framework also considers recent concepts and developments such as double materiality assessments, the integration of liquidity risk and capital adequacy, transition plans, and net zero roadmaps.

Transparency: Each indicator and assessment are documented with relevant policies, guidelines, frameworks, roadmaps, etc. (which will be reflected in the online tracker).

Standardisation: The evaluation considers if the country has “fully met”, “partially met” or “not met” an indicator (or N/A in certain cases) based on a detailed assessment guide.

Sector scope: The tracker now covers both banking and insurance sectors, which are key components of the financial system.

ASSESSMENT METHODOLOGY

In performing the assessments, WWF has considered the following sources (non-exhaustive list):

Financial regulators or supervisors:

Regulations, supervisory expectations, or guidelines.

Central banks: Measures and activities implemented by central banks (in particular those related to monetary policy), in line with their mandate.

Industry associations: Relevant guidelines issued by the national banking and insurance association or other industry-led bodies, where available.

Securities commissions or stock exchanges:

Relevant listing rules or sustainability reporting guidelines, in the absence of regulations or guidelines issued by the regulator, supervisors, or associations.

Others: Measures taken by central banks, banking and insurance regulators or supervisors, governments, and other policymakers, to create an enabling environment conducive to the development of sustainable finance.

Two layers of assessment were pursued: regulation enforceability level and coverage.

In the first stage, WWF assesses the enforceability to determine whether a certain expectation towards supervised entities is mandatory and enforced. The second stage assesses whether the scope of the source of information encompasses all supervised entities or only specific segments of supervised entities.

In the absence of regulations or guidelines issued by the financial regulator on sustainable banking and insurance, WWF considered relevant guidelines issued by either the securities commissions or stock exchanges, national banking/insurance associations, or other industry-led bodies, where available. Although regulations issued by the stock exchange or securities commissions and guidelines issued by the national banking association or other industry-led bodies are considered important drivers of change, in our view the issuance of stringent and mandatory regulations is the most conducive solution to the uniform integration of environmental and social considerations within the banking and insurance sector, and therefore should be actively pursued.

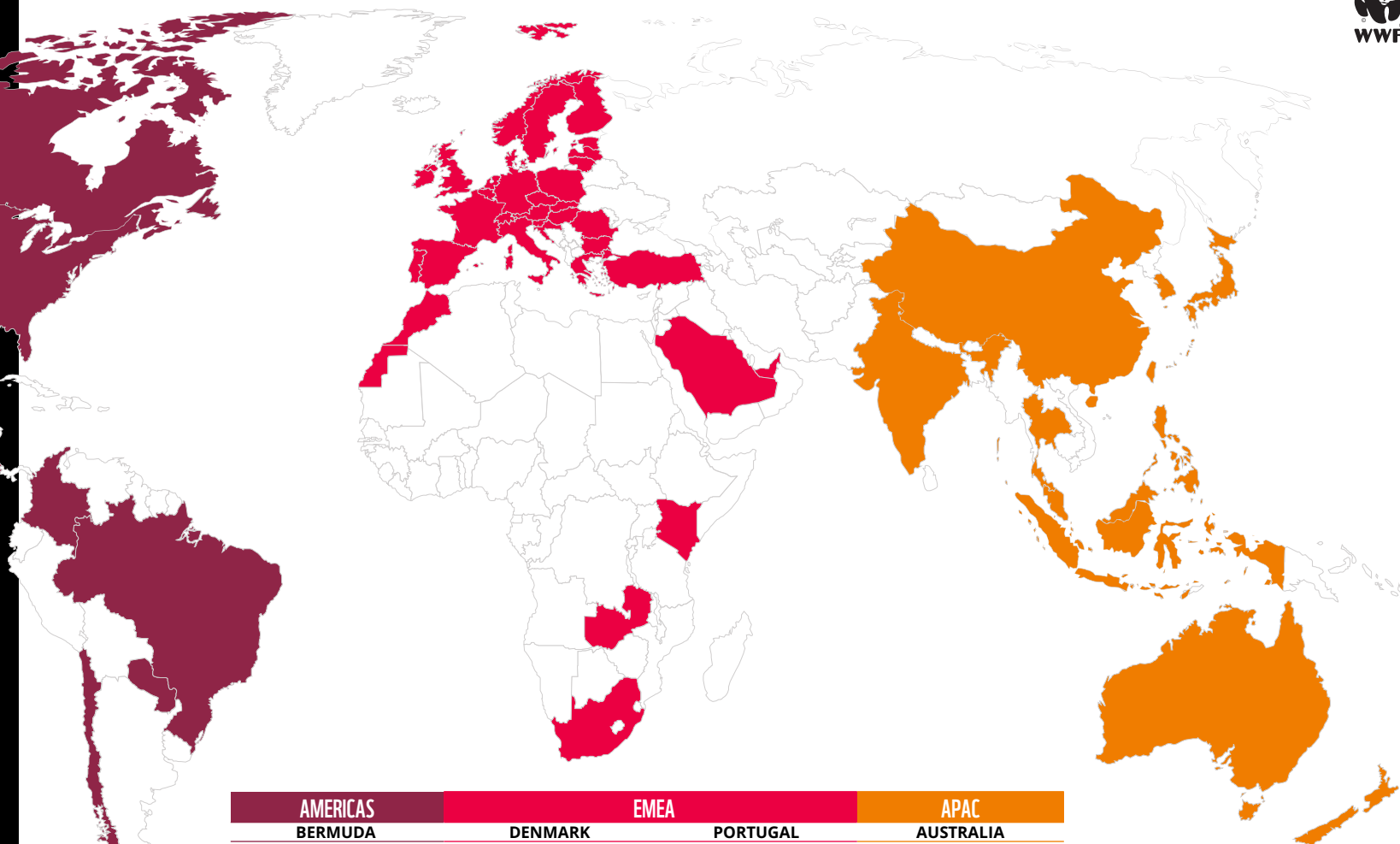
While certain supervisory expectations are only applicable to financial institutions of a certain size, SUSREG assessment does not differentiate this distinction and assesses the substance of the supervisory expectations regardless of their coverage in terms of size of financial institutions.

SUSREG GEOGRAPHICAL COVERAGE

The assessment has expanded from 38 jurisdictions in 2021 to 47 jurisdictions in 2023 across the Americas, EMEA (Europe, Middle East, and Africa), and APAC (Asia Pacific), representing over 88% of the global GDP and 72% of global GHG emissions, and 11 of the 17 most biodiversity-rich countries in the world.

Most of these are members and observers of the Basel Committee on Banking Supervision (BCBS), the International Association of Insurance Supervisors (IAIS), and the Network of Central Banks and Supervisors for Greening the Financial System (NGFS).

Please refer to Annex 1 for the detailed list of the central banks, banking/insurance regulators, and supervisors covered by this assessment.



AMERICAS	EMEA	APAC
BERMUDA	DENMARK	PORTUGAL
BRAZIL	EUROPEAN UNION	SAUDI ARABIA
CALIFORNIA (US STATE)	FRANCE	SOUTH AFRICA
CANADA	GERMANY	SPAIN
CHILE	GREECE	SLOVENIA
COLOMBIA	HUNGARY	SWEDEN
COSTA RICA	ITALY	SWITZERLAND
MEXICO	KENYA	TÜRKIYE
PARAGUAY	LUXEMBOURG	UAE
NEW YORK (US STATE)	MOROCCO	UK
USA	NETHERLANDS	ZAMBIA
	NORWAY	
		AUSTRALIA
		CHINA
		HONG KONG
		INDIA
		INDONESIA
		JAPAN
		MALAYSIA
		NEW ZEALAND
		PHILIPPINES
		SINGAPORE
		SOUTH KOREA
		TAIWAN
		THAILAND



Principle-based regulation may not always explicitly address all the areas covered by the detailed SUSREG indicators. To assess the fulfilment of the indicators, as well as the vagueness of the expectations, interpretation was necessary. In some instances, the mere discussion of issues without concrete actions and expectations by financial supervisors may not meet the full criteria of certain assessment indicators.

WWF has used its best efforts to share preliminary assessment results with the relevant institutions in each country. The resulting dialogue has often led to a better understanding of the institutions' practices and feedback has been incorporated where relevant. It should however be noted that feedback from an institution should not be construed as an official endorsement of the SUSREG methodology or results. While specific situations and differing interpretations were discussed during feedback sessions, it is important to note that the final judgement was made by WWF.

Although the results distinguish between the level of stringency of applicable regulations or guidelines, the extent to which such measures are adequately and effectively implemented is beyond the scope of the current exercise. Only publicly available information has been taken into account at the time of the assessment which was performed between July-September 2022.

When official documents were not available in English, unofficial translations were relied upon to facilitate comparison and accessibility. For more details on the assessment methodology, please refer to the 2021 'Introducing SUSREG' launch report^[1] and our 2022 SUSREG launch report for insurance^[2].

METHODOLOGICAL LIMITATIONS

Publicly available information: The SUSREG tracker only considers publicly available information, therefore it does not account for any internal and ongoing developments which may give a more accurate picture of where certain central banks and financial supervisors are standing.

No weighting of indicators: The indicators are not weighted, even though certain indicators might encapsulate an arguably more impactful action than others. The rationale behind this is that the SUSREG tracker is not a ranking but rather a benchmarking exercise of each central bank and financial supervisor's activities against each indicator. The purpose of the SUSREG tracker is to foster best practice sharing across jurisdictions over all the individual indicators and sections.

Existence, not effectiveness: Although the aim is effective mitigation by central banks and financial supervisors of present and future risks relating to climate change and nature loss, the SUSREG tracker focuses on the pursuit of certain practices and the existence of certain policies, therefore, it does not necessarily draw any conclusion on their effective impact.

Environmental focus: The scope of the SUSREG tracker, on most indicators, is equally split across «C» climate, «E» environment, and «S» social, as WWF welcomes holistic sustainable finance regulation that covers environmental and social aspects in conjunction. However, the most stringent focus has been put on the «E» and «C» across the indicators, in line with our expertise in the respective fields.

[1] [Introducing SUSREG: A framework for sustainable financial regulations and central bank activities](#)

[2] [SUSREG Tracker: Extension to insurance regulation and supervision](#)



ASSESSMENT OF THE EUROPEAN UNION (EU)

Given the specific conduct of banking and insurance supervision and monetary policy in the EU, the results of our assessment of individual European countries should be considered in parallel to the results of our assessment of the EU.

The Eurosystem comprises the ECB and the national central banks of the EU Member States whose currency is the euro. Under the Eurosystem, the ECB is in charge of defining the monetary policy while national central banks should implement it. Therefore, the assessment results for monetary policy measures in individual EU countries that have adopted the euro is marked as “N/A”, and it is necessary to refer to the assessment performed at the EU level. The only exception to this rule is the management of foreign exchange reserves, over which national central banks have full autonomy.

All the EU-level regulations in force will be applied to EU country-level assessments. In the case of the EU directives (e.g., Corporate Sustainability Reporting Directive) that have yet to take effect in the EU-regulated markets, we consider them as “partially met” at the country level. Similarly, we include proposed and draft EU regulations and directives at the country level, with a maximum score of “partially met”. In principle, we do not use guidelines such as those issued by EBA/ECB/EIOPA in the country-level assessment^[1], unless the financial supervisor specifically mentioned that it will be applying the guidelines as part of its supervision.



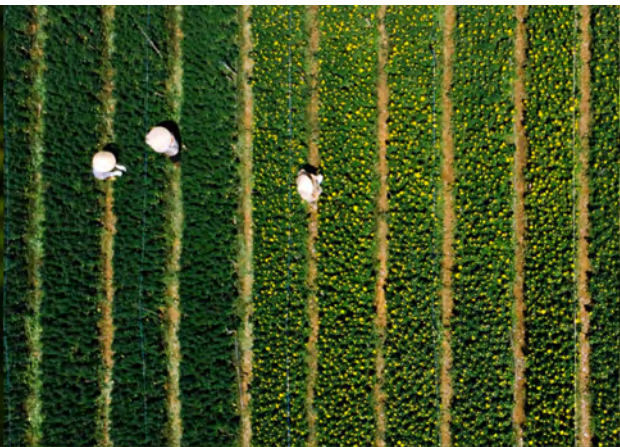
ASSESSMENT OF THE UNITED STATES OF AMERICA (USA)

This year we include two states (California and New York) in addition to the national (federal) assessment for the USA. State jurisdictions can have their own regulation and supervisory agencies (such as the New York Department of Financial Services or the California Department of Insurance), although they do not have fully-fledged central banks (in the semi-decentralised Federal Reserve Bank system, regional Federal Banks such as New York and San Francisco follow the federal monetary policy and act as delegated supervisors). Since federal regulation in the USA assessment applies to all its states, individual states such as California and New York may only have SUSREG assessments equal to or higher than the USA assessment (when local initiatives go further than national policy).

Please note that for insurance regulation and supervision, the situation in the USA is fragmented and relatively complex. In principle, the national insurance supervisor is the Treasury Department’s Federal Insurance Office (FIO). In practice though, the FIO plays a limited role, such as identifying any gaps in the state-based regulatory system. Actual insurance regulation and supervision are applied state-by-state, sometimes with wide discrepancies in the rules and practices observed between individual states. The NAIC (National Association of Insurance Commissioners) is an important national forum that can make recommendations and promulgate model regulations and laws on occasion, which then form the basis of many states’ supervisory rules and procedures. USA states can choose to adopt NAIC proposals, in some cases automatically.



[1] For example, the EBA Guidelines on loan origination and monitoring



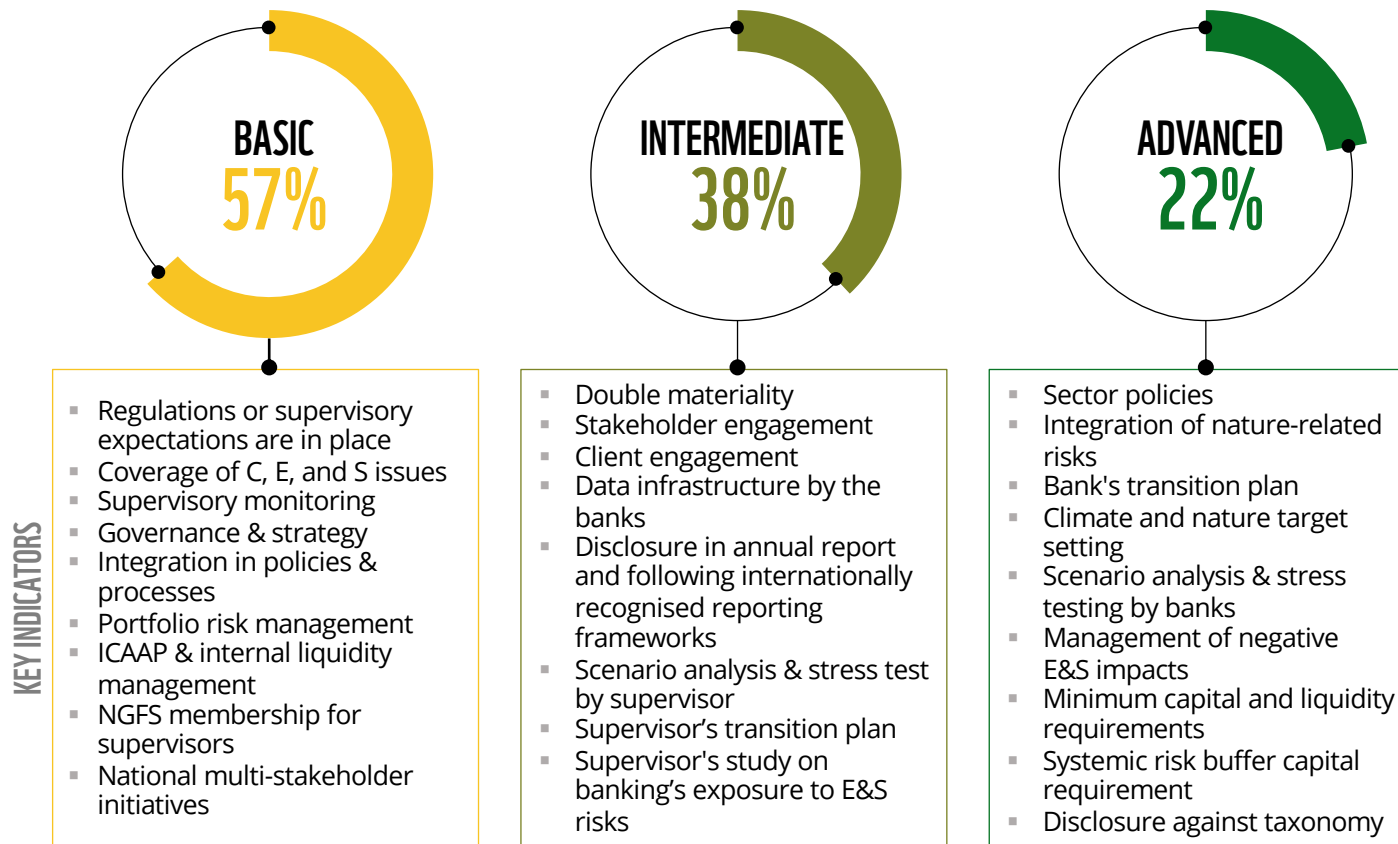
BANKING SUPERVISION





WHILE 57% OF THE BASIC INDICATORS ARE MET, SIGNIFICANT GAPS REMAIN WITH ONLY 22% OF THE ADVANCED INDICATORS FULFILLED

FIGURE 1: SUSREG BANKING SUPERVISION INDICATORS PROGRESS FOR CLIMATE & ENVIRONMENT ACROSS THREE DISTINCT CATEGORIES



Note: The number displayed on the graph represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment, the results were given equal weight. Partially met criteria allow for a 50%, while fully met criteria result in a 100% fulfillment.

- The SUSREG indicators are split into three groups, depending on their perceived level of complexity: basic, intermediate, and advanced. The categorisation refers to the indicator level and not country level.
- It is worth noting that on average, 57% of the basic indicators have been achieved by the countries assessed. This indicates that, on average, more than half of the basic indicators such as inclusion of climate and environmental risk into strategies, governance structures, policies, processes, and portfolio management are in place in the countries assessed.
- However, under intermediate indicators, we observe a lower level of achievement at 38%. This suggests that there is less emphasis on addressing issues such as double materiality, active client engagement, and scenario analysis by supervisors in certain countries.
- In terms of the advanced indicators, only 22% of the indicators have been fulfilled. Among these, the strongest performance is seen in expectations for scenario analysis and stress testing.



BANKING SUPERVISION ON CLIMATE-RELATED RISKS IS SIGNIFICANTLY STRONGER THAN THE OVERSIGHT OF BROADER ENVIRONMENTAL AND SOCIAL ISSUES

Banking supervision for climate risks fulfillment relatively well with more than 50% achievement against SUSREG criteria in 17 out of the 45 countries assessed. European countries, in particular, are ahead in this aspect.

Conversely, in six countries in Africa and Latin America, banking supervision on climate risks exhibits notably low levels of achievement, with less than 25% compliance with SUSREG criteria, whilst the USA only achieves 30%.

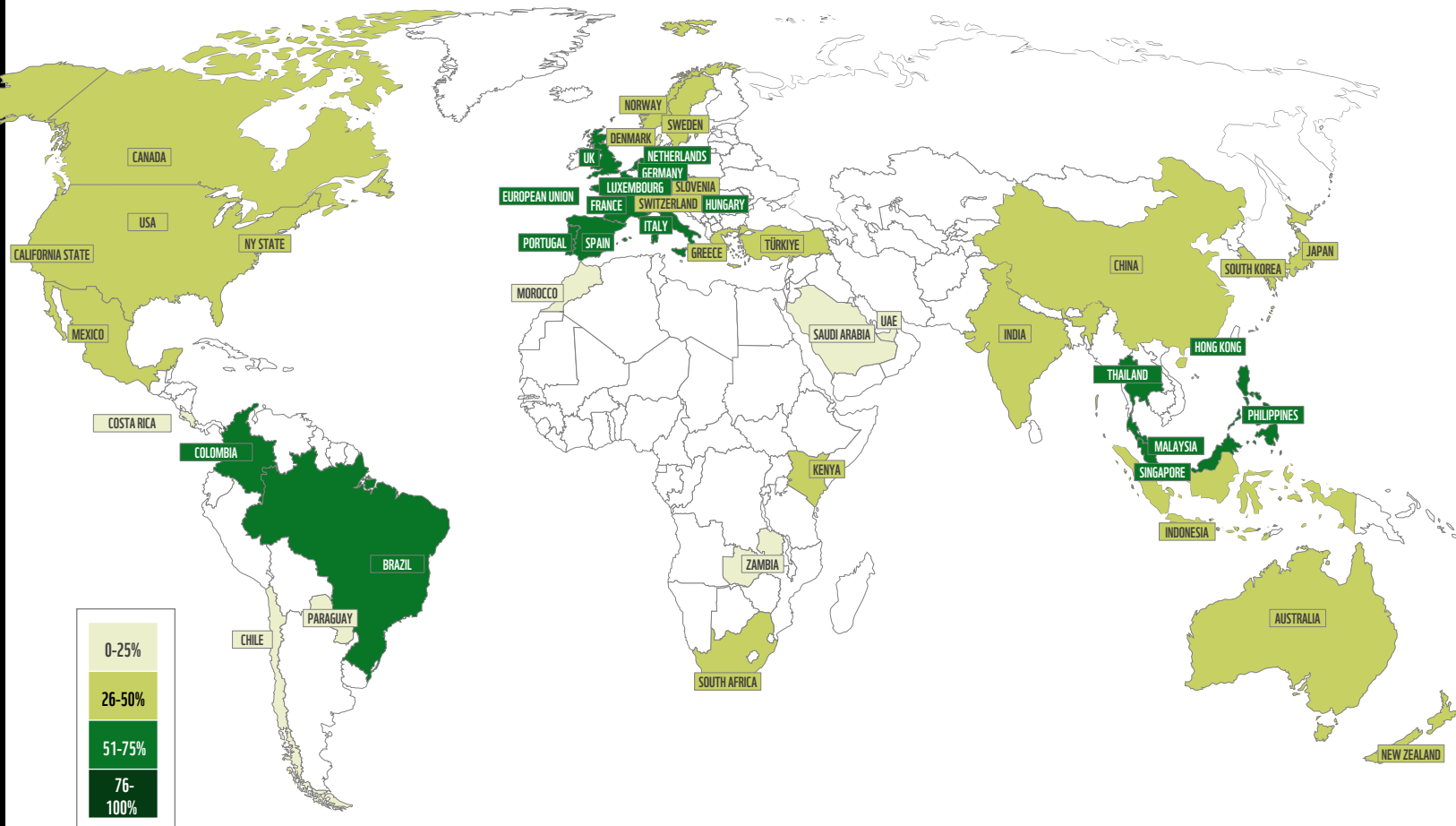
Note:

* The result shown throughout the report is derived from select indicators within the SUSREG assessment, with greater weight given to indicators that carry more significant impact. Banking supervision, supervisor's internal leadership, and enabling environment are given weightage of 77%, 10%, and 13% respectively. It's important to note that SUSREG is not intended to serve as a ranking tool for countries; rather, the result shown is designed solely to analyze the level of maturity in the countries assessed. We recognize that each country faces unique challenges and circumstances that cannot be fully captured by the result.

** For simplification purpose, we use the term 'countries' throughout; however, it also refers to jurisdictions such as California, New York, Hong Kong, Taiwan, and the European Union, all of which fall under the scope of SUSREG assessment



FIGURE 2: INTEGRATION OF CLIMATE-RELATED RISKS INTO BANKING SUPERVISION



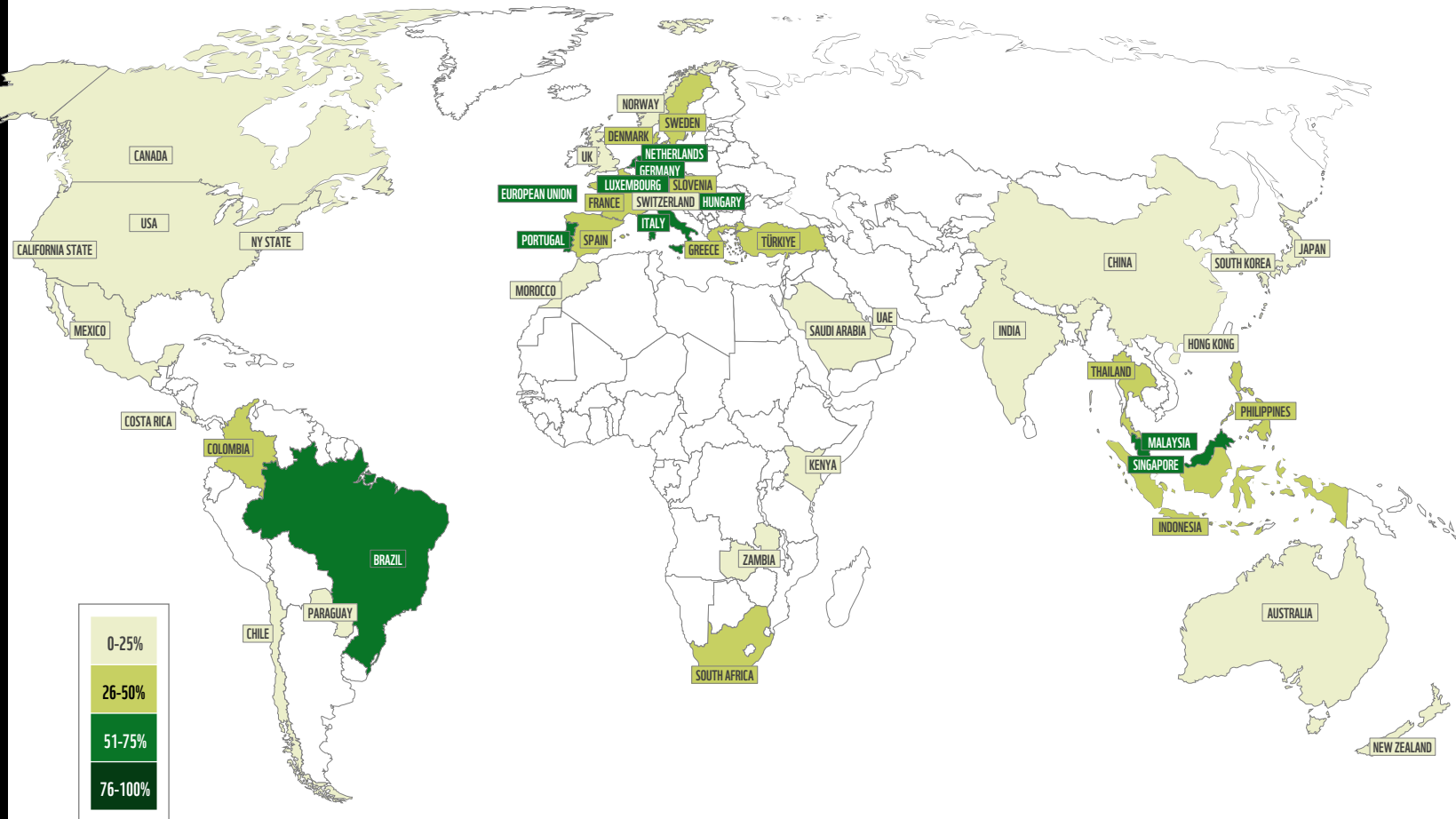
BANKING SUPERVISION ON BROADER ENVIRONMENTAL RISKS THAT MEETS MORE THAN 50% OF SUSREG CRITERIA IS OBSERVED IN ONLY 10 OUT OF 45 COUNTRIES

In the context of broader environmental risks, good banking supervision (with more than 50% achievement against SUSREG criteria) is found in only 10 out of 45 countries, with 7 of these countries located in Europe.

However, in 23 countries, banking supervision on broader environmental risks falls below the 25% mark. This suggests a large gap in banking supervision related to broader environmental issues such as biodiversity loss, habitat destruction, deforestation, water, air, and soil pollution, as well as the depletion of natural resources.



FIGURE 3: INTEGRATION OF BROADER ENVIRONMENTAL RISKS INTO BANKING SUPERVISION





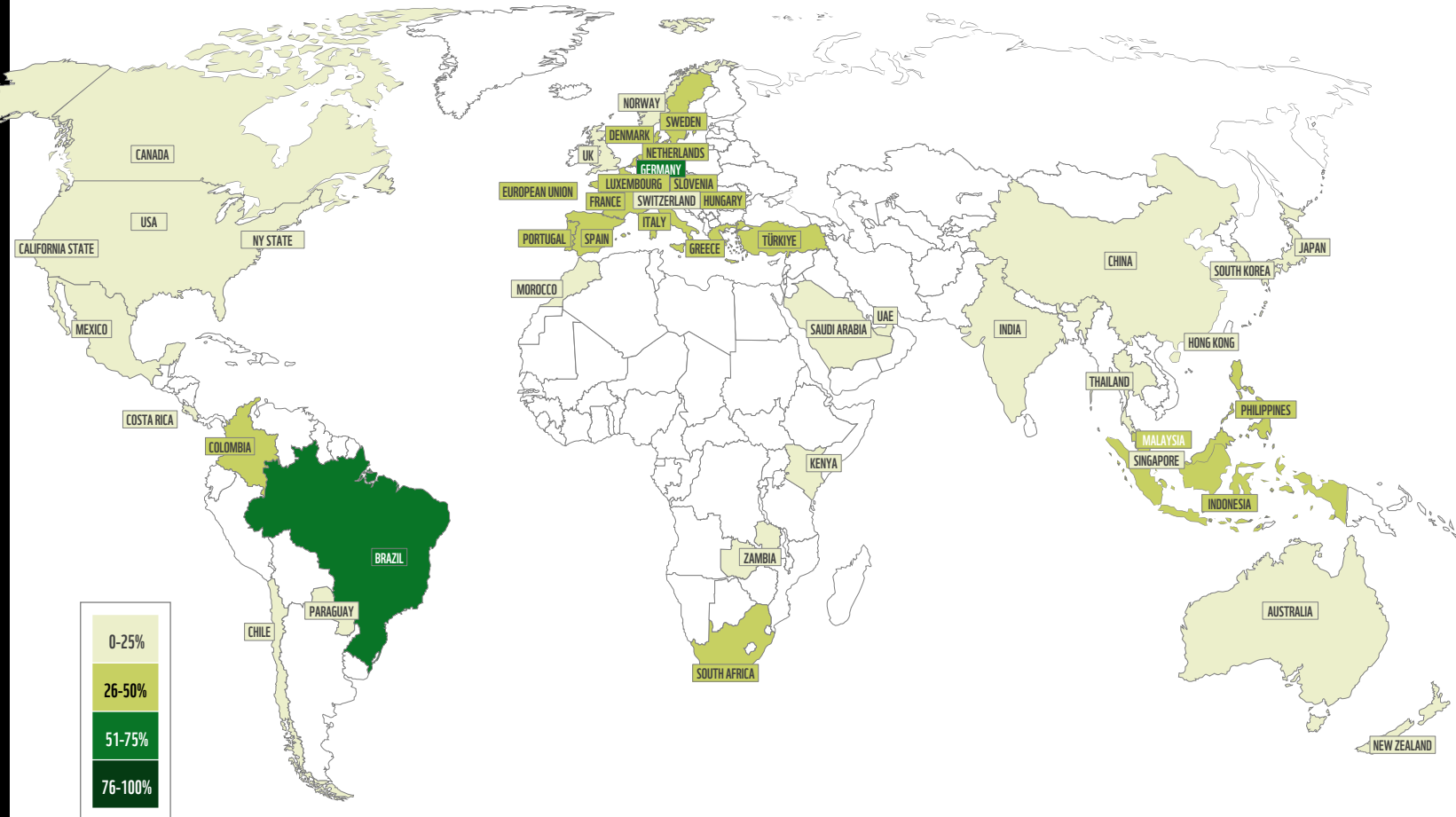
BANKING SUPERVISION ADDRESSING SOCIAL RISKS IS SIGNIFICANTLY LIMITED ACROSS COUNTRIES, WITH 25 COUNTRIES FULFILLING 25% OF SUSREG SOCIAL CRITERIA

Banking supervision addressing social risks, which include issues such as human rights violations, labor issues, and adverse impacts on local communities, is weak across countries. In 25 of the countries assessed, alignment with SUSREG social criteria falls below 25%.

A relatively higher standard of banking supervision, with more than 50% compliance with SUSREG criteria, is achieved by only two countries: Brazil and Germany.



FIGURE 4: INTEGRATION OF SOCIAL RISKS INTO BANKING SUPERVISION



THERE ARE SIGNIFICANT SHORTFALLS IN THE AREAS OF RULE-BASED MICROPRUDENTIAL AND MACROPRUDENTIAL SUPERVISION IN THE G20 COUNTRIES

FIGURE 5: INDICATORS FULFILMENT PER CATEGORY IN G20 COUNTRIES*

	MICROPRUDENTIAL (SUPERVISORY EXPECTATIONS)	MICRO-PRUDENTIAL SUPERVISION (RULE-BASED)	DISCLOSURE & TRANSPARENCY	MACRO-PRUDENTIAL SUPERVISION	LEADERSHIP & INTERNAL ORGANIZATION	ENABLING ENVIRONMENT
AUSTRALIA						
BRAZIL						
CANADA						
CHINA						
EU						
FRANCE						
GERMANY						
INDIA						
INDONESIA						
ITALY						
JAPAN						
SOUTH KOREA						
MEXICO						
SAUDI ARABIA						
SOUTH AFRICA						
TÜRKIYE						
UK						
USA						

Note: The number displayed in the table represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment and/or between investment and underwriting, the results were given equal weight. Partially met criteria allow for a 50%, while fully met criteria result in a 100% fulfillment.

* Argentina and Russia are not shown in the table as we do not cover these countries in our assessment

- When examining the fulfillment of indicators within various categories across G20 countries, banking supervision exhibits relative strength in areas such as micro-prudential supervisory expectations, internal leadership by supervisors, and the enabling environment, all of which show relatively high results.
- However, there is a significant shortfall in the areas of rule based micro-prudential supervision with the integration of Environmental and Social (E&S) risks into capital and liquidity ratios. This challenge arises, in part, due to difficulties in translating E&S risks into capital and liquidity ratios, stemming from disparities in the time horizon.
- Macro-prudential supervision demonstrates very low fulfillment. Several countries, including India, Indonesia, and Türkiye, have not fulfilled any SUSREG criteria in this category which encompasses items such as scenario analysis and stress tests by supervisors, monitoring of risk indicators, exposure limits, and systemic risk buffer capital requirements.

Bangko Sentral ng Pilipinas (BSP) in their Circular No 1128 requires material E&S risks are considered in the financial institutions' **Internal Capital Adequacy Assessment Process (ICAAP)** or **internal capital planning process**.





DESPITE BEING IN THE DEVELOPING WORLD, COUNTRIES LIKE MALAYSIA, BRAZIL, AND THAILAND SHOWS COMMENDABLE PROGRESS IN ACCELERATING SUSTAINABILITY WITHIN THEIR BANKING SUPERVISION

MALAYSIA



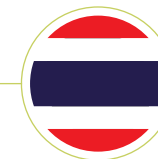
- Malaysia started greening its banking supervision with the publication of the Value Based Intermediation Assessment Framework (VBIAF) framework in 2019.
- The central bank (Bank Negara Malaysia) together with the industry initiatives like the Joint Committee on Climate Change (JC3) and the VBIAF industry working group have issued several guidance and expectations for the financial institutions.
- Key documents published during 2020-2023: 10 VBIAF guides for high-risk sectors, climate change principle-based taxonomy, climate risk management and scenario analysis guide, and the TCFD application guide.
- The central bank assessed the exposure of Malaysian banks to sectors and regions that are highly vulnerable to nature-related risks using the ENCORE framework.
- The central bank announced that financial institutions in Malaysia will run the industry-wide climate risk stress test exercise in 2024 and the aggregated results will be published by 2025.

BRAZIL



- Banco Central do Brasil (BCB) through the "New regulation on risk management and social, environmental and climate responsibility" issued in 2021, provides detailed banking supervisory expectations on sustainability issues.
- The regulation covers expectation to include C,E,S risks into key important aspects such as:
 - Management of credit risks: client's due diligence, assessment and monitoring of possible impacts on the credit quality, collateral and other credit risk mitigation instruments
 - Policies, strategies and procedures for mitigating operational, market, and liquidity risk
 - Portfolio management which also mentions scenario analysis and stress testing
 - Management of concentrations to economic sectors or to geographical regions more susceptible to suffer or cause damage
 - Integration into capital adequacy assessment and liquidity management.
- The BCB has also assessed the exposure of the national financial system (SFN) credit portfolio to the transition risk, extreme drought, and heavy rains risks which were published in its financial stability reports.

THAILAND



- The Working Group on Sustainable Finance (WG-SF), comprising the Fiscal Policy Office, Bank of Thailand (BOT), Securities and Exchange Commission, Office of Insurance Commission, and Stock Exchange of Thailand, joined forces to steer the direction of Thailand's sustainable finance policies.
- In 2021, the working group jointly published Sustainable Finance Initiatives for Thailand which set the direction and framework for driving sustainable finance across the financial sector
- In February 2023, BOT published a policy statement in Internalizing Environmental and Climate Change Aspects into Financial Institution Business. BOT requests financial institutions to apply the policy statement which encompasses key areas such as governance, strategy, risk management, and disclosure.
- Thailand taxonomy has also been developed since December 2022. The taxonomy provides a traffic light system defining what are green, amber, and red activities including the criteria and the thresholds. The first phase was focused on energy and transportation sectors. The second phase, a work in progress, will focus on manufacturing, agriculture, real estate and construction, and waste management.



THE SUSTAINABLE FINANCE TRANSITION JOURNEY OF BANKS IN THE PHILIPPINES

The Bangko Sentral ng Pilipinas (BSP) issued Circular No. 1085^[1] or the Sustainable Finance Framework in April 2020. This serves as the overarching framework governing the sustainability-related policies and practices of banks. The BSP deems that this may entail significant operational and strategic adjustments on the part of the bank, hence, the Framework provides a three-year transition period from May 2020 to implement the necessary measures. During the transitory interval, BSP instructs banks to prepare a board-approved transition plan starting six months from the issuance of the circular. Banks are required to detail their strategies and policies integrating sustainability principles into their corporate governance and risk management frameworks as well as their strategic objectives and operations.

The BSP, however, does not offer specific instructions or predetermined structure regarding the creation and delivery of transition plans^[2]. Instead, it will determine best practices by evaluating transition plans, which could contribute to improvements in sustainable finance regulations issued by the BSP. The evaluation of banks' compliance with the Sustainable Finance Framework will be guided by the commitments and timelines incorporated by banks in their respective transition plans. The BSP will consider analyses and guidance from external entities and international organizations as points of reference.

Despite the ongoing process, a greater emphasis is placed on the results of the review of transition plans submitted by banks to identify potential best practices. The current level of awareness and capability of banks in managing climate, environmental, and social risks is also taken into consideration. There were banks that incorporate their commitment to submit a three-year sustainability transition plan to BSP in their sustainability reports^[3].

BSP acknowledges that banks are at different levels of development when it comes to implementing the Sustainable Finance Framework. Some bigger banks are classified as advanced, as they have largely fulfilled the requirements stated in Circular No. 1085 and have also complied with global standards for sustainability and impact reporting. These banks are reported to have additionally issued green, social, or sustainability bonds. In the case of smaller banks, the BSP will intensify its capacity building activities and implementation measures in coordination with the appropriate industry associations^[4].

Around 95 percent of the 489 banks^[5] have already submitted their transition plans and/or Sustainable Finance Frameworks^[6]. The remaining banks, which are small banks are faced with various capacity, resources or financial constraints.



[1] Circular no. 1085, p.5

[2] *Stocktake on Financial Institutions' Transition Plans and their Relevance to Micro-prudential Authorities*, p.21

[3] Examples are Philippine National Bank, Bank of Commerce and BDO Unibank, p.36

[4] This is based on the policy implementation dialogue conducted among BSP supervisors.

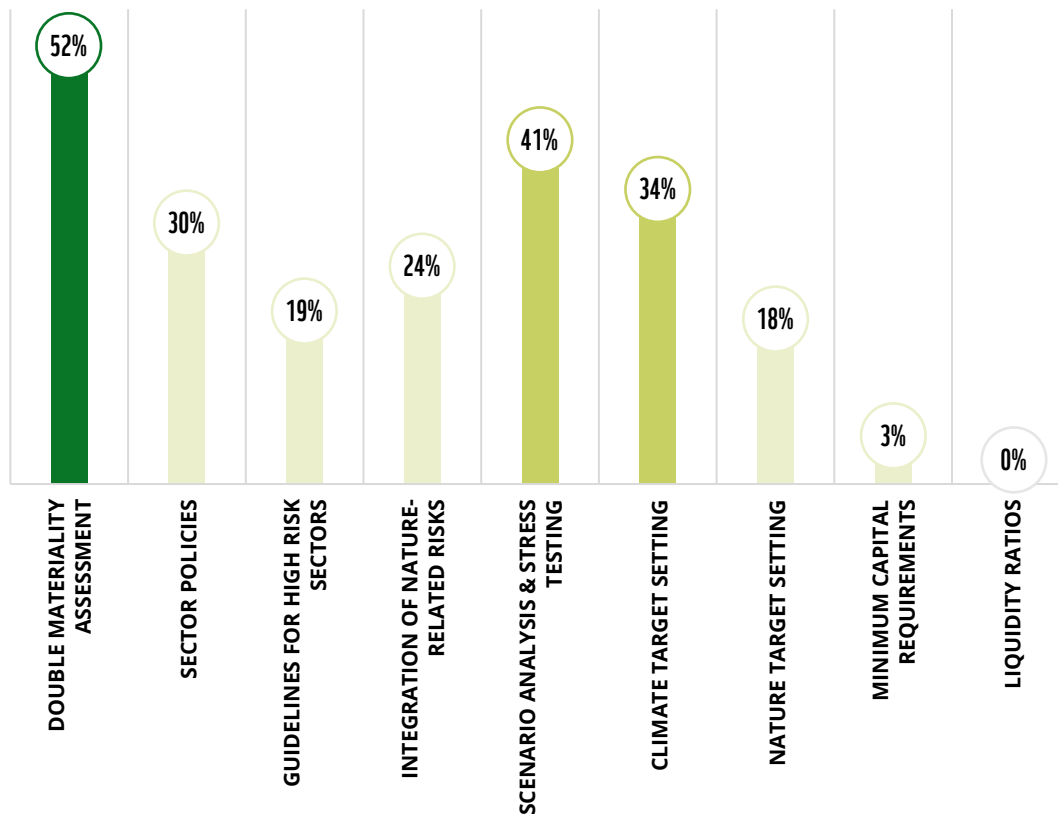
[5] Number of banks as of end-July 2023

[6] As of 9 August 2023



SUPERVISORY EXPECTATIONS ON KEY INDICATORS SUCH AS DOUBLE MATERIALITY, CLIMATE & NATURE TARGET SETTING, AND MINIMUM CAPITAL REQUIREMENTS REMAIN INADEQUATELY ENFORCED

FIGURE 6: AVERAGE ACHIEVEMENT OF 45 COUNTRIES ON SELECT INDICATORS OF BANKING SUPERVISION



Note: The number displayed on the graph represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment, the results were given equal weight. Partially met criteria allow for a 50%, while fully met criteria result in a 100% fulfillment.



DOUBLE MATERIALITY:

When performing a double materiality assessment, a financial institution should consider both the effect that the institution has on the environment and society (impact materiality), as well as the effects the society and environment has on the institutions (financial materiality). There are, however, still 33 countries that have only partial expectations on this topic (which generally means that they only require outside-in assessment of C, E, & S risks and how it impacts the financial institutions) or that they have no expectation at all.



GUIDELINE ON HIGH-RISK SECTORS:

Not many supervisors have issued specific guidelines or checklists covering banks' activities in sectors with high E&S risks and impacts. Malaysia and Indonesia are the only countries that have issued detailed guidelines for financial institutions on key high-risk sectors. The rest have only mentioned lists of sectors with high impact on climate with limited detailed guidance how to manage risks in these sectors or have no guidance at all.

The Financial Service Authority of Indonesia (OJK) issued a guideline for Sustainable Palm Oil Financing in 2019 with an aim to increase the banks' understanding of the palm oil plantation business and ways to reduce and mitigate credit risks arising from it including environmental related risks.





CLIMATE TARGET SETTING

Banks are expected to set climate science-based targets, keep up to date with the latest climate science, and align their portfolios with the objectives of the Paris Agreement. This expectation is mentioned in Malaysia, Spain, and Thailand. 25 additional countries have some partial expectations (e.g. the targets are not explicitly required to be science-based or non-mandatory), whilst 17 countries still do not set any expectations on the matter.



NATURE TARGET SETTING

Expectations to set science-based targets to mitigate negative environmental impacts beyond climate is equally important. This target setting should aim at stopping nature loss by 2030 and guiding the world to full biodiversity recovery by 2050. France is the only country that has a clear expectation on this, European Union countries have indirect expectations to set a target, but it is mentioned very broadly. The remaining countries have no expectation at all on this.



CAPITAL REQUIREMENT

Supervisors in the European Union, Hungary, and Italy have discussed to incorporate E&S risks in the calculation of either minimum capital requirements or capital add-ons for banks. However, a concrete translation of this into capital requirement has not actually taken place. The remainder of the countries do not have this mechanism yet.



LIQUIDITY RATIO

None of the assessed banking regulators or supervisors have incorporated risk-based E&S considerations in the calculation of liquidity ratios. According to BIS, banks should consider material climate-related financial risks in their internal liquidity stress tests to assess their potential impact on net cash outflows or the value of liquidity buffer assets. These assessments may inform the level of liquidity banks should hold beyond the Liquidity Coverage Ratio (LCR) minimum.

Bank of Thailand in their policy statement expect financial institutions to put in place an evaluation process to measure the success of implementation plan, including **setting clear target and key performance indicators for effective assessment and monitoring**, such as setting the target on environmentally friendly funding or science-based emission reduction targets (such as greenhouse gas emission reduction targets in line with the Paris Agreement based on climate science, which targets the average global temperature increase of no more than 1.5 – 2.0 degree Celsius.



The Code Monétaire et Financier L53316-1 of France expects **credit institutions and investment firms to publish a strategy for alignment with the long-term biodiversity objectives set for 2030, then every five years**, on: (a) compliance with the Convention on Biological Diversity 1992 objectives, (b) contribution to the reduction of the main pressures and impacts on biodiversity identified by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and (c) support for a biodiversity footprint indicator and the way to measure compliance with international objectives related to biodiversity.

The **Central Bank of Hungary (MNB)** has introduced a **green preferential capital requirement** in 2021 which waives part or all of the capital requirement for the environmentally sustainable corporate and local government exposures that meet their sustainability criteria.



MALAYSIA'S GUIDES FOR HIGH-RISK SECTORS



BANK NEGARA MALAYSIA
CENTRAL BANK OF MALAYSIA

Bank Negara Malaysia (BNM) launched the Value-based Intermediation (VBI) Financing and Investment Impact Assessment Framework (VBIAF) in November 2019^[1], aiming to facilitate the implementation of an impact-based risk management system for assessing the financing and investment activities of Islamic financial institutions (IFI). Although the guide was prepared by a working group of Islamic financial institutions (FIs) in Malaysia. The impact-based approach takes into consideration the effects of FIs funding choices on stakeholders, based on the principles and strategies aligned with its Corporate Value Intent (CVI) and the broader objective of achieving a sustainable and resilient future.

Following the launch of the VBIAF, ten sectoral guides on high-risk sectors^[2] have been launched to support the implementation of VBI. In early 2021, the first cohort of VBIAF Sectoral Guides focusing on Palm Oil, Renewable Energy, and Energy Efficiency was issued. A year later, the second cohort of VBIAF Sectoral Guides focusing on Oil & Gas (O&G), Manufacturing, and Construction & Infrastructure (C&I) was released.

The third cohort of VBIAF is on Agriculture, Mining & Quarrying, Road Transportation, and Waste Management sectors.

Each guide includes suggested risk metrics that can be used by the financial institutions during an onboarding assessment to determine the clients' E&S risks on the high risks sector. FIs are encouraged to regularly update the mentioned assessment, at a minimum on an annual basis, and when renewing or reviewing financing facilities or investments. This can be achieved by requesting the counterparty to submit an annual report, ensuring the information stays current and relevant.

Further, FIs should develop different impact metrics for different counterparties and assign appropriate risk score/level for each of the impact metric. FIs also need to determine a decision-making rule based on the aggregate risk score of the impact-based metrics/indicators above and their respective risk appetite statement. Illustration on transaction-level risk metrics and risk score are provided in each sectoral guide in which FIs could refer to.

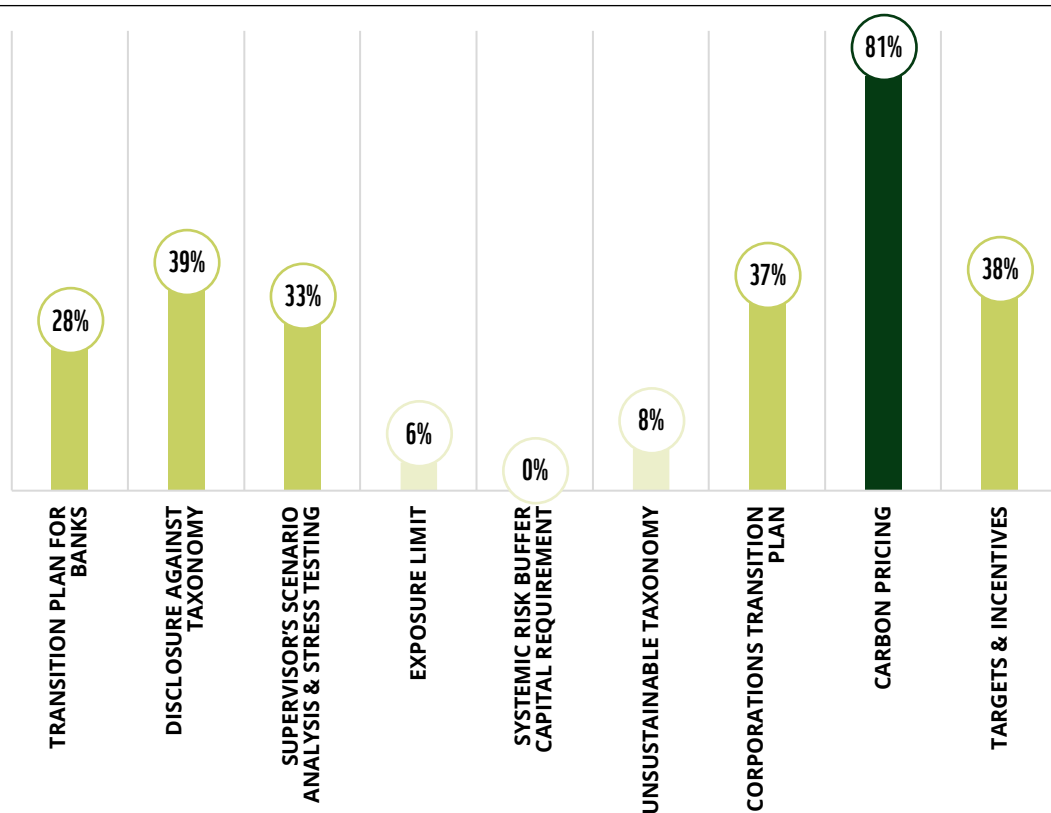


[1] Value-based Intermediation (VBI) Financing and Investment Impact Assessment Framework (VBIAF)

[2] VBIAF Sectoral Guidance

DESPITE THEIR IMPORTANCE, EFFECTIVE IMPLEMENTATION OF TRANSITION PLANS, EXPOSURE LIMITS, SYSTEMIC RISK BUFFERS, AND UNSUSTAINABLE TAXONOMIES IS NOT APPLIED ACROSS MANY COUNTRIES

FIGURE 6: AVERAGE ACHIEVEMENT OF 45 COUNTRIES ON SELECT INDICATORS OF BANKING SUPERVISION



Note: The number displayed on the graph represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment, the results were given equal weight. Partially met criteria allow for a 50%, while fully met criteria result in a 100% fulfillment.



TRANSITION PLAN

Most countries assessed have a partial fulfilment to SUSREG criteria on this indicator, in which, the supervisors require banks to publicly disclose their time-bound transition plans derived from the defined strategies and goals but in a less specific manner.



EXPOSURE LIMIT

Specific prudential rules for banks to limit loan exposure to the most environmentally harmful activities (such as new fossil fuel projects), including phase-out plans and targets are mentioned although not in a concrete manner in Brazil, France, Hungary, Germany and Sweden.



SYSTEMIC RISK BUFFER

No countries have defined clear expectations towards incorporating a macro-prudential buffer for systemic E&S risks in their specific capital requirements for banks. The systemic risk buffer aims to address systemic risks that are not covered by the capital requirements regulation.

The OSFI of Canada expect the Federally Regulated Financial Institution (FRFI) to **develop and implement a Climate Transition Plan, in line with its business plan and strategy**. In developing the Plan, the FRFI should assess the achievability of its Plan under different climate-related scenarios and how it would measure and assess its progress against the Plan (e.g., internal metrics and targets such as GHG emissions).

Finansinspektionen, the financial supervisor of Sweden, mentioned in their report that **financial firms may need to reduce their financing of activities that are not sustainable in the long run or hold more capital in relation to, for example, climate risks**.





UNSUSTAINABLE TAXONOMY

The development of an unsustainable taxonomy and the corresponding disclosure requirements is equally crucial. Such an approach enables a comprehensive assessment of the extent to which financial flows are still contributing to the degradation of our planet. There are at least four countries that have developed or plan to develop a taxonomy for unsustainable activities: Indonesia, Singapore, Thailand and Brazil. The EU-taxonomy also identified unsustainable activities through activity-based "Do-no-significant harm" criteria. It is also worth noting that WWF has come up with a list of 'Always Environmentally Harmful' activities in the [Central Banking and Financial Supervision Roadmap](#).



CORPORATE TRANSITION PLAN

Corporates are required to publish transition plans on how they will achieve and set strategies pertaining to climate, environmental and social goals in 14 countries under SUSREG scope within the EU under the Corporate Sustainability Reporting Directive (CSRD) and European Sustainability Reporting Standards (ESRS). There are other 9 countries that have lower expectation for corporates on transition plans (non-binding, still a plan, or less granular expectation).



TARGET & INCENTIVES

Specific targets or incentives are in place for banks to increase their support to certain industry sectors, based on sustainability considerations, in 12 countries – more than half of them located in Asia Pacific. The target and incentive can be in the form of minimum share of lending to certain sectors, grants to cover additional costs for frameworks to support certain sectors or activities, relaxed prudential rules or capital requirements associated with green / sustainable financing, etc.

The **taxonomy in Indonesia, Singapore and Thailand adopt a traffic light system** which includes **red categories of harmful activities** that are not compatible with climate and environmental goals and needs to be phased out. In Thailand and Singapore, the taxonomy has published detailed list of activities thresholds and criteria to qualify for the traffic light classification of specific sectors. More sectors are expected to be covered by both taxonomies.

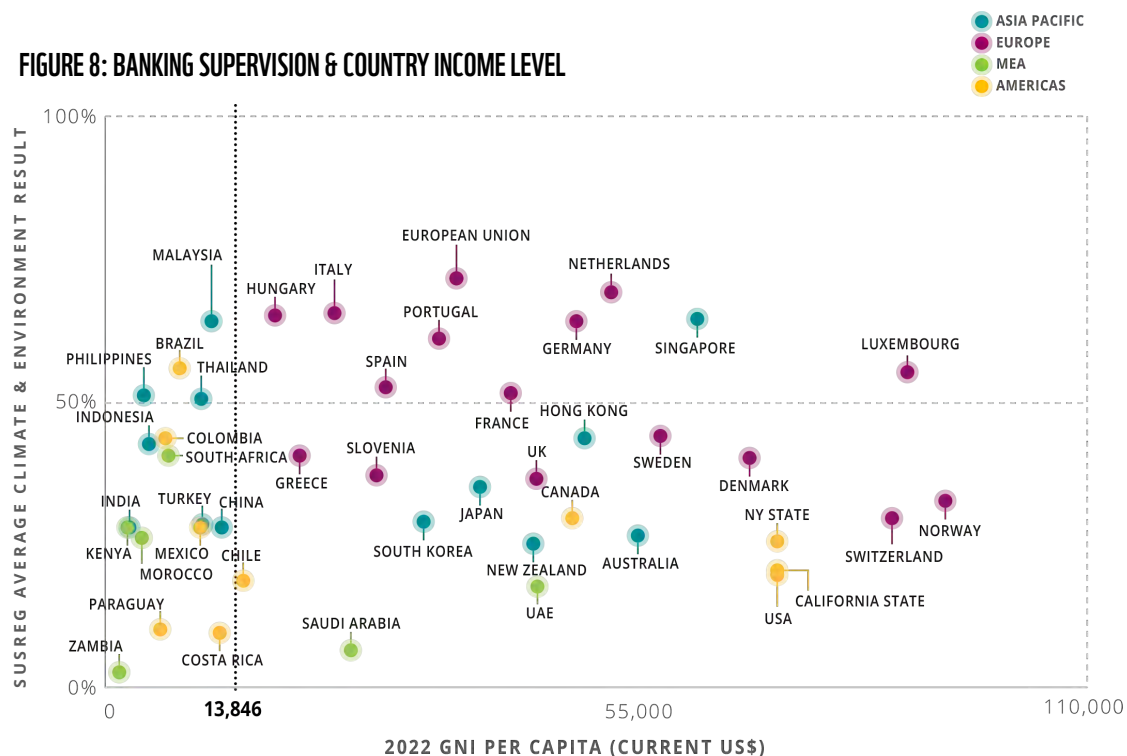


Under the CSRD and ESRS, undertakings in the European Union shall disclose its transition plan for climate change mitigation which outlines an explanation of how the transition plan is embedded in and aligned with the undertaking's overall business strategy and financial planning. In case the undertaking does not have a transition plan in place, it shall indicate whether and, if so, when it will adopt a transition plan. More detailed explanation can be found in the last chapter.

Monetary Authority of Singapore (MAS) will expand the scope of its sustainable bond and loan grant schemes to include transition bonds and loans, with safeguards in place to mitigate the risk of "transition-washing" and ensure alignment with internationally recognized taxonomy and transition finance principles. To promote transparency in the sustainable debt market, **MAS will incentivize the early adoption of entity-level sustainability disclosures by issuers or borrowers. MAS has set aside S\$15 million over the next five years till end 2028 for the enhanced grant schemes.**

TWO-THIRDS OF ALL HIGH-INCOME NATIONS HAVE NOT YET ADOPTED ADEQUATE CLIMATE AND ENVIRONMENTAL BANKING SUPERVISION POLICIES

FIGURE 8: BANKING SUPERVISION & COUNTRY INCOME LEVEL



Source of GNI per capita: The World Bank, 2022

Note: GNI per capita (formerly GNP per capita) is the gross national income, converted to U.S. dollars using the World Bank Atlas method, divided by the mid-year population. For the current 2024 fiscal year, high-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of \$13,846 or more in 2022. We used the average of SUSREG climate and environmental assessment under this graph. California and New York are attributed the same GNI as the USA here.

- High-income countries possess greater economic resources, which provide a cushion for the necessary transition. They have a pivotal role in leading the effort for robust banking supervision concerning climate and environmental risks, facilitating a swift transition towards a sustainable economy.
- Despite their economic strength, a surprising trend emerges: 4 out of 5 of the world's wealthiest countries and a staggering 68% of all high-income countries have not adopted adequate climate and environmental banking supervision policies.
- Their performance falls short of achieving even 50% of the SUSREG policy scorecard. This raises a pressing question: Are high-income countries fulfilling their responsibilities in this crucial area?
- On a positive note, several European nations, including the Netherlands, Germany, Portugal, and Hungary, have shown a strong commitment to addressing climate and environmental risks through robust banking supervision policies.
- Additionally, a handful of middle-income countries, such as Brazil and Malaysia, have also demonstrated commendable efforts in this.

In the Climate Risk Management guideline issued by Office of the Superintendent of Financial Institutions (OSFI), the federally regulated financial institutions (FRFIs) are expected to use the latest Partnership for Carbon Accounting Financials' (PCAF's) in their calculation of Scope 3 GHG emissions. The FRFI is also expected to disclose any public climate-related commitment(s), if the FRFI has made one or more, whether through an industry-led Net-Zero alliance (e.g., Net-Zero Banking Alliance, Net-Zero Insurance Alliance, other) or otherwise.



UPCOMING SUPERVISORY EXPECTATIONS IN SWITZERLAND ON THE MANAGEMENT OF NATURE-RELATED FINANCIAL RISKS



The Swiss Financial Market Supervisory Authority (FINMA) has announced that it is preparing to issue supervisory expectations on the management of nature-related financial risks. These will be mandatory and will apply to banks and insurers. The expectations will be published in the form of a FINMA circular that is expected to come into force in 2025. The circular will implement the current guidance provided by international standard setters, in particular the Basel Committee on Banking Supervision (BCBS) and the International Association of Insurance Supervisors (IAIS), for Switzerland. A pre-consultation with relevant stakeholders was conducted during 2023 and a public consultation process will start in early 2024.

The circular is currently intended to cover all relevant nature-related financial risks rather than focusing solely on climate-related financial risks. This reflects FINMA's recent change in approach whereby it will consider climate risk as part of nature risk in its supervisory activities. This will allow it, for example, to appropriately reflect the intertwined crises of climate change and biodiversity loss. To ensure compatibility with international developments, FINMA is planning to model its approach on the NGFS Conceptual Framework on

Nature-related Financial Risks and is taking into account relevant recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD) and the standards of the International Sustainability Standards Board (ISSB).

The circular will specify FINMA's supervisory expectations for the integration and explicit consideration of nature risks as risk drivers in the firm-wide risk management frameworks and processes of banks and insurers, including these firms' governance and strategic considerations regarding their business models. In line with FINMA practice, the circular is principle-based. It will also apply some elements of proportionality, whereby firms with more complex set-ups and higher risk profiles will face higher expectations.

The aim of the circular is to strengthen the internal risk management of firms and clarify FINMA's expectations regarding this topic. The circular will not cover disclosure requirements, as FINMA's existing climate-related disclosure requirements^[1] will remain in place for the time being. They will be revised at a future date, under consideration of the national and international developments for disclosure requirements.

"The circular on the management of nature-related financial risks is a key part of FINMA's sustainable finance strategy^[2] and fundamental for the integration of nature-related financial risks into supervisory practice."

**THE SWISS FINANCIAL MARKET
SUPERVISORY AUTHORITY (FINMA)**

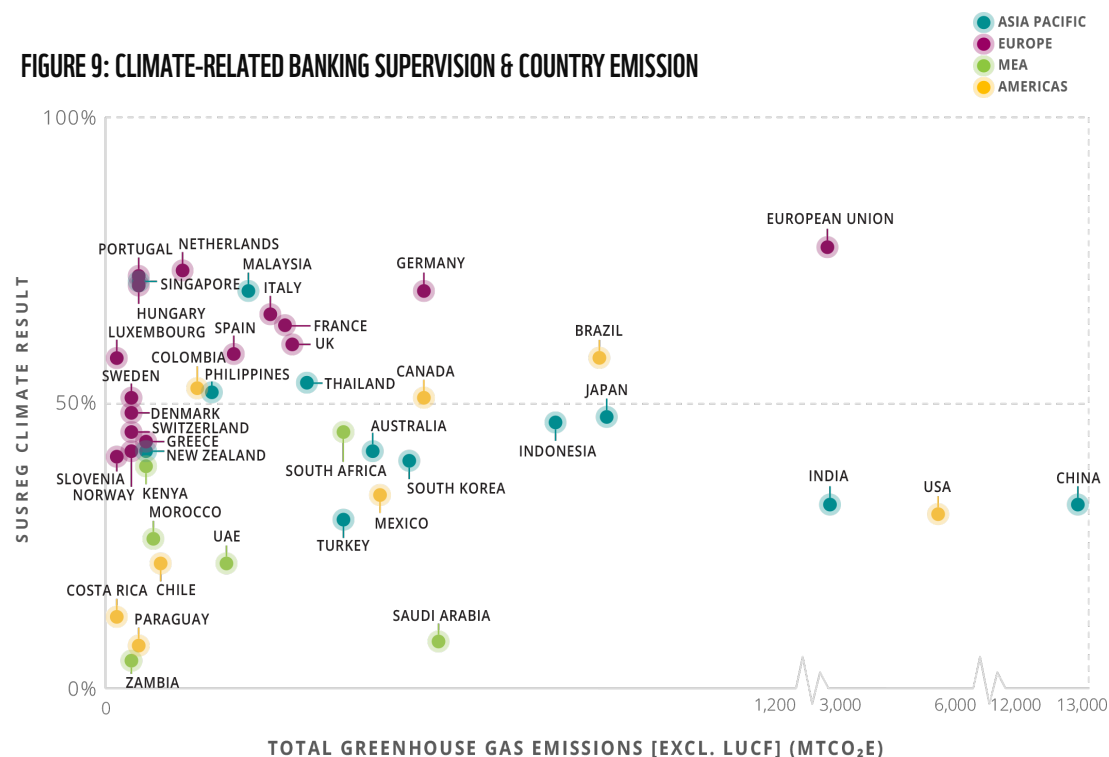


[1] FINMA specifies transparency obligations for climate risks

[2] Dossier on Sustainable Finance | FINMA

THE TOP THREE CARBON EMITTERS IN THE WORLD MEET LESS THAN HALF OF THE INDICATORS CRITERIA FOR CLIMATE FINANCE POLICIES IN THE BANKING SECTOR

FIGURE 9: CLIMATE-RELATED BANKING SUPERVISION & COUNTRY EMISSION



Source of country 2022 emission: The World Bank
 Note: Total greenhouse gas emissions in kt of CO₂ equivalent are composed of CO₂ totals excluding short-cycle biomass burning (such as agricultural waste burning and savanna burning) but including other biomass burning (such as forest fires, post-burn decay, peat fires and decay of drained peatlands), all anthropogenic CH₄ sources, N₂O sources and F-gases (HFCs, PFCs and SF₆). This series excludes Land-use Change & Forestry (LUCF).

- Countries with higher levels of carbon emissions bear a profound responsibility in the global fight against climate change. To effectively address this critical issue, these nations must establish comprehensive climate regulations that extend to the banking sector.
- Alarming, many of the world's top-emitting countries lack adequate climate-related oversight in the banking industry. In the absence of effective prudential regulations, financial institutions may continue to channel financing into industries with substantial carbon emissions and environmentally harmful activities. This situation exacerbates the already critical climate crisis.
- Notably, China, the USA and India, the world's three largest carbon emitters, both have climate finance policies for the banking sector that fall below the 50% of SUSREG criteria. Looking at their prominent contributions to global emissions, these countries have much room for improvement in aligning their financial systems with climate goals.
- However, we must also note that in considering accountability for climate change, it's essential to acknowledge the historical emission responsibility. According to the Global Carbon Project, 23 rich, developed countries are collectively responsible for half of all historical CO₂ emissions^[1]. Recognizing historical contributions is vital in holding countries accountable for their past and ongoing impact on the planet, underscoring the need for a collective effort in addressing climate change.

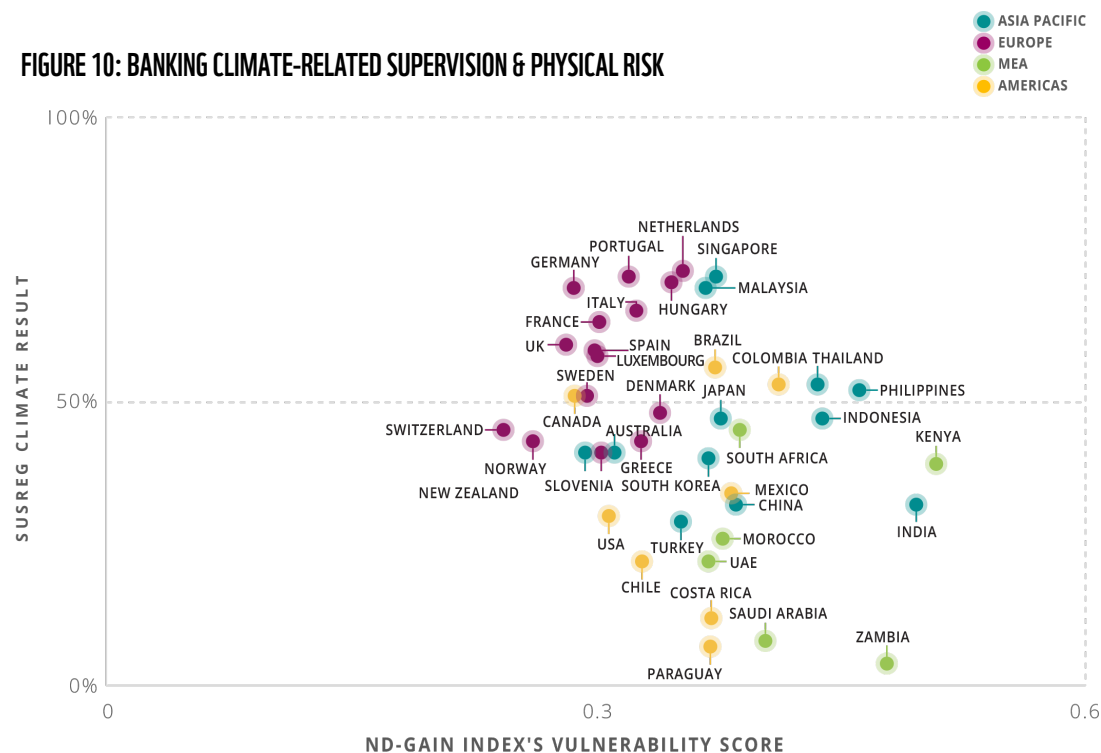
The European Commission regulation C(2021) 4987 requires credit institutions to *disclose their green asset ratio (GAR)*. The GAR shall show the proportion of the credit institution's assets *financing and investment in taxonomy aligned economic activities as a proportion of total covered assets*.



[1] [Who Has The Most Historical Responsibility for Climate Change?](#)

THE CLIMATE CRISIS DISPROPORTIONATELY IMPACTS THE MOST VULNERABLE. COUNTRIES IN AFRICA AND LATIN AMERICA, DESPITE BEING HIGHLY EXPOSED TO CLIMATE PHYSICAL RISKS, OFTEN LACK ROBUST CLIMATE BANKING SUPERVISION POLICIES

FIGURE 10: BANKING CLIMATE-RELATED SUPERVISION & PHYSICAL RISK



Source of countries' climate physical vulnerability: Notre Dame Global Adaptation Initiative, 2021
 Note: Notre Dame Global Adaptation Initiative Index (ND-GAIN)- vulnerability score measures a country's exposure, sensitivity and capacity to adapt to the negative effects of climate change. ND-GAIN measures overall vulnerability by considering six life-supporting sectors – food, water, health, ecosystem service, human habitat, and infrastructure.

- Climate physical risks pose a direct and immediate threat to the financial stability of nations, requiring proactive regulatory responses. Countries facing elevated climate physical risks must recognize the imperative of implementing prudent regulatory measures. The urgency lies in acknowledging that these risks are not remote possibilities but imminent reality.
- The stark reality is that the climate crisis disproportionately impacts the most vulnerable, particularly the poorest countries. The World Bank highlights a troubling statistic: only one-tenth of the world's greenhouse gases are emitted by the 74 lowest-income countries, yet they will be most affected by the effects of climate change ^[1].
- When comparing the SUSREG climate result with a country's physical vulnerability score from the ND-GAIN Index, a concerning trend emerges. Most countries in Africa and Latin America, despite being highly exposed to climate physical risks, often lack robust climate supervision policies within their banking sectors.
- This inequity underscores the need for global action that does not only mitigate emissions but also addresses the profound disparities in climate impacts. The resources within these vulnerable countries might not be enough to implement these measures, support and assistance from the international community are necessary.

The Central Bank of Kenya has issued a guidance on Climate-Related Risk Management under the Banking Act, with the purpose of requiring banks to:

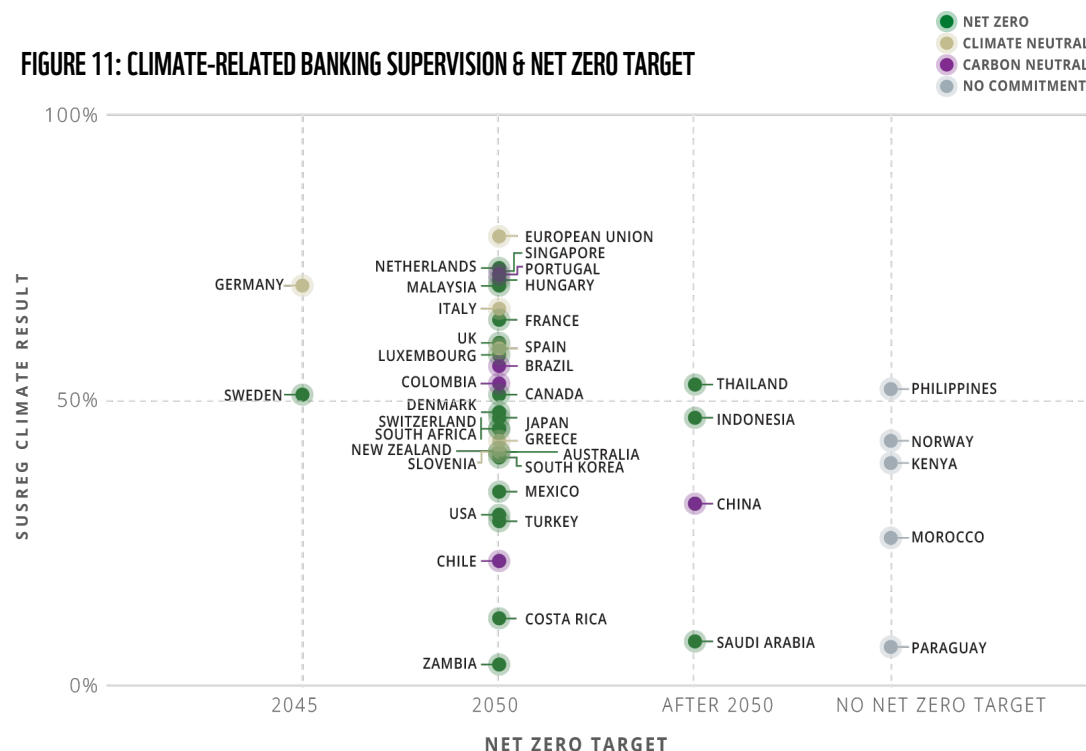
- embed the consideration of the financial risks from climate change in their governance arrangements.
- incorporate the financial risks from climate change into their existing financial risk management practice.
- develop an approach to disclosure on the financial risks from climate change.



[1] The Climate Risk Management Framework

20 COUNTRIES WITH 2050 NET-ZERO TARGETS HAVE INCOMPLETE CLIMATE BANKING SUPERVISION POLICIES FULFILLING LESS THAN HALF OF SUSREG CRITERIA

FIGURE 11: CLIMATE-RELATED BANKING SUPERVISION & NET ZERO TARGET



Source of countries' net zero target: Net Zero tracker (2023)

Note: Although Norway has not formally adopted a net-zero target, the country has established a goal to reduce its greenhouse gas emissions by 90 to 95 percent by the year 2050, compared to emission levels in the reference year 1990.

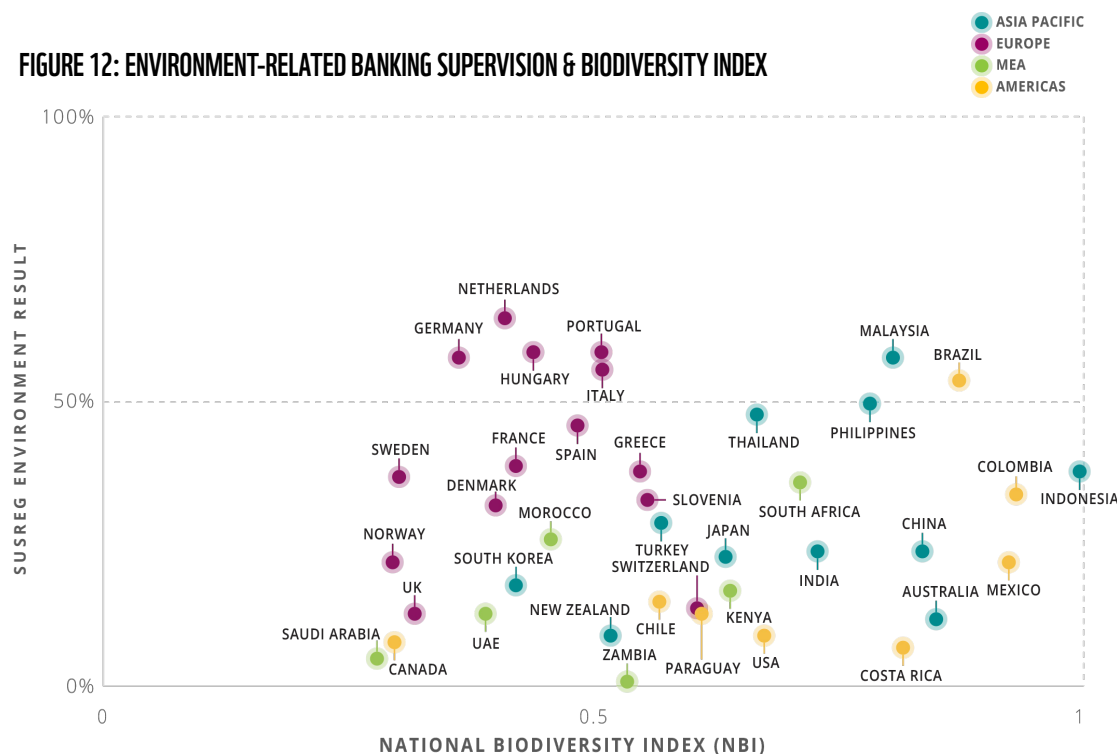
- It is encouraging to observe the commitment of numerous governments to achieve net-zero emissions, although these commitments can vary significantly across several dimensions. These disparities encompass factors such as the timeline for achieving net-zero, the specific types of greenhouse gas emissions and economic sectors covered, reliance on emissions removals from external sources, legal status, and various other implementation-related considerations.
- With this ambitious commitment, governments should mobilize all sectors, including the financial sector, to align and achieve these targets. However, this theoretical ideal doesn't always align with reality. Surprisingly, many countries with 2050 net-zero targets have notably low climate banking supervision policies.
- This raises a fundamental question: Are governments genuinely prepared to take the necessary actions to achieve their net-zero targets? It underscores the need for not only ambitious commitments but also robust policies, regulations, and oversight, particularly within the financial sector, to ensure that these commitments translate into meaningful and effective climate action.

*The **Swiss federal government** has set a **target for climate-friendly alignment of financial flows**. The government ensures that the Swiss financial center makes an effective contribution to low-emission development that is resilient to climate change. In particular, measures are to be taken to reduce the climate impact of national and international financial flows. **The Swiss net zero target has also been confirmed by popular vote in June 2023.***



COUNTRIES WITH THE RICHEST BIODIVERSITY ARE IN THE DEVELOPING WORLD AND EXHIBIT LIMITED BANKING SUPERVISION ON BROADER ENVIRONMENTAL RISKS

FIGURE 12: ENVIRONMENT-RELATED BANKING SUPERVISION & BIODIVERSITY INDEX



Source of National Biodiversity Index: Convention on Biological Diversity (CBD)
 Note: The National Biodiversity Index (NBI) is based on estimates of country richness and endemism in four terrestrial vertebrate classes and vascular plants; vertebrates and plants are ranked equally; index values range between 1.000 (maximum: Indonesia) and 0.000 (minimum: Greenland, not shown in table). The NBI includes some adjustment allowing for country size. Countries with land area less than 5,000 sq km are excluded. Overseas territories and dependencies are excluded from this column.

- While majority of efforts in banking supervision have primarily focused on climate-related issues, it is crucial to recognize that nature has played a substantial role in mitigating the effects of human-related carbon dioxide emissions (e.g., carbon sinks, physical climate risk reduction, etc.).
- Recent developments, such as the adoption of the Kunming-Montreal Global Biodiversity Framework by parties to the Convention on Biological Diversity, have set ambitious targets. Signatory nations have committed to protecting at least 30% of both land and ocean by 2030. However, it's also essential to recognize that biodiversity is not evenly distributed across the globe.
- Many countries with the richest biodiversity are in the developing countries, including nations like Indonesia, Colombia, and Mexico. Yet, their banking supervision on broader environmental risks are still quite weak. These countries play a strategic role in global biodiversity preservation efforts, and their focus on nature conservation should extend to banking supervision policies.
- However, we must acknowledge the global responsibility of all countries because financial flows, whether originating directly or indirectly from outside these countries, significantly contribute to environmental degradation in the countries with a high national biodiversity index. This underscores the importance of responsibility extending beyond national jurisdictions. The interconnectedness of economies and their environmental impact highlights the need for a collective effort to preserve nature and address global environmental challenges.

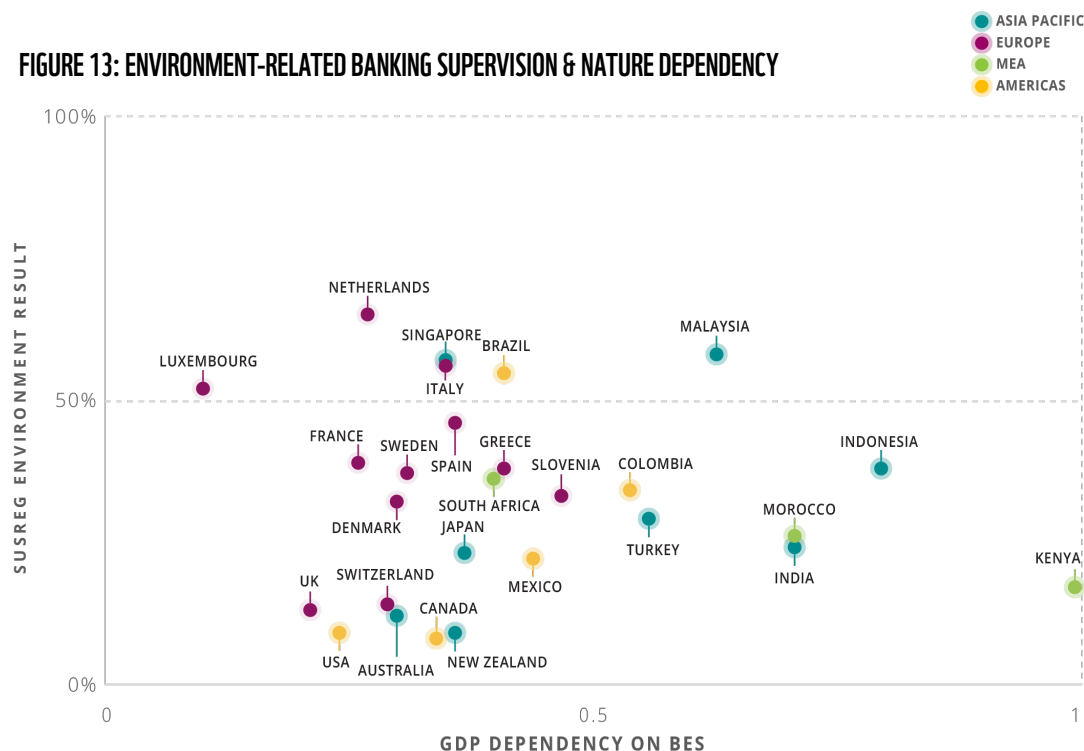
*The Due Diligence Questions of Bank Negara Malaysia's Climate Change Principle-based Taxonomy's under the guiding principle 3 "no significant harm to the environment" includes great details of **ecosystem service and biodiversity issues**. These include questions such as whether clients' business operation is located in or near biodiversity-sensitive areas, whether the clients' business create negative impacts on nature, whether the company has; a) efforts in minimizing footprints to relevant ecosystems, b) internal measures on the protection and conservation of biodiversity, and c) looking to achieve deforestation and conversion-free supply chains across relevant high-risk commodities*





BANKING SUPERVISION ON NATURE RELATED RISKS IS LAGGING IN A MAJORITY OF COUNTRIES REGARDLESS OF THEIR ECONOMIC DEPENDENCY ON NATURE

FIGURE 13: ENVIRONMENT-RELATED BANKING SUPERVISION & NATURE DEPENDENCY



Source of GDP Dependency on BES: Biodiversity and Ecosystems Services (BES) Index by Swiss RE
 Note: Country specific export-import relations, respectively cross-country input output tables connected to all BES in scope, to unfold dependencies on BES in other countries, were not available yet and hence not taken into account in the calculation of GDP dependency on BES

- Nations across the globe rely on a variety of essential natural services to uphold the well-being and resilience of their economies. These crucial services, collectively referred to as biodiversity and ecosystem services, encompass functions such as ensuring a stable food supply, safeguarding water resources, and regulating the quality of the air in local environments, among numerous others.
- Countries with a high GDP direct dependency on Biodiversity and Ecosystem Services (BES) like Kenya, Indonesia, India, and Morocco should immediately tackle potential BES shocks to the economy and financial system. Unfortunately, banking supervision on nature related risks have been lagging in the majority of countries regardless of their economic dependency on BES.
- While governments bear primary responsibility for addressing environmental damages such as biodiversity loss, the financial sector has an important complementary role. Nature blind financial supervision will exacerbate the already aggravated environmental degradation.
- However, it's important to note that this dependency data does not encompass export-import relationships. Therefore, the GDP dependency on BES may be underestimated for countries with a significant reliance on imported BES.
- On 29 June 2023, the European Union Regulation on Deforestation-free Products (EUDR) entered into force^[1]. Companies placing or exporting the affected products in or from the EU market will have to conduct due diligence to confirm that the products have not been sourced from land which was deforested or degraded after 31 December 2020.

"A Guideline on the use of Deforestation Risk Mitigation Solutions for Financial Institutions" was published by the Sustainable Finance Platform chaired by the **De Nederlandsche Bank (DNB)**. The guide aims to provide financial institutions around the globe with actionable steps and specific services to analyse and mitigate their impact on deforestation.



[1] European Union Regulation on Deforestation-free Products (EUDR)



THE HUNGARIAN CENTRAL BANK LAUNCHED A PROJECT TO ASSESS FINANCIAL RISKS RELATED TO BIODIVERSITY LOSS AND DEVELOP FINANCIAL SUPERVISORY METHODOLOGIES TO ADDRESS THOSE RISKS

The Magyar Nemzeti Bank (MNB), the Hungarian central bank, has initiated a research project^[1] aimed at evaluating the financial risks associated with biodiversity loss and develop a financial supervisory framework to manage these risks, together with the Organisation for Economic Co-operation and Development (OECD). The Project^[2] intended to enhance risk management for MNB and banks with retail business in Hungary by assisting these institutions in becoming more aware of biodiversity-related financial risk, their potential effect, and increasing the understanding of biodiversity-related financial risks, including exposures, impacts, and interdependencies.

The latest report^[3] was launched in September 2023, introducing a methodological supervisory framework designed to assist central banks and financial supervisors in their assessment of financial risks related to biodiversity — helping financial authorities and commercial banks to identify and prioritise, conceptualise, and assess nature-related financial risks. The framework consists of four-steps approach, (i) Risk identification and prioritisation; (ii) Economic risk assessment; (iii) Financial risk assessment; and (iv) Considerations for supervisors.

The risk identification process consists of a three-phase approach: (i) impacts and dependencies assessment; (ii) economic sector identification; and (iii) ecosystem identification. The approach offers financial authorities a list of prioritisation questions to understand how to apply the methodological framework in each of the phases.

The section on economic risk assessment provides an in-depth conceptualisation of the identified direct and indirect economic impacts stemming physical and transition risk. The assessment explained how the economy is affected differently when businesses deal with ecosystems directly, in contrast to when business only depend on or impact ecosystem services through their value chain.

The segment on financial risk assessment conceptualises different financial risk channels, including credit, market, liquidity and underwriting risks, and references other possible relevant channels. These are conceived through both micro- and macro-financial risk channels, to provide a full understanding of the possible impact of these risks. The chapter also provides an overview of risk contagion within the financial system and possible feedback between the financial sector and the real economy.

The last approach provides high-level considerations for supervisors regarding possible steps towards their integration into financial risk identification and assessment. It highlighted considerations with immediate applicability, short-to-medium-term implementation, and medium-to-long-term implementation.

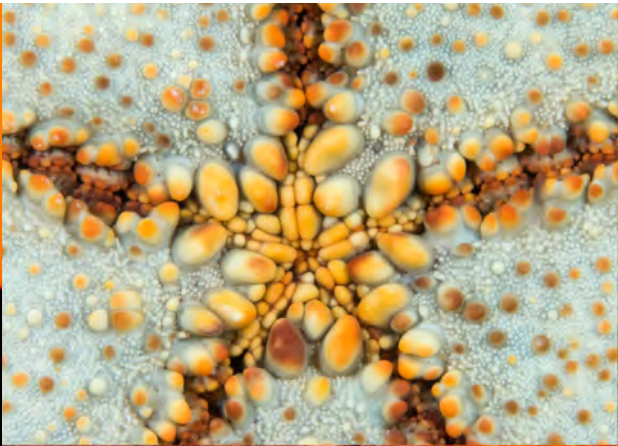
This report follows the initial release^[4] in April 2023, which centered on mapping various metrics and indicators to translate biodiversity risks into financial risks. It offers a catalogue and literature review of existing and emerging definitions, key metrics and indicators, measurement approaches, tools and practices designed for central banks, financial supervisors, and financial market participants to measure biodiversity-related financial risks.

[1] [MNB Green Programme: project launched to assess financial risks related to biodiversity loss](#)

[2] [Project on Developing a Supervisory Framework for Financial Risks Stemming from Biodiversity-related Losses](#)

[3] [A supervisory framework for assessing nature-related financial risk: Identifying and navigating biodiversity risks](#)

[4] [Assessing biodiversity-related financial risks: Navigating the landscape of existing approaches](#)

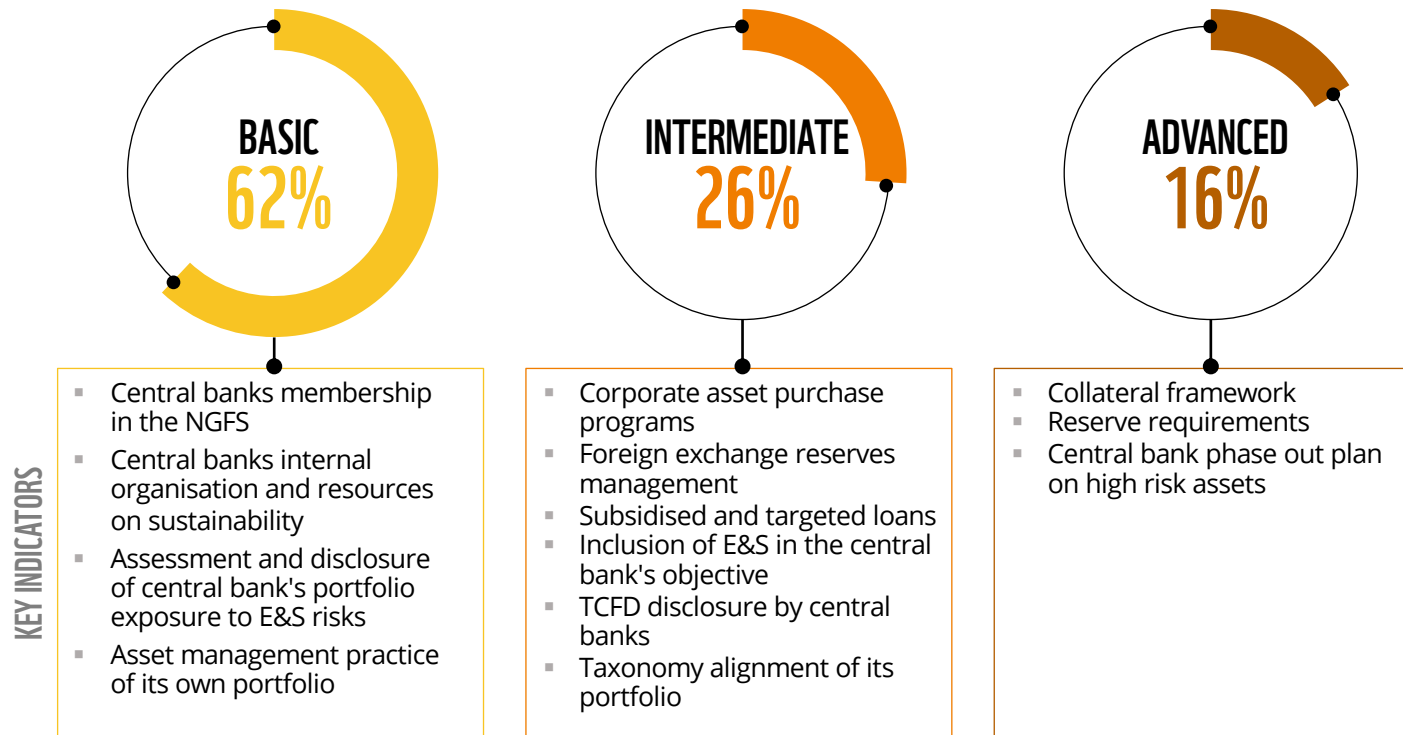


CENTRAL BANKING



ADVANCED INDICATORS WERE ONLY 16% FULFILLED, SIGNIFYING LIMITED PROGRESS IN INTEGRATING CLIMATE AND ENVIRONMENTAL RISKS INTO COLLATERAL FRAMEWORKS, RESERVE REQUIREMENTS, AND PHASE OUT PLANS ON HIGH-RISK ASSETS

FIGURE 14: SUSREG CENTRAL BANKING ACTIVITIES PROGRESS FOR CLIMATE & ENVIRONMENT ACROSS THREE DISTINCT CATEGORIES



Note: The number displayed in the graph represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment, the results were given equal weight. Partially met criteria allow for a 50%, while fully met criteria result in a 100% fulfillment.

- 62% of basic indicators such as membership to NGFS, internal organization and asset management of its own portfolio are met by the countries assessed.
- However, the performance drops significantly when it comes to intermediate indicators, with only a 26% achievement rate. This demonstrates a lack of practices related to the integration of climate and environmental risk into monetary policy tools, such as corporate asset purchase programs, foreign exchange reserve management, and targeted lending. Additionally, there is limited progress in incorporating sustainability into central banks' mandates, adhering to TCFD disclosure requirements, and disclosing based on taxonomy.
- Moving to the advanced indicators, the level of fulfillment stands at a mere 16%. This indicates a low level of progress in areas such as integrating climate and environmental risks into collateral frameworks, reserve requirements, and lack of phase out plan of high-risk assets from central banks' portfolios.



OUT OF 45 COUNTRIES, ONLY 8 HAVE SHOWN COMMENDABLE EFFORTS IN INTEGRATING CLIMATE RISKS INTO THEIR MONETARY POLICY AND CENTRAL BANKING ACTIVITIES.

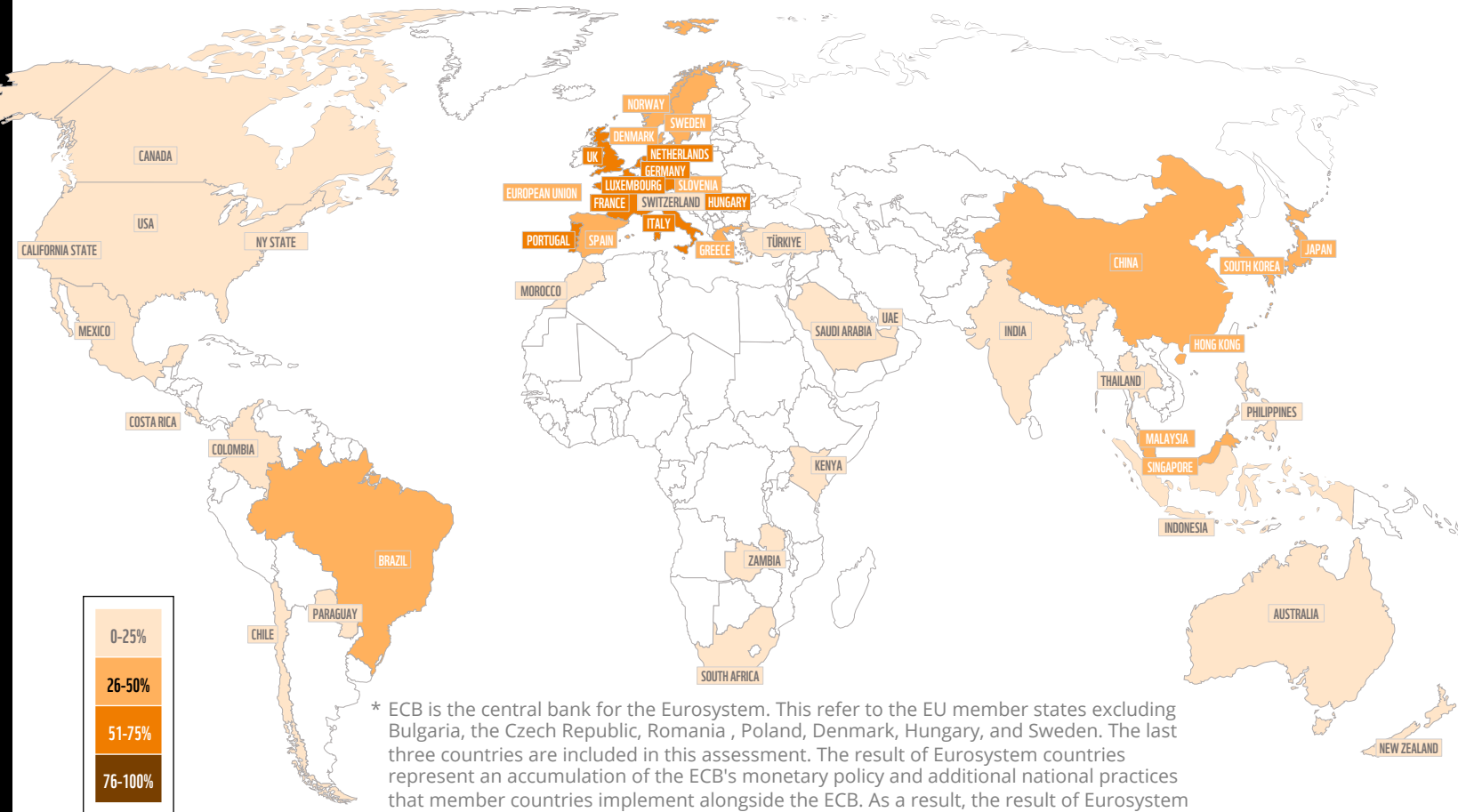
Traditionally, monetary policy and central banking activities have not been deemed relevant to climate change mitigation and broader environmental protection efforts.

Out of 45 countries, only 9 show substantial progress (with more than 50% fulfillment) in integrating climate risks into their monetary policy and central banking activities.

Note: The results shown throughout the report is derived from select indicators within the SUSREG assessment, with greater weightage given to indicators that carry more significant impact. Monetary policy and central banks' internal leadership are given weightage of 72%, and 28% respectively. It's important to note that SUSREG is not intended to serve as a ranking tool for countries; rather, the result shown is designed solely to analyze the level of progress in the countries assessed. We recognize that each country faces unique challenges and circumstances that cannot be fully captured by the result.



FIGURE 15: INTEGRATION OF CLIMATE-RELATED RISKS INTO MONETARY POLICY & CENTRAL BANKING ACTIVITIES



* ECB is the central bank for the Eurosystem. This refers to the EU member states excluding Bulgaria, the Czech Republic, Romania, Poland, Denmark, Hungary, and Sweden. The last three countries are included in this assessment. The result of Eurosystem countries represent an accumulation of the ECB's monetary policy and additional national practices that member countries implement alongside the ECB. As a result, the result of Eurosystem countries are typically the same as or higher than those of the European Union.



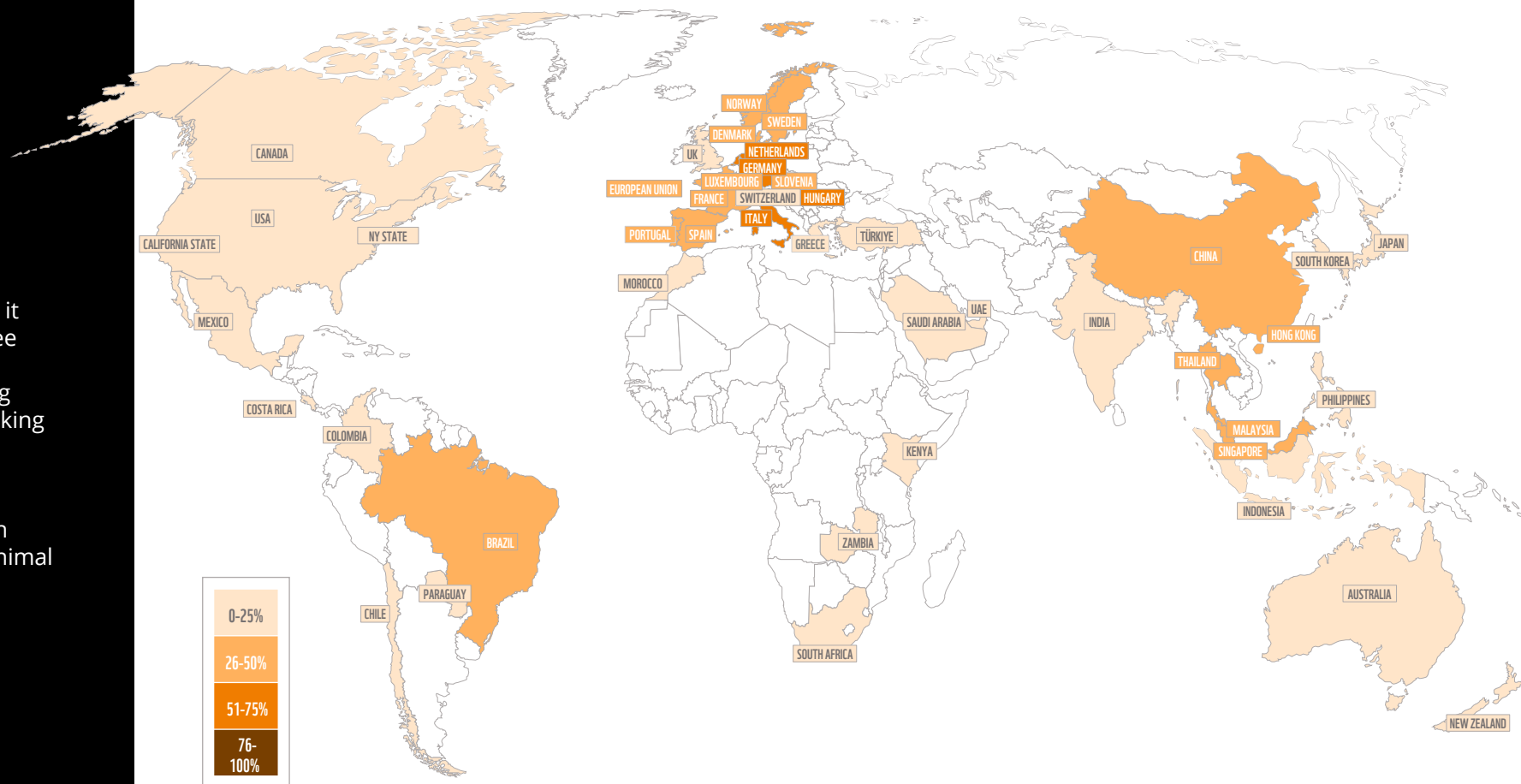
CENTRAL BANKS IN 26 COUNTRIES DEMONSTRATED VERY MINIMAL PROGRESS IN INTEGRATING BROADER ENVIRONMENTAL RISKS TO, MONETARY POLICY AND CENTRAL BANKING ACTIVITIES

While limited progress has primarily revolved around addressing climate-related issues, when it comes to broader environmental risks, only three countries which are all located in Europe, have shown commendable commitment in integrating them into their monetary policy and central banking activities.

In contrast, the integration of environmental considerations remains exceedingly limited, with central banks in 26 countries demonstrating minimal progress, falling below 25% fulfillment against SUSREG criteria.



FIGURE 16: INTEGRATION OF BROADER ENVIRONMENTAL RISKS INTO MONETARY POLICY & CENTRAL BANKING ACTIVITIES





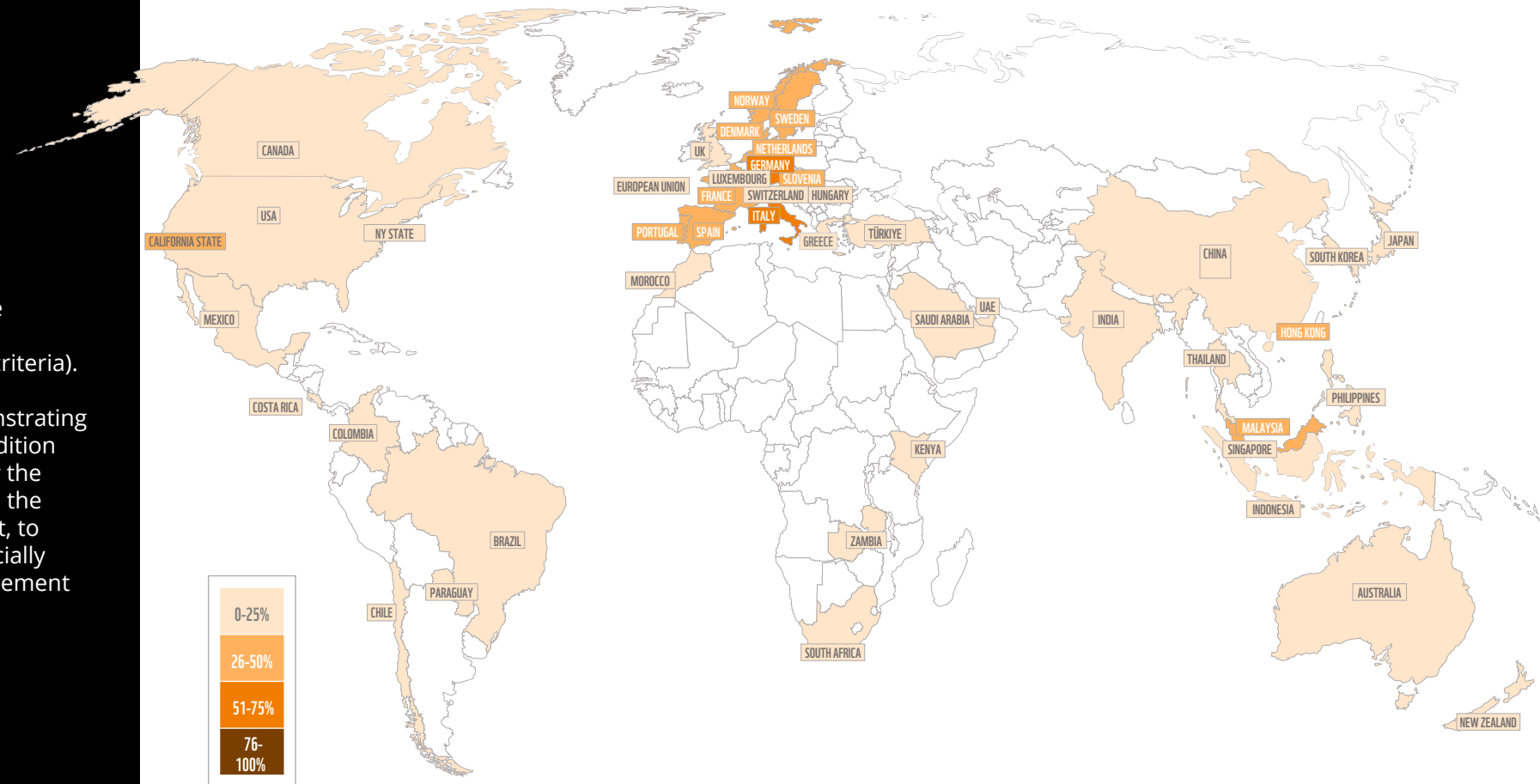
CENTRAL BANKS HAVE NOT MEANINGFULLY INTEGRATED SOCIAL CONSIDERATIONS INTO THEIR MONETARY POLICY AND CENTRAL BANKING ACTIVITIES

On the integration of social risks into monetary policies and central banking activities, 32 of the central banks assessed have very limited or no progress (0-25% fulfilment against SUSREG criteria).

Notably, Germany and Italy stand out by demonstrating relatively significant progress in this area. In addition to adhering to monetary policies established by the European central bank, they have implemented the in-house credit assessment systems (ICASs) that, to some extent, consider social risks and apply socially responsible investment strategies in the management of their foreign exchange reserves.

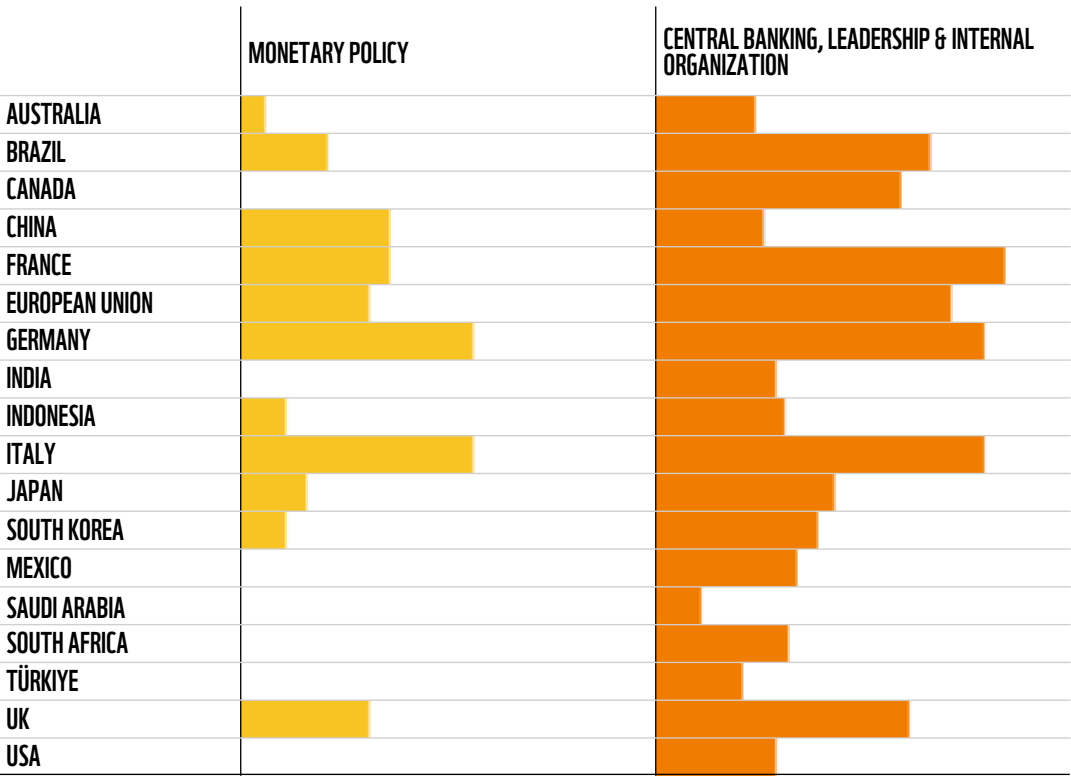


FIGURE 17: INTEGRATION OF SOCIAL RISKS INTO MONETARY POLICY & CENTRAL BANKING ACTIVITIES



THE EUROPEAN UNION, GERMANY, ITALY AND FRANCE HAVE THE STRONGEST CENTRAL BANKING ACTIVITIES AND MONETARY POLICY ON CLIMATE AND ENVIRONMENT RISKS

FIGURE 18: INDICATORS FULFILMENT PER CATEGORY IN G20 COUNTRIES*



Note: The number displayed in the table represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment and/or between investment and underwriting, the results were given equal weight. Partially met criteria allow for a 50%, while fully met criteria result in a 100% fulfillment.
 *Argentina and Russia are not shown in the table as we do not cover these countries in our assessment



- When examining the fulfillment of the central bank indicators, it is quite clear that the monetary policies are quite weak in several of the G20 countries, observing nine countries with a mere 0 – 10% fulfillment, including the USA. The countries that stand out positively are Germany, Italy as well as China.
- When it comes to the central banks’ internal organization and leadership, progress is more significant, and 13 of the 18 G20 countries assessed have more than 30% fulfillment.
- An effective internal organization and leadership is important, however, when talking about systemic change, the monetary policies affecting the larger financial network are of greater interest.

In 2019 the UK Government legislated to transition the UK economy to net-zero emissions by 2050. The Bank of England published their **Climate Transition Plan (CTP)** in July 2023. It sets out their approach to delivering the Bank’s net zero target for physical operations. The climate transition plan lays out ambitions for the bank to reduce greenhouse gas emissions from its physical operations by 90% by 2040, with interim milestones to reduce emissions every five years. For development of the carbon emissions trajectories the Bank has used the Science Based Targets methodology. In drawing together the plan, supporting processes, and documentation, the Bank has followed the recently released ISO Net Zero guidelines. The CTP Format and content have also been aligned to the draft disclosure standards set out in the UK Transition Plan Taskforce guidance.





BANCA D'ITALIA VISION ON CLIMATE AND ENVIRONMENTAL ISSUES

Banca d'Italia (BdI) plays an active role in sustainable finance through its various functions, as an investor, monetary authority, supervisor of financial intermediaries and research institute, as well as a large enterprise (almost 7,000 employees). Its contributions include public discussion and research-based analyses to improve understanding and to raise awareness of the importance of measuring and managing sustainability profiles when intermediaries, investors and policymakers make decisions that could significantly shape the direction and speed of the ecological transition.

BdI is aware that the path set out for environmental and energy transition is complex, as social, environmental and governance profiles must be assessed together because they are closely interconnected, and at the same time they present several trade-offs. Although the transition is an essential step for a sustainable long-term economic growth, this transformation could displace entire economic sectors, with negative consequences for growth and employment. BdI strives to help to identify policy choices that, on the one hand, minimize the negative effects on people, intermediaries and firms.

To embed these issues in a consistent strategic framework covering institutional functions and its own operations, BdI has included a set of Environmental Actions in its Strategic Plan for 2023-25^[1], a document that defines BdI's vision and objectives and devises specific action plans. One of the five key strategic objectives in the plan is to support the energy transition and protect the environment.

To pursue this objective, the Strategic Plan articulates two action plans. The first, "Promoting sustainable finance and fighting climate change" is in turn articulated in 5 lines of action: 1) advance research collaborating with key institutions, research centres and universities; 2) further progress the sustainable investment strategy in its own funds toward decarbonization via corporate dialogue on transition plans and green solutions; 3) actively supervise financial intermediaries to promote the incorporation of climate and environmental issues in the risk management and to improve market disclosure; 4) develop financial education initiatives to improve the financial literacy of SMEs and households on environmental and sustainability issues; 5) strengthen the coordination of the domestic and international activities, leveraging on the collaboration with external bodies (in particular NGFS) also in light of the 2024 G7 Italian Presidency.



The second action plan, "Towards the net zero goal: the reduction of emissions of greenhouse gases and environmental footprint" is aimed at reducing the BdI's own environmental footprint; it is also meant to help the Bank understand the difficulties of the transition towards net zero by experimenting them in practice. It is articulated in 9 lines of action: 1) improve the energy performance of BdI office buildings and plants; 2) reduce the share of fossil fuels for heating; 3) increase the share of self-produced electricity from renewables; 4) optimize the energy management of buildings through automatic solutions; 5) adopt low-impact IT solutions (green ICT); 6) reduce the carbon and environmental footprint of the banknote life cycle; 7) encourage sustainable mobility and smart working; 8) offset of BdI emissions and promoting biodiversity through direct reforestation interventions and the purchase of carbon credits on verified voluntary markets; 8) increase staff awareness and training and foster cooperation with other institutions on environmental issues; 9) strengthen sustainability reporting, with an integrated corporate disclosure and selected performance indicators.

[1] [Bank of Italy Strategic Plan for 2023-25](#)



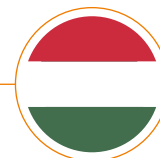
CASE STUDY OF COUNTRIES WITH COMMENDABLE EFFORTS IN SUSTAINABLE MONETARY POLICIES AND CENTRAL BANKING ACTIVITIES

THE EUROSISTEM



- The European Central Bank (ECB) has decided to include climate change considerations in the Eurosystem's monetary policy framework. It decided to adjust corporate bond holdings, collateral framework, disclosure requirements and risk management practices.
- The Eurosystem aims to gradually decarbonise its corporate bond holdings, on a path aligned with the goals of the Paris Agreement.
- The Eurosystem will limit the share of assets issued by entities with a high carbon footprint that can be pledged as collateral by individual counterparties when borrowing from the Eurosystem.
- A few member countries of the Eurosystem also have their own in-house credit assessment systems (ICAS) that integrates E&S risks as part of the eligibility assessment of collateral in the Eurosystem monetary policy operations
- The Eurosystem aims to start making annual climate-related disclosures for the non-monetary portfolios within the next two years, using the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

HUNGARY



- In 2019, the MNB was among the first central banks to decide to construct a portfolio of green bonds within its foreign exchange reserves.
- The MNB formulated its Green Monetary Policy Toolkit Strategy in 2021. In line with this, the MNB has already taken steps to address climate risks in the short term by launching the Green Mortgage Bond Purchase Programme.
- The MNB has also assessed the climate change risks in its collateral management framework.
- To further encourage green mortgage lending, the MNB will launch the Green Home Programme in October 2021 with a total limit of HUF 200 billion as part of the Funding for Growth Scheme – FGS.
- In 2022, the MNB prepared its first disclosure based on the TCFD framework.
- The MNB also analysed the climate risk exposure of its financial asset portfolios based on climate transition risks (Weighted Average Carbon Intensity (WACI)) and physical risks.

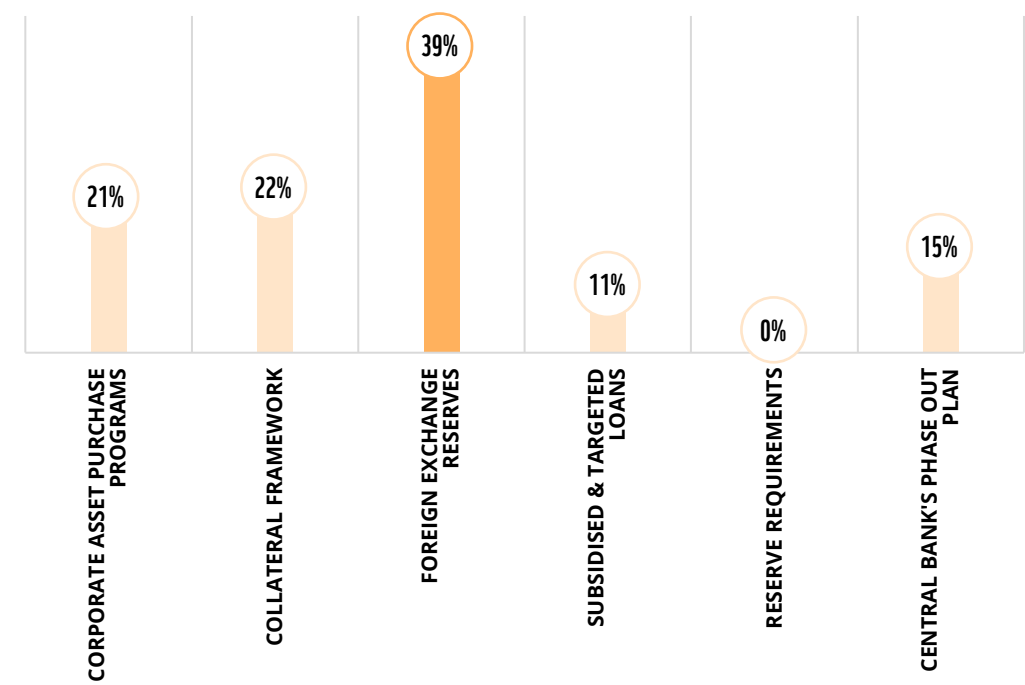
UK



- In November 2021, the Bank published a comprehensive framework to greening its CBPS portfolio. Within this, the Bank announced an overall commitment to achieve net-zero GHG emissions associated with the CBPS portfolio by 2050. The Bank also set an interim target – to reduce the WACI of the portfolio by 25% by 2025 compared to 2020.
- The CBPS's collateral framework also takes climate considerations into account and has incorporated climate-related questions into the due diligence questionnaires for loan collateral.
- The WACI of the sovereign assets held by the APF has fallen from 218 to 208 tonnes of CO₂ equivalents per £mn GDP (tCO₂e/£mn GDP) year on year in their 2022 disclosure.
- In April 2019, the BoE took the decision to publish a disclosure in line with the TCFD recommendations to promote transparency around the Bank's exposure to, and management of, climate risks.

THE INTEGRATION OF CLIMATE AND ENVIRONMENTAL RISKS INTO MONETARY POLICY AND CENTRAL BANKING ACTIVITIES IS MUCH LESS EXTENSIVE COMPARED TO BANKING SUPERVISION

FIGURE 19: KEY INDICATORS ASSESSMENT OF CENTRAL BANKING – ACHIEVEMENT OF 45 COUNTRIES



Note: The number displayed on the graph represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment, the results were given equal weight. Partially met criteria allow for a 50%, while fully met criteria result in a 100% fulfillment.

CORPORATE ASSET PURCHASE PROGRAMS:

The central bank can utilize its corporate asset purchase program by taking into account E&S considerations in the selection of eligible assets and counterparties. This is present widely in the European Union as executed by the ECB, but not well present in other countries. Note that not all central banks have corporate asset purchase program in place.

COLLATERAL FRAMEWORK:

A central bank can use its collateral framework to support climate action by incorporating climate risk considerations into the eligibility criteria for the collateral it accepts from financial institutions. From our assessment, central banks in the Eurosystem, UK, Hong Kong, and China take E&S considerations fully or partially into account in their collateral framework.

- The Eurosystem aims to gradually decarbonise its corporate bond holdings, on a path aligned with the goals of the Paris Agreement.** To that end, the Eurosystem will tilt these holdings towards issuers with better climate performance through the reinvestment of the sizeable redemptions expected over the coming years. Better climate performance will be measured with reference to lower greenhouse gas emissions, more ambitious carbon reduction targets and better climate-related disclosures.
- The Eurosystem will limit the share of assets issued by entities with a high carbon footprint that can be pledged as collateral by individual counterparties when borrowing from the Eurosystem.** At first, the Eurosystem will apply such limits only to marketable debt instruments issued by companies outside the financial sector (non-financial corporations). Additional asset classes may also fall under the new limits regime as the quality of climate-related data improves. The measure is expected to apply before the end of 2024 provided that the necessary technical preconditions are in place.

SUSREG 2023

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FOREIGN EXCHANGE RESERVES:

Foreign exchange reserve management is among the common way that central banks do in greening their portfolio. 24 central banks have disclosed a policy to integrate E&S considerations, either implicitly or explicitly, in the management of its foreign exchange reserves.



SUBSIDIES & TARGETED LOANS:

A central bank can use green targeted lending as a tool to support climate action by incentivizing and directing financial institutions toward environmentally sustainable and climate-friendly investments. However, only 7 central banks offer subsidised loans or preferential targeted refinancing lines based on E&S considerations.



RESERVE REQUIREMENTS:

The reserve requirements can be adjusted to provide incentives and penalties which involve lower mandatory reserve rates for green assets and higher rates for those tied to brown assets. This tool has not been applied by any central banks assessed.



CENTRAL BANK'S PHASE OUT PLAN:

The phase-out of harmful activities from a central bank's investment portfolio involves a deliberate and systematic process of divesting from assets or activities that have negative environmental and social impacts. 9 central banks have a phase-out plan on assets linked to the most-environmentally harmful activities in place.



The People's Bank of China (PBoC) and Bank of Japan have shown commendable efforts through their targeted green loan. **The PBOC through the relending program has disbursed \$41bn^[1] to provide cheaper funding to banks for green projects** and at the same time promotes information disclosure by lender. **Bank of Japan in 2021 rolled out a funding scheme of a total \$26bn of zero-interest loans^[2] targeting activities aimed at combating climate change.**

In 2023, the **Bank of Slovenia** decided to update and considerably **tighten the criteria for excluding companies from the list of eligible issuers** by following EU Paris-aligned benchmark recommendations as much as possible, taking also into account data quality and availability. Following these recommendations, the bank will discontinue investing in carbon-intensive companies which earn more than (i) 10% of their revenue from fossil fuels in general, (ii) 1% of their revenue from coal operations, (iii) 10% of their revenue from oil operations, (iv) 50% of their revenue from natural gas operations, or (v) 50% of their revenue from the generation of electricity from fossil fuels with a GHG intensity above 100g CO₂e/kWh. Additionally, the bank will discontinue investing in companies from carbon intensive sectors that do not report these data.

[1] PBOC's Yi Says Funding for Green Loans at 300 Billion Yuan

[2] BOJ to conduct annual survey on climate finance to nurture ESG market



BANQUE DE FRANCE (BdF) IS PHASING OUT COAL AND FOSSIL FUEL EXTRACTION FROM ITS PORTFOLIO

The Banque de France (BdF) has decided^[1] to exclude any company working on new fossil fuel extraction projects from its portfolios^[2]. The announcement was made following the BdF plan to step up efforts to align all equity components with a climate warming trajectory of 1.5°C. Having successfully aligned all equity components with a climate warming trajectory of below 2°C by the end of 2021, the Banque de France aims to achieve this new goal by the end of 2023 for the equities in their own portfolio and the European equities of the pension liabilities portfolio. For all remaining equities, the deadline for alignment is set for the end of 2025.

This requirement^[3], scheduled to take effect starting from the end of 2024, also aims to ensure conformity with the assumptions made by the Intergovernmental Panel on Climate Change (IPCC) and the International Energy Agency (IEA). To implement these exclusions, the BdF employs the data provided by Moody's ESG and S&P Global Sustainable and on the data available to its asset management subsidiary, BdF Gestion (ISS and market intelligence).

In early 2021, BdF announced that it had already divested from companies where coal represents more than 10% of turnover for its own funds and pension liabilities portfolios^[4] as part of its responsible investment policy. This threshold was further reduced to 2% by the end of 2021 and will be ultimately brought down to 0% by the end of 2024, stressing BdF commitment to exclude all companies regardless of the size of their coal-related activities by the end of 2024. This ambitious timeline sets the bank apart from the global "consensus," which generally targets 2030 for Europe and 2040 for the rest of the world to achieve similar goals.

BdF also set a course to align itself with the Paris Aligned Benchmark (PAB) regarding oil and gas investments. As part of this alignment, the bank has initiated a withdrawal from non-conventional hydrocarbons starting in 2021 and will exclude companies for which oil accounts for more than 10% of turnover and gas for more than 50% by 2024.

[1] [Responsible investment: the Banque de France steps up its climate commitments](#)

[2] [Exclusions apply to direct investments and funds managed by its asset management subsidiary, BdF Gestion](#)

[3] [Banque de France Responsible Investment Report 2022](#)

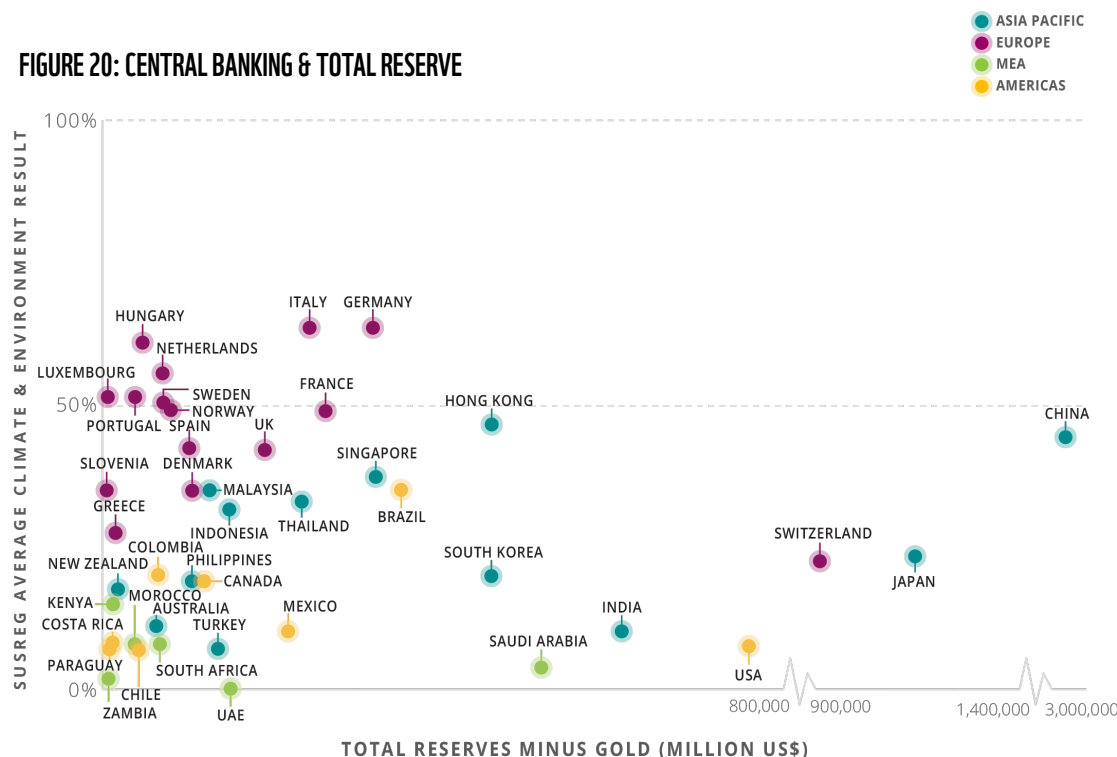
[4] [Responsible investment policy: reinforcing exclusions with regard to fossil fuels](#)

BANQUE DE FRANCE
EUROSYSTEME



COUNTRIES WITH THE LARGEST RESERVES HAVE NOT GREENED THEIR MONETARY POLICY AND CENTRAL BANKING ACTIVITIES ADEQUATELY

FIGURE 20: CENTRAL BANKING & TOTAL RESERVE



Source: Total reserve data was taken from the World Bank (2022)

Note: Total reserves minus gold comprise special drawing rights, reserves of IMF members held by the IMF, and holdings of foreign exchange under the control of monetary authorities. Gold holdings are excluded.

- The greening of central banks' portfolios has the potential to significantly impact the transition to a sustainable financial system, given the substantial size of their balance sheets and total reserves. Beyond direct consequences, there are notable signaling implications for market players.
- Countries with large amounts of FX and gold reserves like China, Japan, Switzerland and the US have the power to influence the flow of financial capital through their monetary and non-monetary portfolio.
- The PBoC in 2021 has expanded the eligible collateral universe to include green bonds, bonds issued by SMEs, and bonds issued by agricultural corporations. However, this can be further amplified through other monetary policy toolkits including greening their asset purchase program foreign exchange reserve, and reserve requirement.
- A recent study examining the Swiss National Bank (SNB)'s collateral framework has unveiled a significant finding: the SNB's instruction sheet on collateral eligible for SNB repos does not explicitly incorporate criteria related to climate, biodiversity, or deforestation aspects^[1]. This is unfortunate considering Switzerland's position as the world's third-largest holder of reserves.

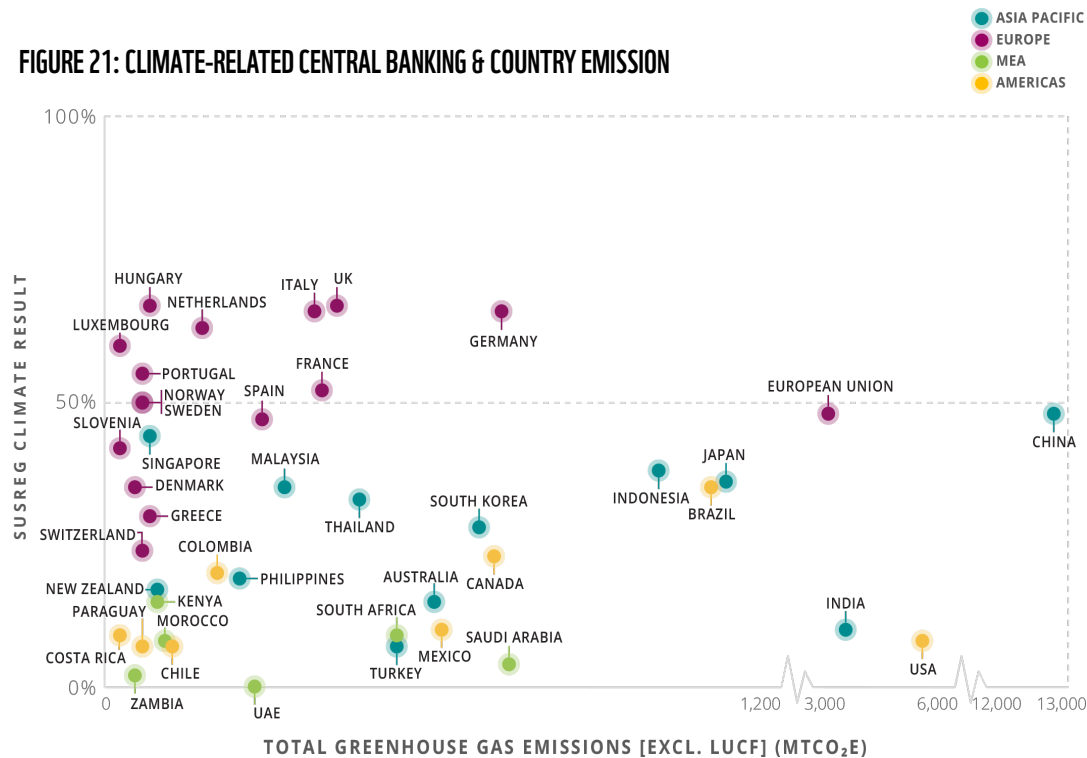
The Dutch Central Bank (DNB) was the first central bank to sign the UN Principles for Responsible Investment (UN PRI) in March 2019. Since then, the central banks in the UK, France and Philippines have also become signatories, establishing responsible investment frameworks for their balance sheets and reserves.^[2]



[1] How snb's collateral framework is contributing to a hotter world

THE INTEGRATION OF CLIMATE-RELATED RISKS INTO MONETARY POLICY AND CENTRAL BANKING ACTIVITIES IS ALMOST NON-EXISTENT IN SOME OF THE HIGHEST-EMITTING COUNTRIES

FIGURE 21: CLIMATE-RELATED CENTRAL BANKING & COUNTRY EMISSION



Source of country 2022 emission: The World Bank
 Note: Total greenhouse gas emissions in kt of CO₂ equivalent are composed of CO₂ totals excluding short-cycle biomass burning (such as agricultural waste burning and savanna burning) but including other biomass burning (such as forest fires, post-burn decay, peat fires and decay of drained peatlands), all anthropogenic CH₄ sources, N₂O sources and F-gases (HFCs, PFCs and SF₆). This series excludes Land-use Change & Forestry (LUCF).

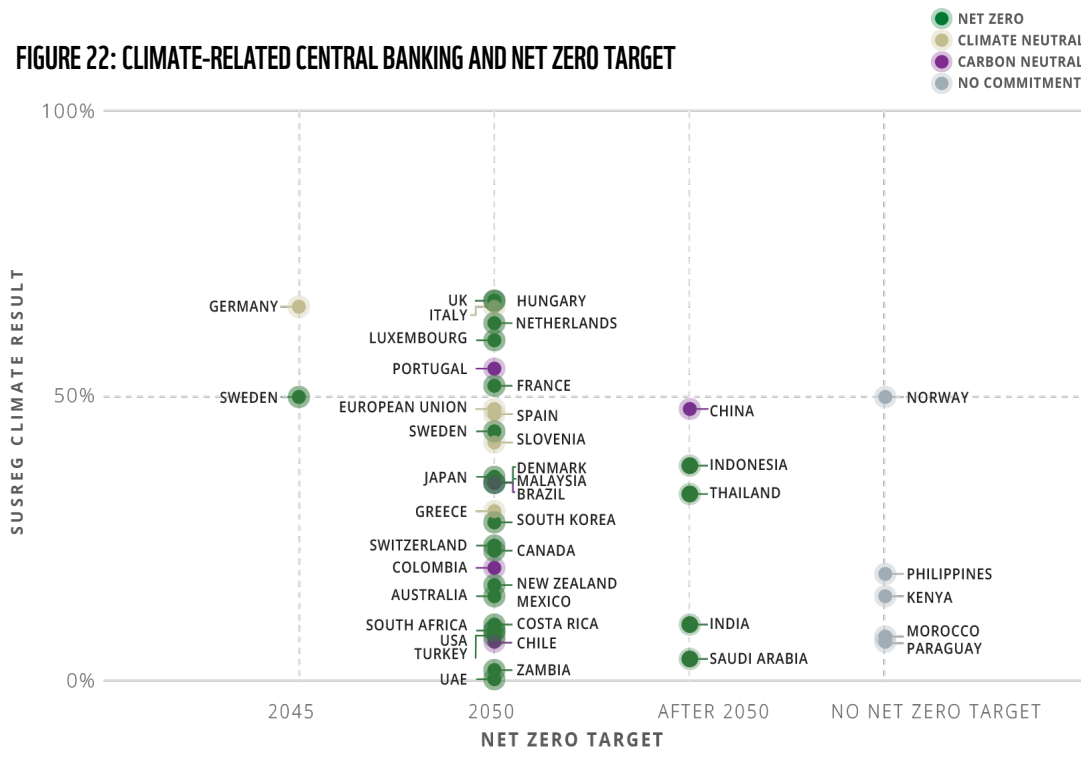
- Given the pivotal role that central banks play as asset managers, it becomes imperative for them to incorporate climate risk considerations into both their monetary and non-monetary portfolio management strategies.
- Despite the growing recognition of the importance of addressing climate risk by central banks around the world, some top high-emitting countries, like India and the USA, have faced challenges in fully embracing this integration. This is often due to various factors, including political resistance, economic dependencies on high-emission industries, and differing priorities.
- However, it's crucial to emphasize that climate change is a global challenge that affects every nation, regardless of its emissions profile. Delaying action or neglecting climate risk can have severe consequences, not only for the environment but also for economic, financial and price stability.
- Central banks in high-emitting countries, must recognize the importance to incorporate climate risk considerations into their monetary policies and other central banking activities as it is in their long-term economic interest to do so.

The Bank of England since 2019 has collected climate-related information in its due diligence questionnaires for their collateral holding, covering how lenders are adapting their strategies, risk management frameworks and valuation methods to account for climate risks across the asset classes that are prepositioned with them.



IN MOST COUNTRIES ACROSS ASIA, AFRICA, AND LATIN AMERICA, CENTRAL BANKS HAVE YET TO ALIGN THEIR ACTIVITIES WITH THE NATIONAL NET-ZERO GOALS

FIGURE 22: CLIMATE-RELATED CENTRAL BANKING AND NET ZERO TARGET



Note: Although Norway has not formally adopted a net-zero target, the country has established a goal to reduce its greenhouse gas emissions by 90 to 95 percent by the year 2050, compared to emission levels in the reference year 1990.

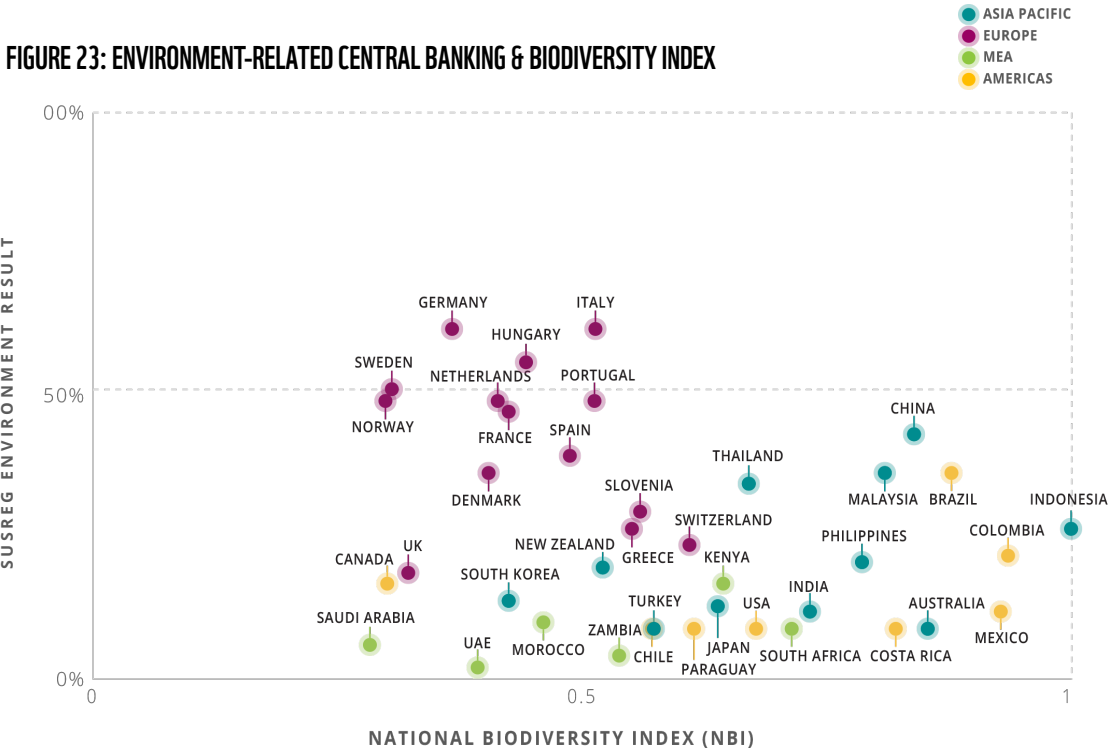
- To successfully achieve the net-zero target, it is essential to adopt a comprehensive, whole-of-society approach, which should encompass central banks as leaders in the financial sector, actively participating in this endeavor.
- Unfortunately, in a significant number of countries spanning Asia, Africa, and Latin America, central banks have yet to align their central banking activities with their respective national net-zero targets.
- One possible contributing factor to this discrepancy is that only a limited number of central banks have explicitly incorporated sustainability objectives into their mandates. These mandates serve as guiding principles for central bank policymaking and delineate the roles governments expect them to fulfill.
- However, neither price stability nor financial stability can be delivered effectively without a consideration of the far-reaching consequences of climate change. Climate change exerts a pervasive influence on the global economy, making it impossible to ensure price and financial stability without accounting for its implications.

*The **Hong Kong Monetary Authority (HKMA)** continues to measure the weighted average carbon intensity (WACI), expressed as tCO₂ e11/US\$ million revenue, for the Exchange Fund's portfolios in line with industry practice. Scope 3 emissions are excluded due to the high data uncertainty and lack of a consistent methodology for measurement, rendering them prone to double or even multiple counting. Monitoring of emissions from public equities portfolios is given priority due to the more consistent measurement and disclosure practices in the market.*



CENTRAL BANKS IN THE TOP 10 COUNTRIES WITH THE HIGHEST NATIONAL BIODIVERSITY INDICES HAVE YET TO INCORPORATE NATURE CONSIDERATIONS IN THEIR CENTRAL BANKING ACTIVITIES

FIGURE 23: ENVIRONMENT-RELATED CENTRAL BANKING & BIODIVERSITY INDEX



Source of National Biodiversity Index: Convention on Biological Diversity (CBD)
 Note: The National Biodiversity Index (NBI) is based on estimates of country richness and endemism in four terrestrial vertebrate classes and vascular plants; vertebrates and plants are ranked equally; index values range between 1.000 (maximum: Indonesia) and 0.000 (minimum: Greenland, not shown in table). The NBI includes some adjustment allowing for country size. Countries with land area less than 5,000 sq km are excluded. Overseas territories and dependencies are excluded from this column.

Despite theoretical and empirical studies underscoring the significant impact and interdependence of nature-related risks with the financial system, the practical integration of these factors into central banking activities remains a formidable challenge.

The central banks in the top 10 countries with the highest national biodiversity indices have yet to incorporate nature-related considerations into their monetary policy and central banking activities in a significant manner.

This can be attributed to several key challenges^[1]:

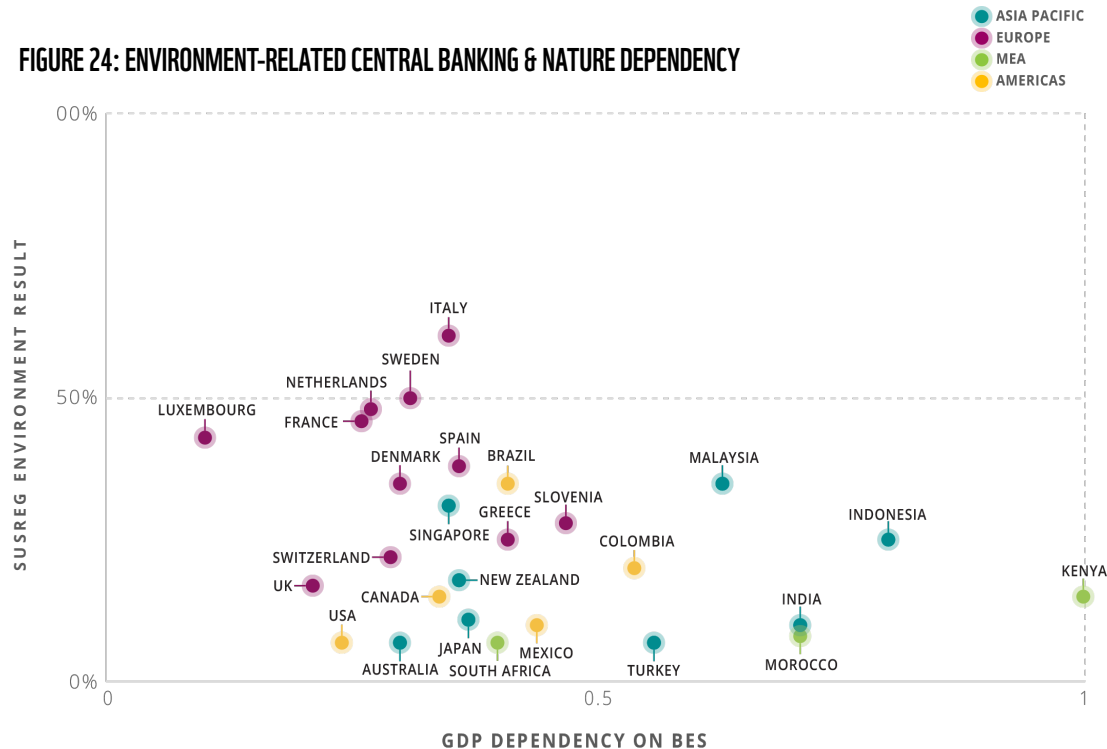
- **Nature-Related Risk Complexity:** Nature-related risk encompasses the entire biophysical environment and defies reduction to a singular metric, unlike the relatively straightforward greenhouse gas emissions used to assess climate risk.
- **Localized nature:** Nature loss tends to be more localized and context-specific compared to the more global nature of climate change, necessitating the collection of more detailed and granular data.
- **Lack of Awareness:** There is a notable lack of awareness regarding the broader spectrum of nature-related risks and the intricate interplay between nature and climate.

The Norges Bank Investment Management (NBIM) of Norway in their investment of pension fund has divested from 4 companies in 2022 following their assessment of biodiversity and ecosystems degradation. The NBIM also plan a thematic dialogue with 12 mining companies on their operations in sensitive areas with high biodiversity values.

[1] Building blocks for central banks to develop nature scenarios, INSPIRE

DESPITE THEIR STRONG RELIANCE ON NATURE, MOST COUNTRIES HAVE YET TO INCORPORATE NATURE-RELATED RISKS INTO THEIR MONETARY POLICY AND CENTRAL BANKING ACTIVITIES

FIGURE 24: ENVIRONMENT-RELATED CENTRAL BANKING & NATURE DEPENDENCY



Source: Biodiversity and Ecosystems Services (BES) Index: measuring the value of nature by Swiss RE
Note: Country specific export-import relations, respectively cross-country input output tables connected to all BES in scope, to unfold dependencies on BES in other countries, were not available yet and hence not taken into account in the calculation of GDP dependency on BES

- The alarming loss of nature presents a profound threat to humanity, the economy, and the stability of the financial system, given that our economic framework relies fundamentally on nature. Consequently, central banks and regulators must assess the extent of the economy and financial system's susceptibility to this environmental degradation.
- Across the globe, central banks such as the Banque de France, De Nederlandsche Bank (DNB), the European Central Bank (ECB), Bank Negara Malaysia (BNM), Banco Central do Brasil and Banxico (Mexico) have undertaken analyses to assess the impact and dependency of the financial system to nature.
- The ECB, for instance, scrutinized 4.2 million individual companies, representing a €4.2 trillion in corporate loans, revealing that nearly 75 percent of all bank loans in the euro area are extended to companies heavily reliant on at least one ecosystem service.
- At a country level, a significant number of developing countries in Asia and Africa's GDP are highly dependent on Biodiversity and Ecosystem Service (BES). Unfortunately, despite this strong reliance on nature, most countries have yet to incorporate broader environmental and nature-related risks into their monetary policy and central banking activities.
- It's important to note that this dependency data does not encompass export-import relationships. Therefore, the GDP dependency on BES may be underestimated for countries with a significant reliance on imported BES. On 29 June 2023, the European Union Regulation on Deforestation-free Products (EUDR) entered into force^[1]. Companies placing or exporting the affected products in or from the EU market will have to conduct due diligence to confirm that the products have not been sourced from land which was deforested or degraded after 31 December 2020.

The Banque de France has started integrating biodiversity indicators in its disclosure of its own & pension fund portfolios under their Responsible Investment report. The BdF disclosed impact indicators such as the total absolute biodiversity impact, biodiversity footprint, and weighted average biodiversity intensity of their equity portfolio.



[1] European Union Regulation on Deforestation-free Products (EUDR)



THE CENTRAL BANK OF MEXICO ASSESSED THE DEPENDENCIES AND IMPACTS OF THE MEXICAN BANKING SECTOR ON ECOSYSTEM SERVICES

A study exploring “Dependencies and impacts of the Mexican banking sector on ecosystem services”^[1] was presented during the panel session on “Financing to communities for the conservation and restoration of biodiversity” seminar^[2] held by Banco de México (Banxico) in June 2023. Aside from the interconnectedness, it also focused on identifying exposure and possible economic risks related to biodiversity loss in the Mexican banking system.

The study employs the ENCORE database to assess the correlation between funded economic activities and their impact on the environment. On top of that, to map the possible exposure, it utilizes temporal variation of the Natural Capital Index (NCI) data from 1985 to 2021. This data is employed to detect significant changes in natural capital as well as identify the geographical location of ecological degradation. It is further overlaid with operational banking information data, which includes (i) credit registry containing all commercial credits issued by commercial banks, development banks, SOFOMES^[3], and government investment funds specialized in economic development, and (ii) the securities holdings (including sovereign and corporate

bonds) of commercial banks, development banks, brokerage houses, insurance companies and pension funds.

According to findings from the ENCORE, a significant portion of banks' credit portfolio in Mexico is highly or very highly dependent on nature and its ecosystem services. This exposure makes it vulnerable to physical risks stemming from biodiversity loss and ecosystem degradation. On the other estimation, it is also found that an important share of the credit portfolio has a high or very high impact category on ecosystem services, and it is therefore subject to transition risks.

The research also identifies the exposures in municipalities with a relatively high or low Natural Capital Index in Mexico. It is found that the municipalities in the lowest NCI quartile receive the most significant amount of credit, accounting for approximately 50% of the total loans granted while municipalities with the highest NCI have the least amount of credit, receiving less than 10% of the total loans. Municipalities in the lowest NCI level, however, possess a substantial and diverse credit portfolio with the largest portions of this credit are

directed towards construction, mining, utilities, public administration, and financial services. This observation holds significance as the construction sector is associated with land use changes, a primary driver of biodiversity loss.

Credit transactions are also evident in municipalities that encompass Natural Protected Areas (NPA), although it should be highlighted that certain municipalities have a larger territorial extension compared to the NPA. This indicates that loans and investments are not necessarily exclusively utilized within the confines of NPAs. The key takeaway is not to outrightly ban credit in these protected zones but to emphasize the necessity of a close and diligent monitoring of banks' lending activities to prevent negative environmental effects.

[1] [Dependencies and impacts of the Mexican banking sector on ecosystem services](#)

[2] [Seminar on Financing to communities for the conservation and restoration of biodiversity](#)

[3] The Sociedades Financieras de Objeto Múltiple are regulated financial intermediaries in Mexico, specialised in credits and financial leasing.





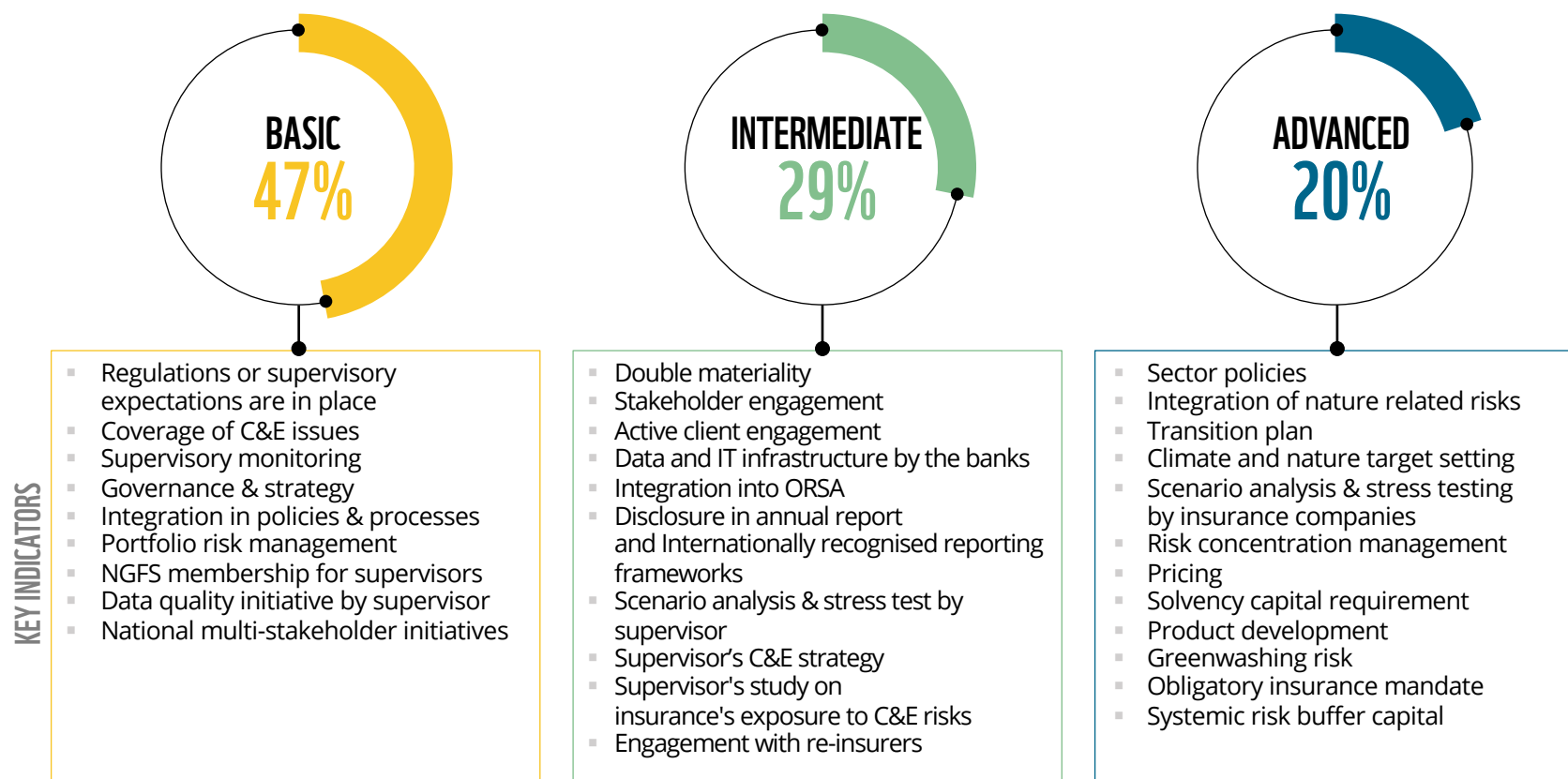
INSURANCE SUPERVISION





OVERALL, LESS THAN HALF OF THE BASIC INDICATORS, AND EVEN FEWER FOR INTERMEDIATE AND ADVANCED INDICATORS FOR CLIMATE AND ENVIRONMENT, ARE FULFILLED

FIGURE 25: SUSREG INSURANCE SUPERVISION INDICATORS PROGRESS FOR CLIMATE & ENVIRONMENT ACROSS THREE DISTINCT CATEGORIES



Note: The number displayed in the graph represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment and/or between investment and underwriting, the results were given equal weight. Partially met criteria allow for a 50%, while fully met criteria result in a 100% fulfillment.

- The SUSREG assessment involves the tracking of indicators grouped into three distinct categories: basic, intermediate, and advanced.
- It is worth noting that the level of achievement of the basic indicators is 47%. This indicates that less than half of the said basic indicators are reflected in the supervisory expectations related to the inclusion of climate and environmental (C&E) risks into the strategies, governance structures, policies, processes, and portfolio management of the insurance companies.
- However, when we move to the intermediate indicators, we observe a large drop to 29%. In terms of the advanced indicators, a further drop is observed and only 20% of the expectations have been fulfilled.
- This suggests that, on average, insurance supervisors often address the general topics (basic) but may miss the specifics related to insurance. For some countries, this could notably be due to the fact that the financial regulator sets general expectations to be applied by both insurance companies and banks.



INSURANCE SUPERVISION OF CLIMATE RISK IS STRONGER THAN BROADER ENVIRONMENTAL AND SOCIAL RISKS. HOWEVER, MOST CLIMATE REGULATORY FRAMEWORKS STILL LACK IMPORTANT ELEMENTS

Compared to environment and social risks, climate related risks are most frequently considered by insurance supervisors. Nevertheless, no country shows a fulfilment higher than 75% and only 11 out of 43 countries fulfil higher than 50%. This indicates that despite climate risk being generally considered by supervisors, most regulatory frameworks are still missing important elements.

14 countries exhibit notably very low levels of achievement, with less than 25% compliance with key SUSREG criteria.

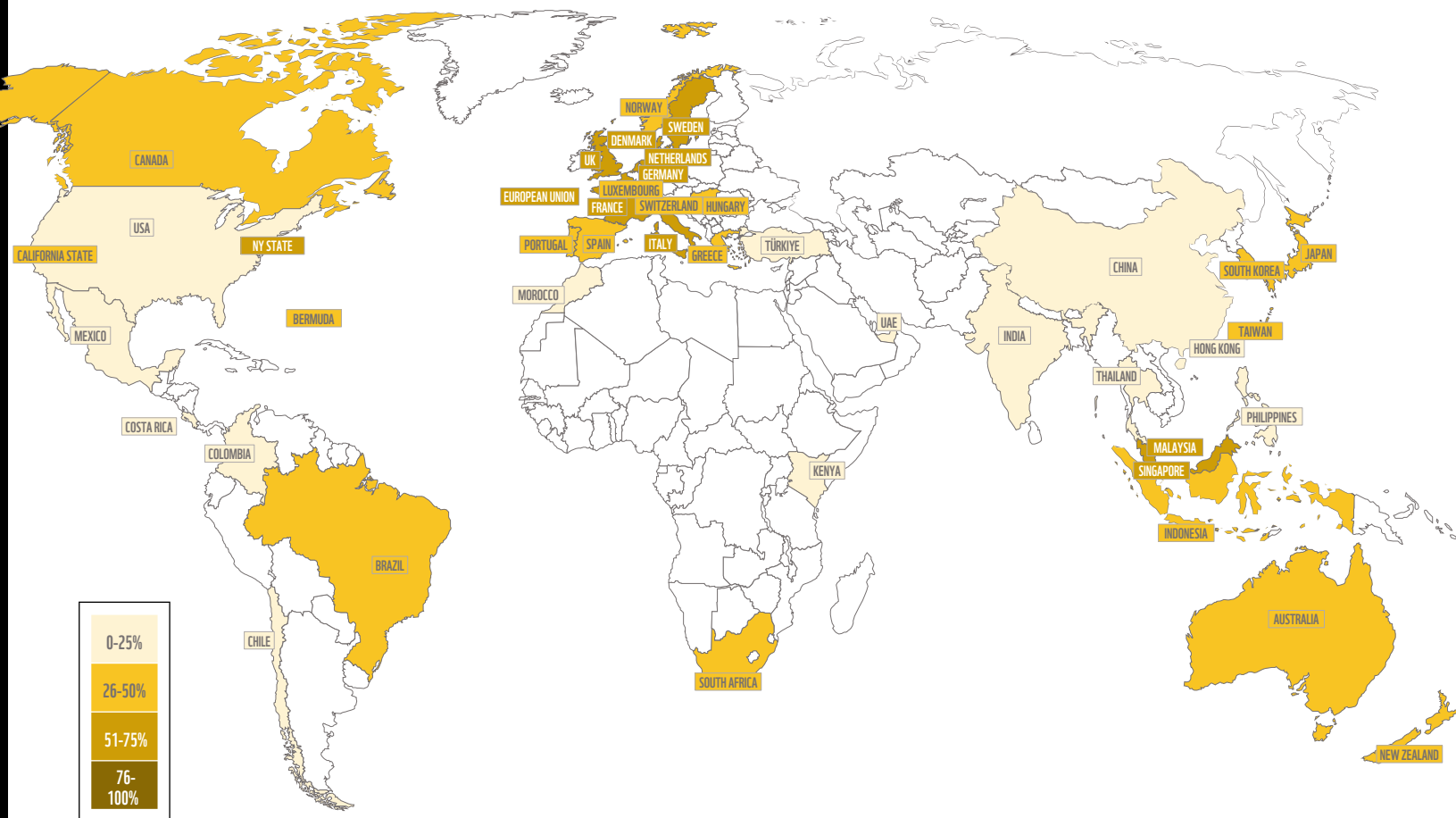
Note:

* The results shown throughout the report is derived from select indicators within the SUSREG assessment, with greater weightage given to indicators that carry more significant impact. Insurance supervision, supervisors' internal leadership, and enabling environment are given weight of 76%, 10%, and 14% respectively. It's important to note that SUSREG is not intended to serve as a ranking tool for countries; rather, the result shown is designed solely to analyze the level of progress in the countries assessed. We recognize that each country faces unique challenges and circumstances that cannot be fully captured by the result.

**For simplification purpose, we use the term 'countries' throughout; however, it also refers to jurisdictions such as California, New York, Hong Kong, Taiwan, and the European Union, all of which fall under the scope of SUSREG assessment



FIGURE 26: INTEGRATION OF CLIMATE-RELATED RISKS INTO INSURANCE SUPERVISION





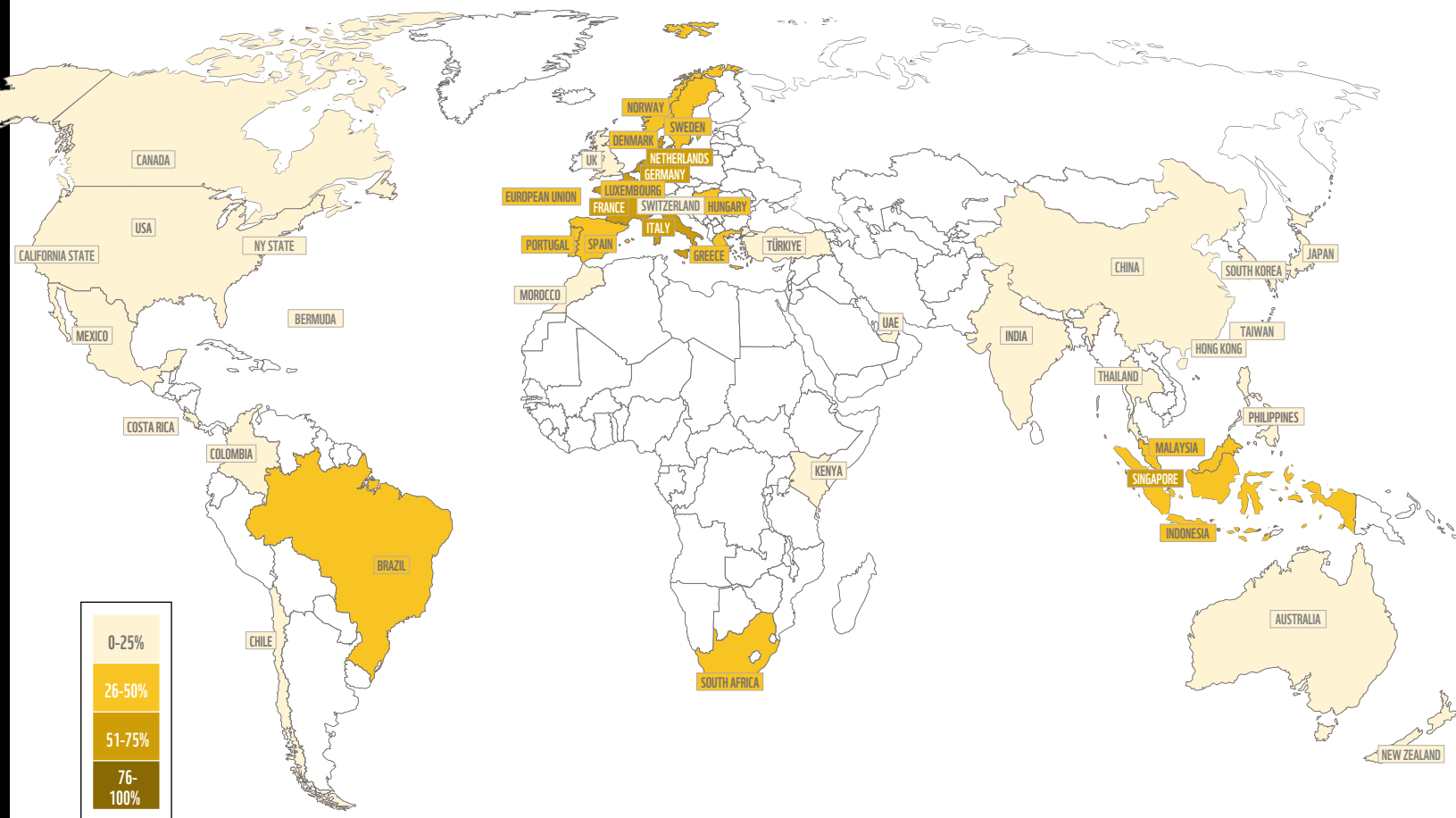
INSURANCE SUPERVISION ADDRESSING ENVIRONMENTAL RISKS IS VERY WEAK, WITH 25 COUNTRIES HAVING ALIGNMENT TO SUSREG ENVIRONMENTAL CRITERIA BELOW 25%

Environment-related indicators have a significantly lower implementation rate in comparison with climate. This indicates that supervisors do not account the same importance for broader environmental risk as climate risk. One of the reasons for this result could be the lack of guidance and framework broader environmental risk outside climate. More than 25 countries fulfil less than 25%, which indicates generally very low expectations.

There is a deep interconnectedness among nature, humanity, and climate. Thus, neglecting broader environmental risks will also impact negatively on the achievement of the global climate goal.



FIGURE 27: INTEGRATION OF ENVIRONMENT-RELATED RISKS INTO INSURANCE SUPERVISION





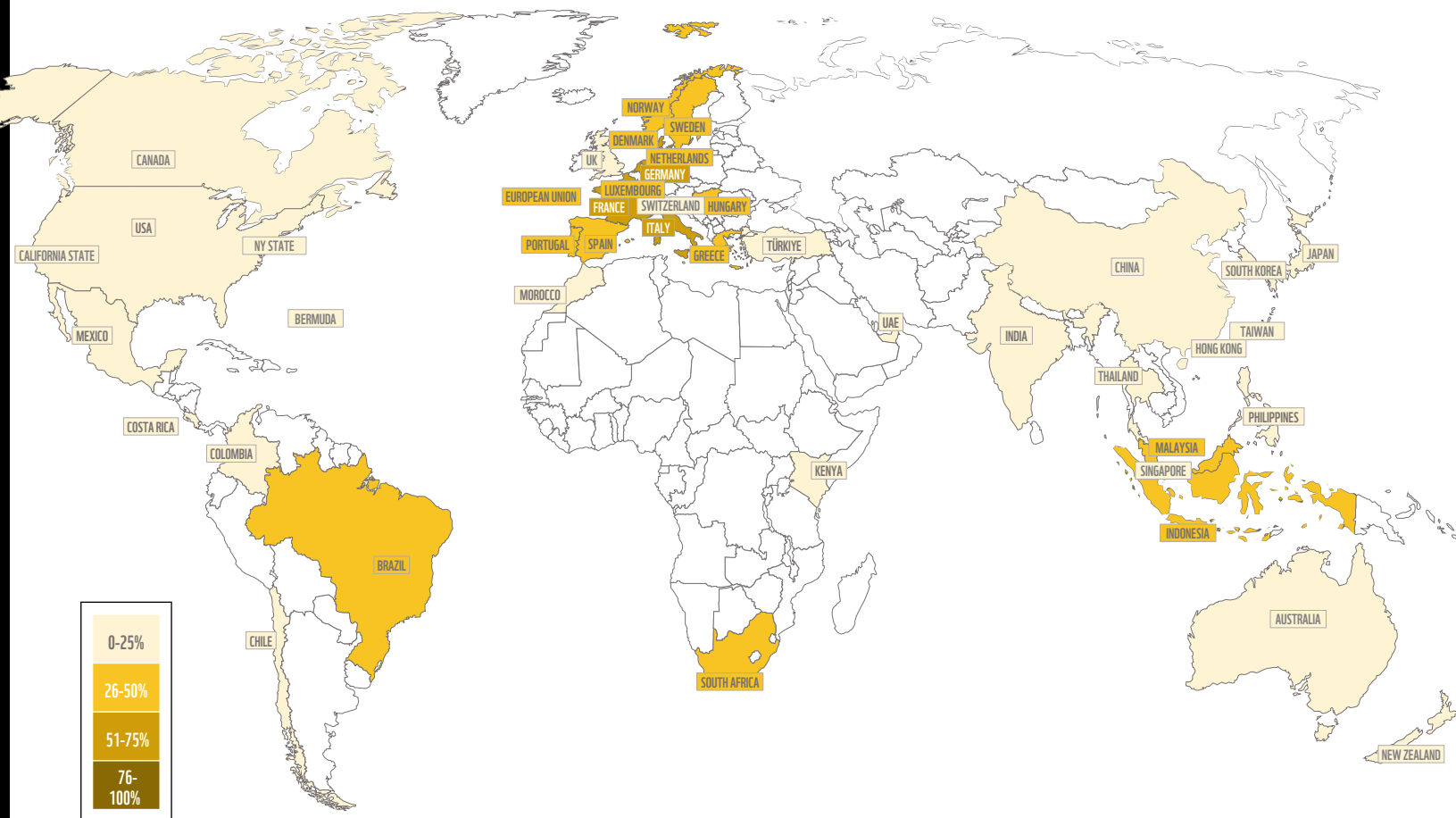
LIKE ENVIRONMENTAL ASPECTS, INSURANCE SUPERVISION ADDRESSING SOCIAL RISKS ARE VERY WEAK ACROSS COUNTRIES, WITH 26 COUNTRIES HAVING ALIGNMENT WITH SUSREG SOCIAL CRITERIA BELOW 25%

Social indicators also shows notably very low achievement rate. Only 3 countries fulfilled more than 50%. In general, the most advanced countries for social issues are to be found in the EU due to the regulation by EIOPA that includes social risk into consideration.

26 out of 43 countries assessed have alignment to SUSREG social criteria below 25%.



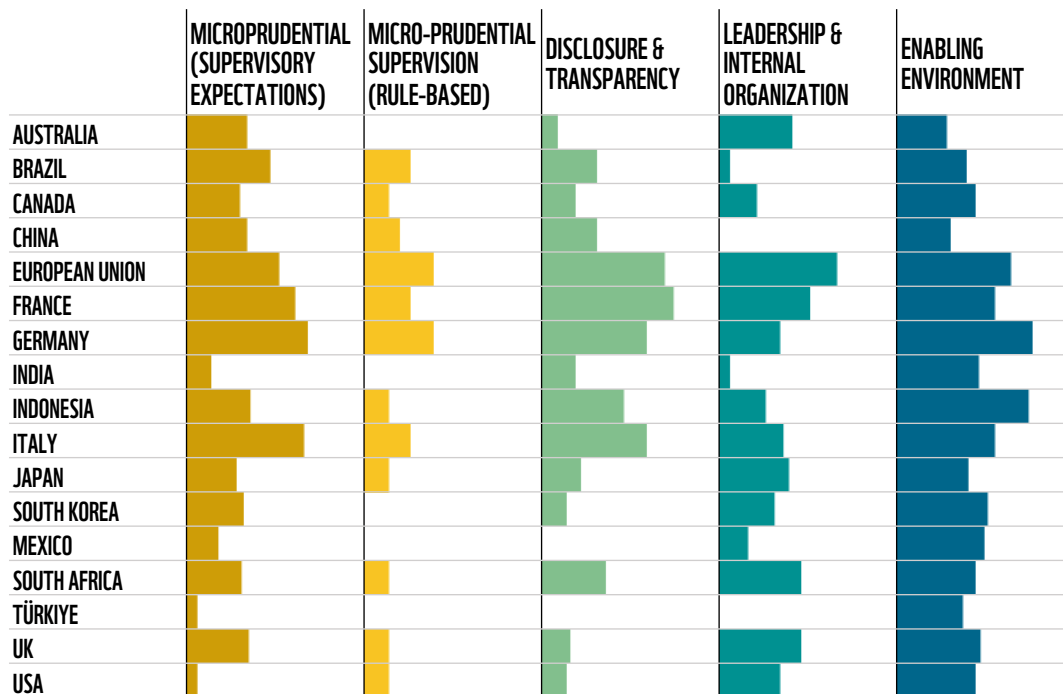
FIGURE 28: INTEGRATION OF SOCIAL-RELATED RISKS INTO INSURANCE SUPERVISION





G20 COUNTRIES INSURANCE SUPERVISION IS VERY CONTRASTED, WITH SIGNIFICANT SHORTFALLS FOR RULE-BASED MICRO AND MACROPRUDENTIAL SUPERVISION

FIGURE 29: INDICATORS FULFILMENT PER CATEGORY IN G20 COUNTRIES*



Note: The number displayed in the table represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment and/or between investment and underwriting, the results were given equal weight. Partially met criteria allow for a 50%, while fully met criteria result in a 100% fulfilment.

*Argentina, Russia and Saudi Arabia are not shown in the table as we do not cover these countries in our assessment

- When examining the fulfillment of indicators within various categories across G20 countries, it becomes evident that insurance supervision exhibits relative strength in areas such as micro-prudential supervisory expectations and enabling environment, both showing relatively high results.
- The indicators achievement on “Disclosure & transparency” and “Leadership & internal organization” show very contrasted results with several countries fulfilling less than 10% and some fulfilling higher than 50%.
- Meanwhile, “Micro-prudential supervision (rule based)” and “Macroprudential supervision” often show very low fulfillment. Several countries do not fulfill any SUSREG criteria in those categories which encompass areas such as scenario analysis and stress tests by supervisors, monitoring of risk indicators, exposure limits, and solvency capital requirement.
- Finally, we notice that the European Union (EU) fulfilled relatively high in each category, which constitutes a good foundational basis for the individual EU countries.



CASE STUDY OF SELECT COUNTRIES WITH COMMENDABLE EFFORTS IN ADVANCING THEIR SUSTAINABLE INSURANCE SUPERVISION

SINGAPORE



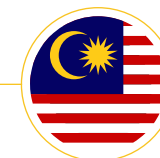
- The Monetary Authority of Singapore (MAS) published the Guidelines on Environmental Risk Management (ENRM) for Insurers in December 2020 which then takes effect in June 2022.
- The guidelines mentioned expectations on both underwriting (e.g part of underwriting due diligence, monitor exposure and risk concentration, reflecting the risk into insurance premiums, etc) and investment activities (e.g ongoing monitoring, track environmental impacts of the portfolio, etc).
- MAS conducted a survey of selected insurers in 2021 ahead of the effective date of the ENRM Guidelines to assess the pace of implementation and to benchmark practices which was published in their Information Paper in 2022.
- The same year, MAS conducted a climate scenario analysis exercise for selected key banks and insurers as part of the Stability Review. MAS also convened the Green Finance Industry Taskforce (GFIT) which developed the taxonomy and formulates the technical criteria using a “traffic light” classification system for select key sectors.

EUROPEAN UNION



- In the European Union, EIOPA (the European Insurance and Occupational Pensions Authorities) has launched a number of initiatives to address key ESG issues in the European insurance sector.
- In 2023, EIOPA published a discussion paper on the prudential treatment of sustainability risks which considers it relevant to start assessing quantitatively the potential for a dedicated treatment of transition risk exposures in the solvency capital requirements, as well as a staff paper aiming to raise awareness on nature-related risks and impacts for insurance.
- In other publications, EIOPA has also explored potential avenues to reduce the climate and natural catastrophe protection gap both from a demand-side perspective and (together with the European Central Bank) from a supply-side perspective. Further on that topic, EIOPA released this year their dashboard on insurance protection gap for natural catastrophes, a key tool filling an important data gap.
- Finally, EIOPA followed up on earlier initiatives through publishing application guidance on running climate change materiality assessment and using climate change scenarios in the ORSA (europa.eu) and a report on the Implementation of Climate-Related Adaptation Measures in Non-Life insurance, providing European insurers with examples and suggestions on how climate scenarios and impact underwriting could be implemented.

MALAYSIA

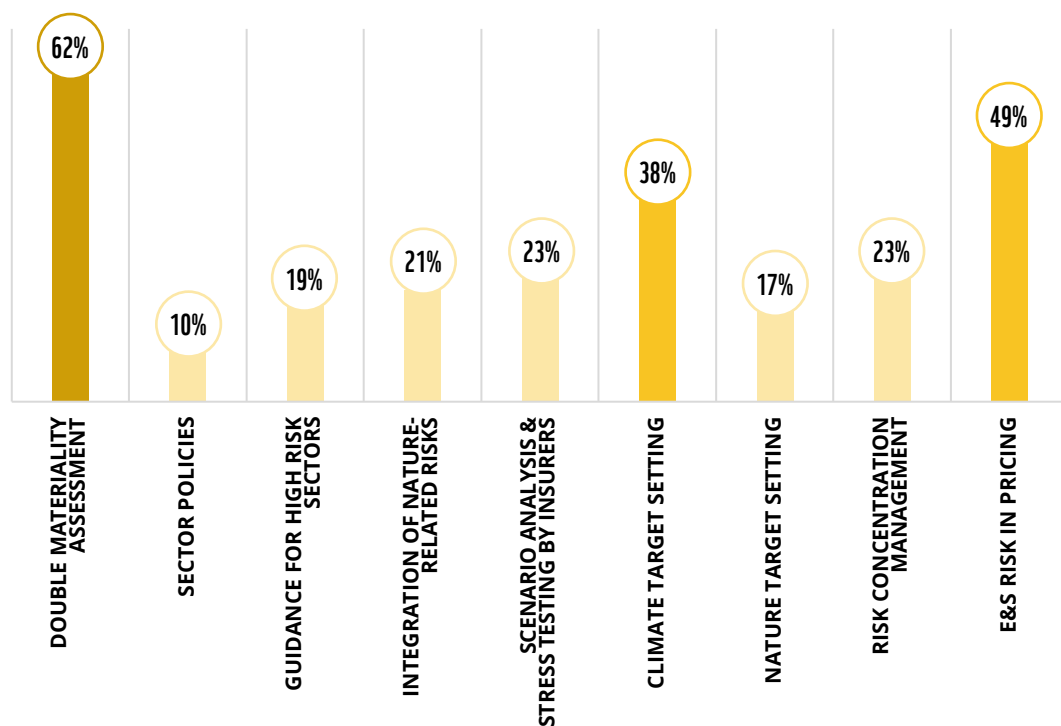


- Bank Negara Malaysia (BNM) started greening their financial supervision with the publication of the VBIAF framework in 2019, which also covers insurance sector. It's worth noting that in the same year, the Islamic insurance association in the country published VBI for Takaful (Islamic insurance) which encompasses guidance a sustainable insurance practices.
- Since then, the BNM together with industry initiatives like the Joint committee on Climate Change (JC3) have issued a number of guidance and expectations for financial institutions which also covers insurance activities.
- The climate risk management guide for instance mentioned key expectations for insurers such as repricing of insurance premium and assessing climate risks impact in their underwriting activities.
- In their discussion paper on Climate Risk Stress Testing Exercise, BNM proposes for licensed insurers, including licensed professional reinsurers to participate in the 2024 climate risk stress testing exercise. In which they expect financial institutions to complete the stress test exercise at the entity level. In the same document, BNM proposes insurers to assess the impact of physical and transition climate risks on their claims, benefit payouts and liabilities.



CRITICAL ELEMENTS ARE ABSENT IN INSURANCE REGULATORY FRAMEWORKS: SECTOR POLICIES, HIGH-RISK SECTOR GUIDANCE, AND NATURE TARGET SETTING

FIGURE 30: AVERAGE ACHIEVEMENT OF 43 COUNTRIES ON SELECT INDICATORS OF INSURANCE SUPERVISION



Note: The number displayed in the graph represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment and/or between investment and underwriting, the results were given equal weight. Partially met criteria allow for a 50%, while fully met criteria result in a 100% fulfilment.



DOUBLE MATERIALITY ASSESSMENT

When performing a double materiality assessment, the insurance company consider both the effect that the insurance company has on the environment and society, as well as the effects the society and environment has on the company. There are, however, still 25 countries that have only partially clear expectations which indicates that they only require an inward-looking perspective of materiality, or even no expectation at all.



SECTOR POLICIES

Insurers should develop and implement sector policies outlining minimum E&S requirements, particularly in sectors with high E&S risks and impacts. Most countries have not yet set expectations related to this topic.

Bermuda Monetary Authority (BMA)'s proposed Guidance Notes on Management of Climate Change Risks for Commercial Insurers focused on how climate change impacts risks that are transferred to insurers and **expect insurers to consider their own external impact on climate change ('double materiality') as it may also revert back and affect in short, mid, or longterm their own financial performance, reputation and operations and, by extension, the financial soundness of the sector as a whole.**



The Prudential Practice Guide CPG 229 of Australian Prudential Regulation Authority (APRA) mentioned that a prudent institution would likely seek to identify economic sectors with higher or lower exposures to physical and/or transition climate risks. **The assessment of economic sectors may be used to develop sector-specific policies and procedures** for the institution when undertaking business engagements (such as investing, insuring or lending) with that sector.



CLIMATE TARGET SETTING

Supervisors should expect insurers to set science-based climate targets and to align their portfolios with the objectives of the Paris Agreement. 27 countries mentioned insurers to set climate target, but often they do not mention the target to be science-based or to align with Paris agreement goals.



NATURE TARGET SETTING:

Insurers should integrate deforestation and wider habitat conversion issues in their decision-making. The low achievement of this indicator shows that many supervisors still ignore environmental risks beyond climate. Some countries partially consider this by including the risks in the general consideration of environmental risks, but only two qualify for a “fully met” assessment which means the countries have a detailed guideline how insurers can assess and manage nature related risks in their business.



SCENARIO ANALYSIS & STRESS TESTING:

Stress testing and scenario analysis is a very powerful tool that has become mandatory for managing traditional financial risks, but this should also be the case for climate and environmental risk. With 23% of average achievement, there is still a lot of progress to be made.



E&S RISK IN PRICING:

Supervisors should expect insurers to reflect E&S risks in their pricing and ensure insurance premiums reflects the risk of monetary loss related to E&S risks.

This indicator shows a good percentage of achievement overall with more than 19 countries fully meeting the requirements.



A Guideline on the use of Deforestation Risk Mitigation Solutions for Financial Institutions was issued in the Netherlands as an introductory document to the thematic issues of deforestation. A focal point of this publication is **the introduction of a list of services and tools that help financial institutions in tackling the issue of deforestation**, connected to illustrations on how these sources are already applied in the field.

In Canada, the Federally Regulated Financial Institutions (FRFI) are expected to **use climate scenario analysis to assess the impact of climate-related risk drivers on its risk profile, business strategy, and business model**. When undertaking climate scenario analyses, the FRFI should consider a range of plausible and relevant models and climate scenarios, over various time horizons (i.e., short-, medium- and long-term), when climate-related risks can materialize and drive the FRFI's risks.

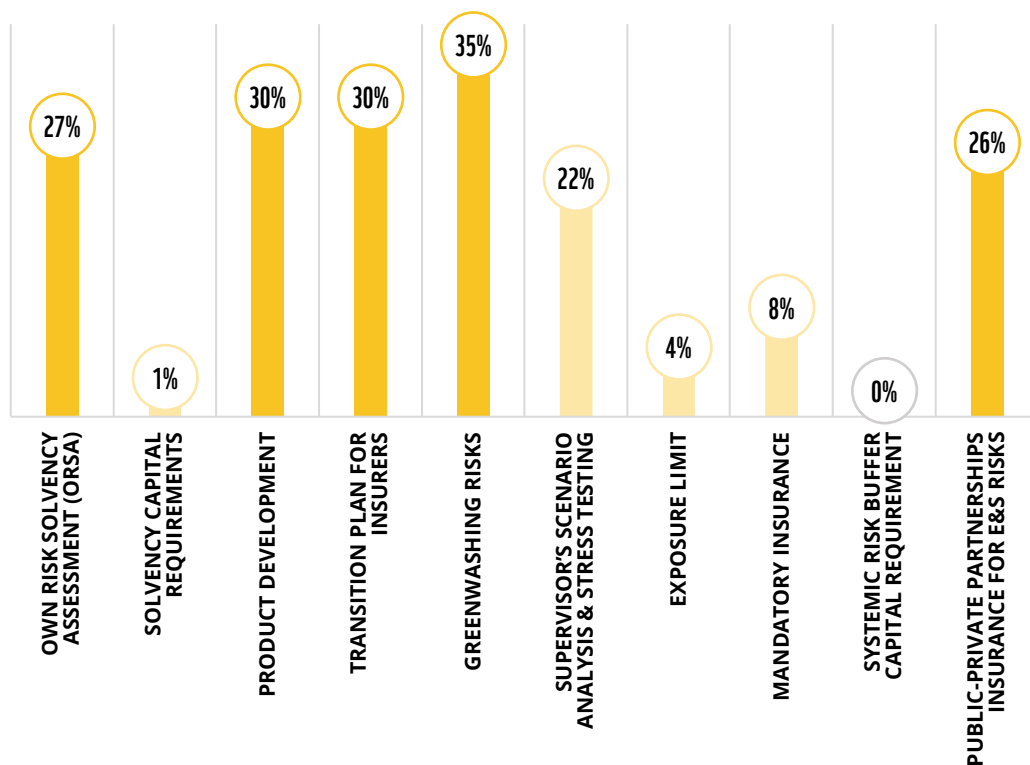
Financial Supervisory Service (FSS) of South Korea in **their Revised Climate Risk Management Guidelines requires directors and executive officers to consider whether the financial company is appropriately aligned with international agreements such as the Paris Convention** or with the climate risk management objectives set in the government's Climate Risk Management Target. Financial institutions should also evaluate whether the portfolio's climate risk-related activities meet international agreements and benchmarks, such as the Paris Convention.

In Circular 666 SUSEP of Brazil require the supervised insurance companies to **implement criteria and procedures for pricing and underwriting risks**, with or without the imposition of special conditions, which take into account at least the client's track record and commitment in managing sustainability risks; the client's ability and willingness to mitigate the sustainability risks associated with the transaction any, and restrictions or limits applicable.



KEY INDICATORS ARE STILL MISSING FROM INSURANCE REGULATORY MEASURES, SUCH AS SOLVENCY CAPITAL REQUIREMENTS AND EXPOSURE LIMIT

FIGURE 31: AVERAGE ACHIEVEMENT OF 43 COUNTRIES ON SELECT INDICATORS OF INSURANCE SUPERVISION



SOLVENCY CAPITAL REQUIREMENTS

Solvency capital requirements hold a pivotal position within insurance regulation, carrying substantial implications for both financial stability and the allocation of financial flows. Yet, in their current state, regulators do not adequately account for financial risks associated with climate & environment risk.



PRODUCT DEVELOPMENT

Only Brazil, China and Thailand supervisors clearly expect insurers to integrate environment and climate considerations when developing and distributing new products. 18 countries do not mention this at all, and the other ones mention it but only limited to either underwriting or investment product.

EIOPA in their discussion paper titled "Prudential Treatment of Sustainability Risks" considers it relevant to **start assessing quantitatively the potential for a dedicated treatment of transition risk exposures in the solvency capital requirements**. EIOPA proposes to focus the analysis on market risks in terms of equity, spread and property risk, as these market risk categories relate to the most relevant asset classes for undertakings.



Under the Guidelines for Establishing the Green Financial System by People Bank of China (PBOC), PBOC **encouraged insurance institutions to develop insurance products for environmental protection** technologies and equipment, liability insurance for product quality and safety for low-carbon and environmentally friendly products, liability insurance for vessel pollution damage, forest insurance and insurance for agriculture and husbandry disasters.



GREENWASHING RISKS

The supervision of conduct risk for insurance products sold by insurers should include provisions related to addressing greenwashing risks. This indicator has a 35% achievement rate but outside of the EU, only very few countries integrate this concretely in their regulation.



SUPERVISORY SCENARIO ANALYSIS & STRESS TESTING

Climate change impacts the whole financial sector through physical and transition risks, hence it is key for supervisors to assess the exposure of insurers to material E&S risks and the implications for financial system stability, by using forward-looking scenario analysis and stress-testing. 12 supervisors are leading the way and fully meeting this indicator.



EXPOSURE LIMIT

Brazil, California state and Sweden has issued recommendations to limit the exposure of insurers to certain activities or sectors based on E&S considerations to prevent and protect against the build-up of systemic risk.



MANDATORY INSURANCE

E&S risks must be factored into insurance premium pricing, and this can potentially render certain risks unaffordable or uninsurable. This is why some countries, such as France and China, implement insurance mandates (i.e. obligation to provide and/or buy certain types of insurance). However, this practice is not widely adopted in many other countries.



Greenwashing risk is gaining increasing prominence in both the EU and the UK. In the EU, **European Supervisory Agencies (ESAs)**, including EIOPA, have published their **progress reports on greenwashing risk** this year, with final reports due in 2024. EIOPA's progress report defines greenwashing and gives concrete examples of greenwashing in insurance. **In the UK, the FCA** is due to implement its '**anti-greenwashing rule**' towards the end of this year. This rule, applicable to all FCA-regulated firms, including insurers, clarifies that any reference to sustainability of a product or service is clear, fair and not misleading.

Chilean Financial Market Commissioner (CMF) is conducting a pilot test climate scenario analysis and stress testing tools with an aim to help the CMF better understand the materiality of climate change risks for investments in the Chilean insurance sector. The exercise will measure relevant insurance portfolios' exposure to physical and/or transition risks and the results of the analysis will be used to develop new supervisory tools.

California Insurance Commissioner, Dave Jones, asked all insurance companies doing business in California to voluntarily divest from their investments in thermal coal. Complying with this request would include making no new investments, not renewing any existing investments and selling or withdrawing from existing investments in thermal coal.

The **People Bank of China (PBOC)** in their "**Guidelines for Establishing the Green Financial System**" established a compulsory environmental pollution liability insurance system in areas of high environmental risks. Formulate and revise relevant laws and regulations of compulsory environmental pollution liability insurance according to procedure. The environmental protection agency, in collaboration with the insurance regulatory agency, should publish implementation rules. Include enterprises under the coverage of compulsory environmental pollution liability insurance in areas in which there are higher environmental risks and concentrated environmental pollution incidents.

OPTIONS FOR POLICY MEASURES TO REDUCE THE CLIMATE INSURANCE PROTECTION GAP



The European Central Bank (ECB) and the European Insurance and Occupational Pensions Authority (EIOPA) released a collaborative discussion paper outlining strategies to enhance insurance coverage for households and businesses in the European Union (EU), specifically against climate-related natural disasters like floods.

According to the report, only a quarter of the climate-related catastrophe losses in the EU are covered by insurance. This gap in insurance protection is expected to increase over the medium to long term due to the impacts of climate change and might have a negative impact on economic development and inflation since climate risks can generate "losses related to changes in short and medium-term economic production and consumption."

The ECB and EIOPA suggest a "ladder approach" to bridge this insurance gap, combining the role of government and private sector in sharing the losses from natural disasters at various loss layers. Public authorities would delegate responsibility for insuring against high frequency, low effect climate disasters to the private sector, while national governments and, eventually, the EU would insure against low frequency, high impact occurrences.

Private (re)insurance is still expected to be the first line of defense to cover losses from climate-related natural disasters. To promote insurance coverage, insurers might structure their policies in a way that incentivizes households and businesses to mitigate risk. This could be achieved by offering discounts to those who implement effective measures for risk mitigation or adaptation (e.g. premium reductions associated with homes meeting certain standards with respect to flood-proofing in flood-prone areas or protection against storms, and with the use of real-time weather data and alert systems in relation to crop insurance). ECB and EIOPA also encourage the use of capital market instruments (e.g. catastrophe bonds) to supplement traditional insurance schemes by offering swift liquidity for post-disaster reconstruction and transferring a portion of the risk to investors in the capital market.

To anticipate the increase in natural catastrophe risks and their growing complexity for insurance, governments will support a national-level initiative to develop more advanced frameworks addressing major disasters. This might include public-private partnerships (PPPs) and pre-event public backstops complemented with suitable safeguards &

incentives to promote risk mitigation. PPPs established at the national-level can offer supplementary coverage through either direct insurance or compensating a private (re)insurer for exceptional occurrences while ensuring that cost and responsibilities are shared between the public and private sectors.

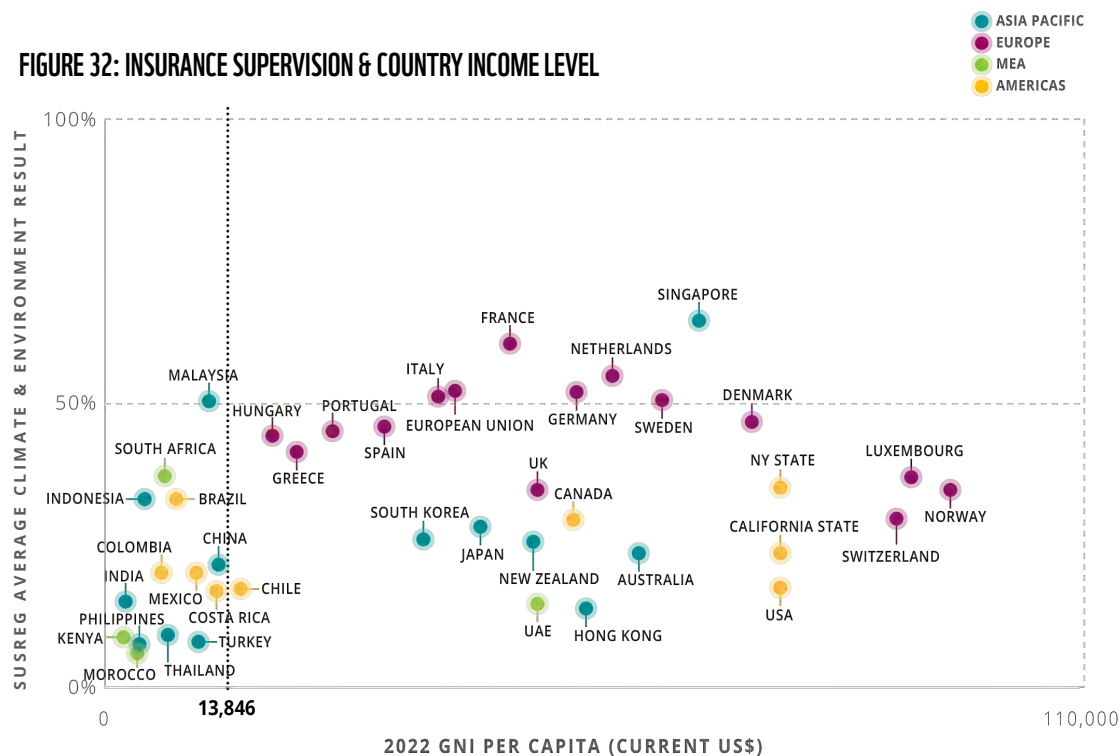
Lastly, a potential EU-wide public insurance scheme for climate-related catastrophes is discussed for rare and extreme climate-related catastrophes to accompany existing national schemes. Risk pooling at the EU level could limit the negative economic consequences while expediting recovery and reconstruction endeavors. Nevertheless, this EU-wide fund is expected to incorporate protective measures to manage moral hazard (e.g. access to the fund could be subject to Member States adhering to agreed adaptation strategies and achieving their emissions reduction targets).

- [1] [Policy options to reduce the climate insurance protection gap: Discussion Paper](#)
- [2] [ECB and EIOPA call for increased uptake of climate catastrophe insurance](#)



SOME OF THE HIGHEST-INCOME COUNTRIES ARE FALLING BEHIND IN THEIR CLIMATE AND ENVIRONMENTAL RISK INSURANCE SUPERVISION

FIGURE 32: INSURANCE SUPERVISION & COUNTRY INCOME LEVEL



Source of GNI per capita: The World Bank, 2022

Note: GNI per capita (formerly GNP per capita) is the gross national income, converted to U.S. dollars using the World Bank Atlas method, divided by the midyear population. For the current 2024 fiscal year, high-income economies are defined as those with a GNI per capita, calculated using the World Bank Atlas method, of \$13,846 or more in 2022. We used the average of SUSREG climate and environmental assessment under this graph | California and New York are attributed the same GNI as the USA here.

- In the urgent battle against climate change, high-income countries find themselves at a critical juncture, holding both a unique opportunity and a profound responsibility. Their role in combatting climate change extends far beyond domestic policies and emissions reductions. One often-overlooked avenue through which they can make a substantial impact is by wielding their influence in insurance supervision.
- However, despite their advanced economic status and well-developed financial infrastructure, insurance supervisors in the top five highest-income countries have made limited progress in establishing a comprehensive climate-related prudential insurance regulatory framework. Their performance falls below 50% in our SUSREG assessment.
- These countries should take immediate action to set a strong example by enforcing rules and standards that mandate insurance companies to thoroughly assess and mitigate climate and environmental risks in their decision-making processes, both in their underwriting policy and investment strategies. Such actions have far-reaching implications for global efforts to effectively manage climate-related risks within the insurance industry.

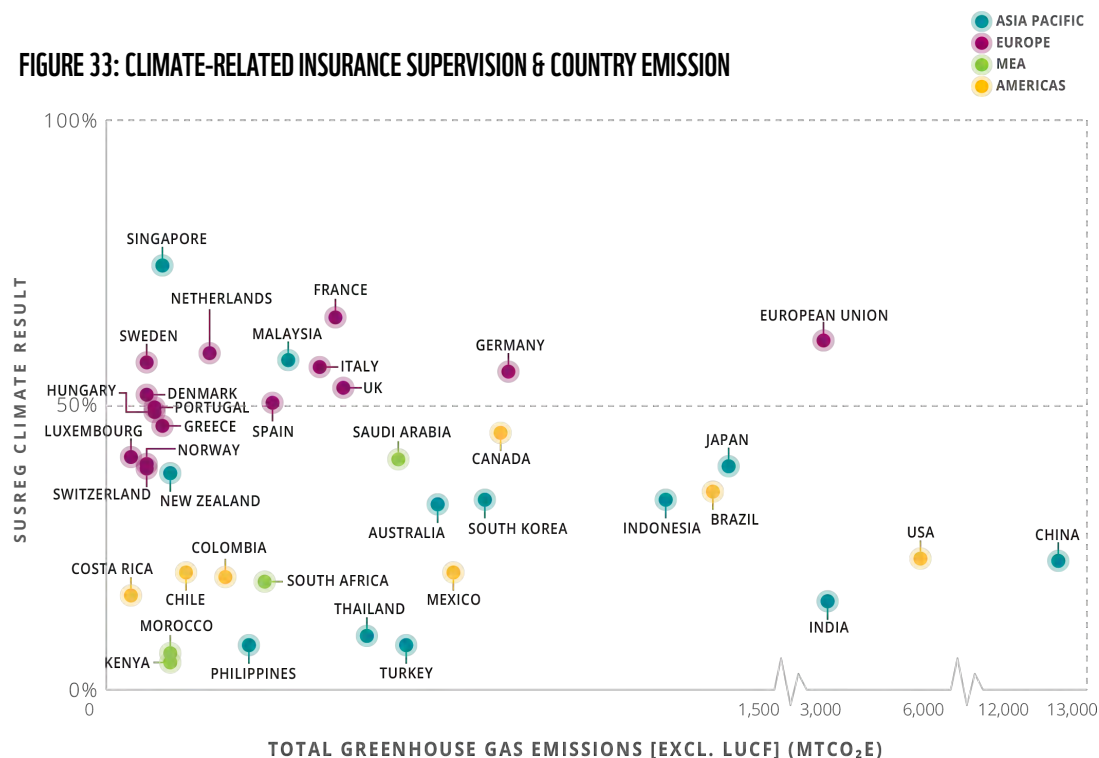
Monetary Authority of Singapore (MAS) mandates insurers to apply risk criteria to identify sectors with higher environmental risk. The risk criteria may include the level of greenhouse gas emissions, vulnerability to extreme weather events, and linkages to unsustainable energy practices, deforestation and pollution. **For sectors with higher environmental risk, the insurer should develop sector-specific policies, which clearly articulate the insurer's expectations towards an existing or prospective customer, and where possible, take into account internationally recognised sustainability standards and certification schemes, as well as the customer's strategy to manage its environmental risk."**





THE TOP THREE HIGHEST EMITTERS ALIGN WITH LESS THAN A QUARTER OF CLIMATE-RELATED INSURANCE SUPERVISION CRITERIA, A STARK CONTRAST TO THEIR CARBON EMISSIONS

FIGURE 33: CLIMATE-RELATED INSURANCE SUPERVISION & COUNTRY EMISSION



Source of country 2022 emission: The World Bank

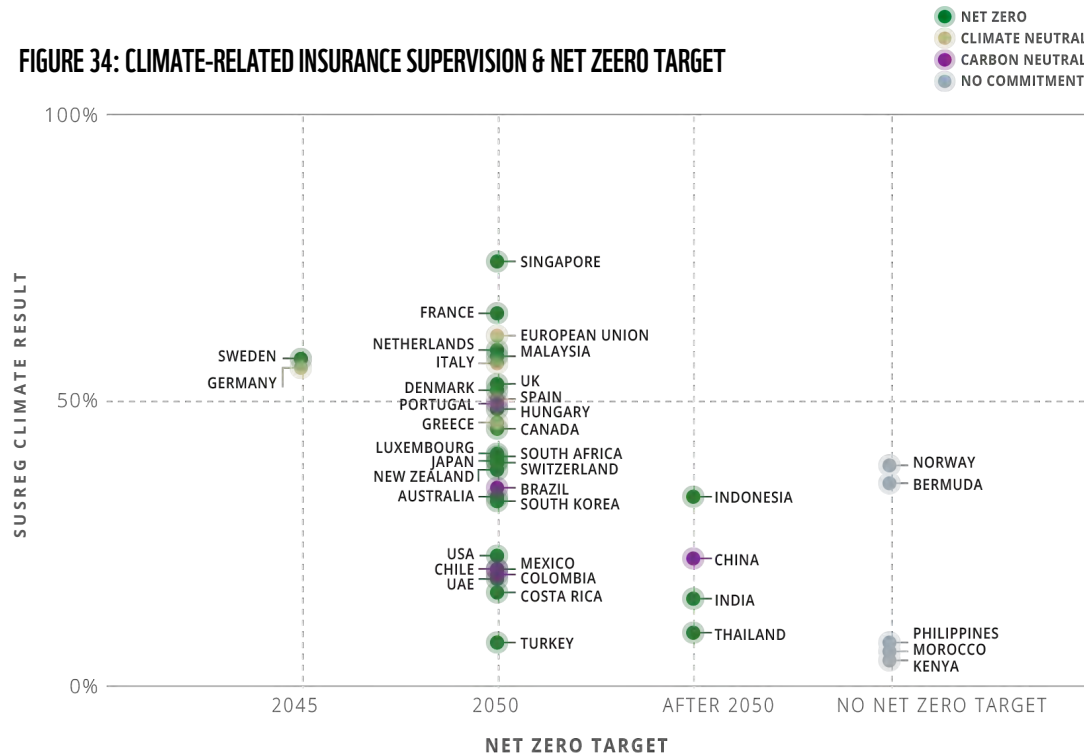
Note: Total greenhouse gas emissions in kt of CO₂ equivalent are composed of CO₂ totals excluding short-cycle biomass burning (such as agricultural waste burning and savanna burning) but including other biomass burning (such as forest fires, post-burn decay, peat fires and decay of drained peatlands), all anthropogenic CH₄ sources, N₂O sources and F-gases (HFCs, PFCs and SF₆). This series excludes Land-use Change & Forestry (LUCF).

- Given their substantial emissions footprints and the escalating climate-related hazards, the top absolute emitters globally —China, the United States and India, bear a profound responsibility in spearheading efforts to reduce greenhouse gas emissions, extending this responsibility to all sectors, including the insurance industry.
- However, it is worrying that these insurance supervisors have not yet established a robust regulatory framework to manage their climate risk exposure. Our SUSREG assessment revealed that the top three highest emitters fulfill no more than 25% in climate-related insurance supervision, a stark contrast to their significant carbon emissions.
- Several critical SUSREG indicators are absent from their supervision efforts, such as requirements for insurers to set science-based climate targets, integrate climate considerations into risk management, or develop investment policies for sectors with high contribution to climate changes. Without stringent supervision in place, insurance companies may continue to invest in fossil fuels or inadvertently promote behaviors that exacerbate climate change through their insurance underwriting.
- As climate-related litigation continues to surge on a global scale, insurers find themselves susceptible to legal risks. They not only face direct legal exposure but also the prospect of litigation involving their policyholders. Insurers, especially those providing coverage for liability lines of business such as Directors' and Officers' insurance products, may encounter significant exposure to climate-related legal claims, including cases related to issues like greenwashing, filed against the companies they insure.
- Regulators are paying increasing attention to this risk. In the UK, the Bank of England has emphasized the need for general insurers to develop data extraction and modeling techniques to ensure that coverage intent aligns with policy wording. Furthermore, the Network for Greening the Financial System (NGFS) released two complementary reports on climate-related litigation risks this year. The first report outlines the trends in this area, while the second provides recommendations for supervisors on how to assess this risk.



MAJOR DISCREPANCIES ARE OBSERVED IN THE CLIMATE INSURANCE SUPERVISION OF THE COUNTRIES COMMITTED TO ACHIEVING A NET ZERO TARGET

FIGURE 34: CLIMATE-RELATED INSURANCE SUPERVISION & NET ZERO TARGET



Source of countries' net zero target: Net Zero tracker (2023)

Note: Although Norway has not formally adopted a net-zero target, the country has established a goal to reduce its greenhouse gas emissions by 90 to 95 percent by the year 2050, compared to emission levels in the reference year 1990.

- In the context of achieving a country's net zero target, insurance companies have the capacity to encourage sustainable practices, risk mitigation, and strengthen climate resilience through their underwriting activities. At the same time, as major institutional investors, they hold the financial power to support and fund green activities, such as renewable energy and environmentally-friendly infrastructure projects, making a significant positive impact on the environment.
- However, despite the growing concern and the potential for insurance companies to drive positive change, many countries have yet to implement robust insurance supervision frameworks addressing climate and environmental risks adequately. Alarming, among countries aiming to achieve net-zero emissions by 2050 or beyond, more than half of their climate insurance supervision efforts fulfill below 50% of SUSREG criteria.
- To successfully attain ambitious net-zero targets by 2050 or beyond, it is imperative that a multitude of insurance supervisors worldwide implement stricter regulations that compel insurers to fully integrate these sustainability objectives into every facet of their business operations.

In New York, the **Department of Financial Services (DFS)** *Guidance for New York Domestic Insurers on Managing the Financial Risks from Climate Change* requires each insurer to take a proportionate approach to managing climate risks that reflects its exposure to climate risks and the nature, scale, and complexity of its business.

All insurers, regardless of size, are expected to analyze their climate risks on both the underwriting and investment sides of their balance sheet.

From August 2022 and in line with the updated EU Directive 138/2009/EC (Solvency II Directive), insurers in the EU are required to also consider how their asset portfolios affect the climate. For insurers' underwriting activities, impact considerations are indirectly encouraged through the EU Taxonomy Regulation (which sets stringent criteria for underwriting activities to be considered aligned with the Taxonomy's climate adaptation objectives) and through the concept of 'impact underwriting', which has been promoted by European Insurance and Occupational Pensions Authority (EIOPA) for insurers to apply on a voluntary basis.





MONETARY AUTHORITY OF SINGAPORE'S SUPERVISORY EXPECTATION ON CREDIBLE TRANSITION PLANNING

The Monetary Authority of Singapore (MAS) issued a set of consultation papers^[1] that outline guidelines for transition planning by banks^[2], insurers^[3], and asset managers^[4] in October 2023. These guidelines are designed to empower financial institutions to support the transition to a net zero economy, fostering effective climate change mitigation and adaptation measures within their customer base and investee companies, as well as addressing the expected physical effects of climate change.

Key components of the Transition Planning Guidelines (TPG) include: (i) Encouragement for FIs to establish a robust transition planning process that integrates climate change mitigation and adaptation measures, (ii) emphasizing the importance of actively engaging with customers and investee companies to foster sustainable practices and raise awareness of climate-related risks and opportunities, (iii) requirement for FIs to conduct a thorough climate risk assessment to identify potential vulnerabilities and enhance resilience, ensuring a smoother transition to a net-zero economy, (iv) expectation on FIs to disclose climate-related data and report on their progress towards implementing sustainable practices, and (v) promote FIs collaboration with one another, industry stakeholders, and innovators to develop new sustainable financial products and solutions that accelerate the transition to a net-zero economy.

In announcing these guidelines, Mr. Ravi Menon, Managing Director of MAS, highlighted their importance. He stated, "The financial sector has a pivotal role to play in driving the transition to a net-zero economy. The Guidelines on Transition Planning set a clear path for financial institutions in Singapore to contribute to global climate action. By aligning business strategies with climate goals, actively engaging customers and investee companies, and assessing climate risks, the financial sector can be a catalyst for positive change."

MAS has previously established supervisory expectations regarding environmental risk management through the Guidelines on Environmental Risk Management for Banks (ENRM Guidelines)^[5]. The TPG (Transition Planning Guidelines) aims to complement these guidelines by offering more detailed guidance specifically on banks' transition planning processes. The TPG encompasses similar overarching themes encompassing Governance and Strategy, Risk Management, and Disclosures as the ENRM Guidelines.

[1] [MAS Guidelines for Financial Institutions on Transition Planning for a Net Zero Economy](#)

[2] [Consultation Paper on Proposed Guidelines on Transition Planning for Banks](#)

[3] [Consultation Paper on Guidelines on Transition Planning for Insurers](#)

[4] [Consultation Paper on Proposed Guidelines on Transition Planning for Asset Managers](#)

[5] ENRM Guidelines for [banks](#) and [insurers](#)



Monetary Authority
of Singapore

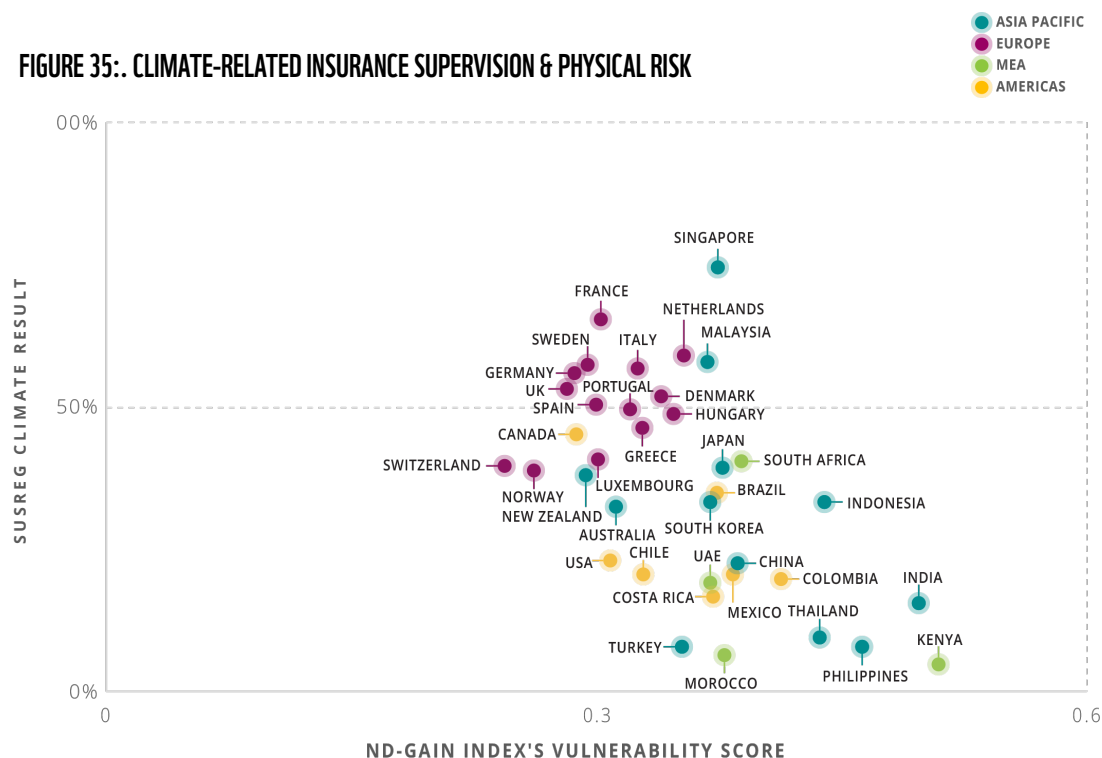


Image: Freepik



HIGH PHYSICAL RISK ZONES ARE DOMINATED BY COUNTRIES WITH INSUFFICIENT CLIMATE-RELATED INSURANCE SUPERVISION

FIGURE 35: CLIMATE-RELATED INSURANCE SUPERVISION & PHYSICAL RISK



Source of countries' climate physical vulnerability: Notre Dame Global Adaptation Initiative, 2021
 Note: Notre Dame Global Adaptation Initiative Index (ND-GAIN)- vulnerability score measures a country's exposure, sensitivity and capacity to adapt to the negative effects of climate change. ND-GAIN measures overall vulnerability by considering six life-supporting sectors – food, water, health, ecosystem service, human habitat, and infrastructure.

- Florida's re/insurance industry faced a severe setback last year, with the bankruptcy of multiple insurance companies following hurricane-related losses. While legislative efforts^[1] were immediately made to mitigate the crisis, the continued departure of major providers has led to skyrocketing insurance premiums^[2].
- This example underscores the pressing imperative for insurance supervisors to support the industry's resilience, particularly in regions highly susceptible to climate-related physical risks. Without measures from the supervisor, insurance premiums in the countries that are most vulnerable to the consequences of climate change will become unaffordable, leading to a larger insurance coverage gap.
- Precautionary measures and stringent oversight also carry substantial weight in ensuring both financial stability and the protection of policyholders amid the escalating challenges posed by climate change.
- Based on the SUSREG assessment, climate-related insurance supervision varies among different countries in the same regions. Singapore and Malaysia stand out as leaders in the Asia-Pacific (APAC) while Canada takes the lead among American countries, but the remaining countries in APAC and Americas generally have weak climate insurance supervision policies despite being exposed to a similar physical risk level.

De Nederlandsche Bank of Netherlands assessed the impact of climate risk to insurance sectors. Based on the Royal Netherlands Meteorological Institute (KNMI) scenarios, the number of climate-related claims for insurers is set to increase in the future and may even more double by 2085. About 22% of the claims in private homeowner's insurance policies relate to storm, hail and rain. Looking at the trends for rain and hail identified by KNMI, the number of climate related claims could increase substantially over the next decades.



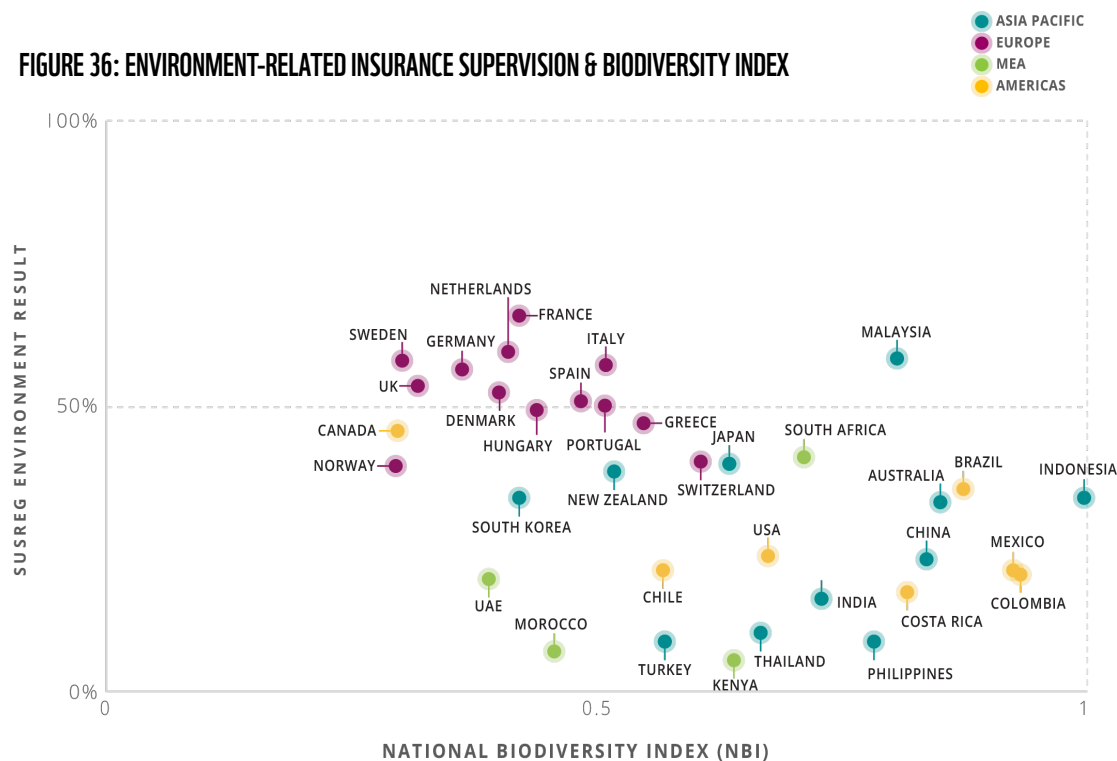
[1] Florida legislature passes a massive property insurance bill

[2] Florida homeowners will face a projected 40 percent increase in property insurance rates



INSURANCE SUPERVISION IS FALLING SHORT IN ASIA-PACIFIC AND LATIN AMERICA'S MEGA-BIODIVERSE COUNTRIES, LEAVING EXPOSURE TO NATURE-RELATED RISK AT HIGH LEVELS

FIGURE 36: ENVIRONMENT-RELATED INSURANCE SUPERVISION & BIODIVERSITY INDEX



Source of National Biodiversity Index: Convention on Biological Diversity (CBD)
 Note: The National Biodiversity Index (NBI) is based on estimates of country richness and endemism in four terrestrial vertebrate classes and vascular plants; vertebrates and plants are ranked equally; index values range between 1.000 (maximum: Indonesia) and 0.000 (minimum: Greenland, not shown in table). The NBI includes some adjustment allowing for country size. Countries with land area less than 5,000 sq km are excluded. Overseas territories and dependencies are excluded from this column.

- Biodiversity loss presents an increasingly significant source of both risk and opportunity within the insurance sector. Insurers will experience the impact of this through the risks they underwrite and the investments they engage in.
- In 2021, global economic losses due to floods amounted to a staggering USD 82 billion, with a mere 25% of these losses covered by insurance^[1].
- Nevertheless, it is evident that prudential regulations for insurance companies in many mega-biodiverse nations are falling short. Particular attention should be directed towards countries in Latin America and the Asia-Pacific region where the national biodiversity index exceeds 0.7, yet the SUSREG environment fulfillment remains below 50%.
- The effectiveness of insurance underwriting notably lies in the precise pricing of risk. Given the growing economic threat associated with the biodiversity crisis, insurers are compelled to enhance their ability to accurately assess these associated risks.
- The Dasgupta review^[2] underscores the critical importance of pricing these nature risks, with several frameworks available to factor in the economic value of nature.

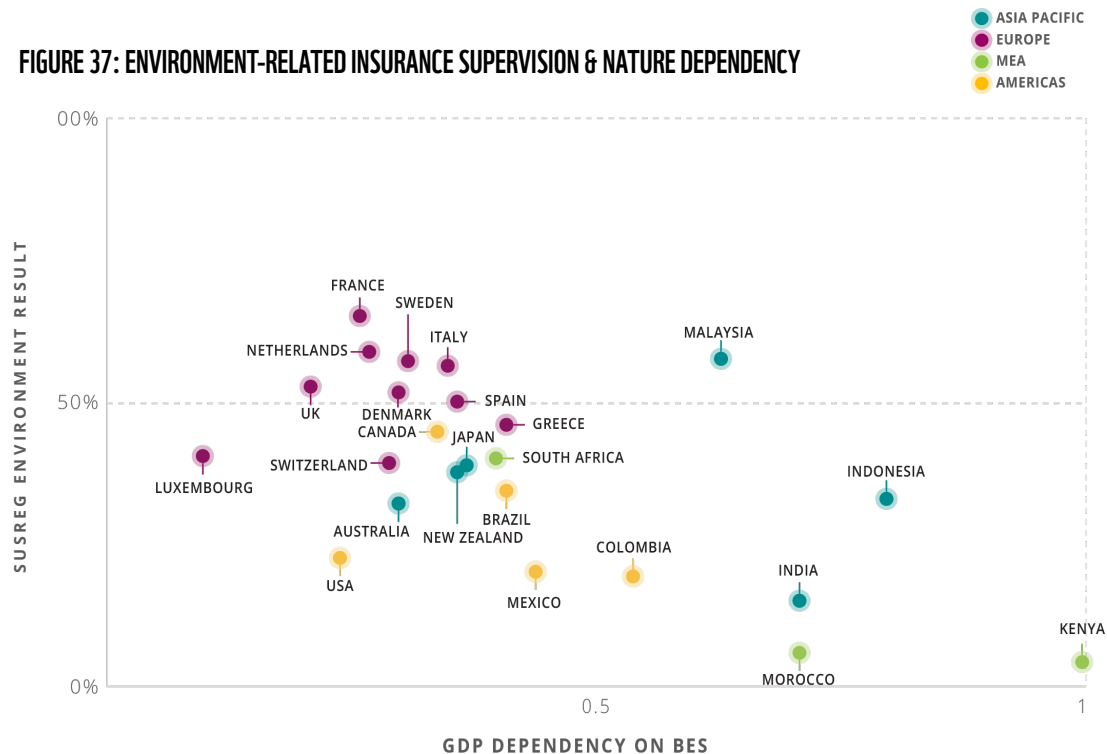
The Office of Insurance Commission (OIC) of Thailand collaborates with insurance-related entities to develop insurance products that provide tools for managing risks, improving well-being and creating positive impact on environment and society, such as developing agricultural insurance products that support the Thai farmers in managing catastrophic and economic risks, developing such insurance products that drive inclusion as "Personal Accident Insurance" (with premium THB 7 and THB 10) to increase equality in risk management and reduce the insurance protection gap.



- [1] [Extreme flood events once again drive high losses in 2021, yet 75% of flood risks remain uninsured, Swiss Re Institute reveals](#)
- [2] [The review was commissioned in 2019 by HM Treasury of UK government and sets out how we should account for Nature in economics and decision-making](#)

INSURANCE SUPERVISORS IN COUNTRIES WITH HIGHEST ECONOMIC DEPENDANCE ON NATURE MUST IMPROVE THEIR INSURANCE SUPERVISION ON NATURE RELATED RISKS

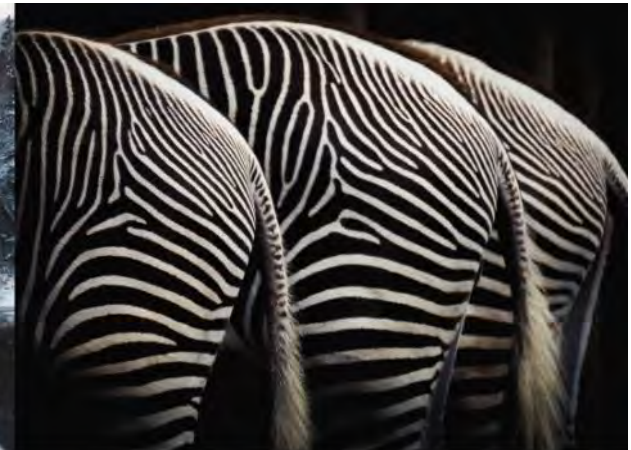
FIGURE 37: ENVIRONMENT-RELATED INSURANCE SUPERVISION & NATURE DEPENDENCY



Source of GDP Dependency on BES: Biodiversity and Ecosystems Services (BES) Index by Swiss RE
 Note: Country specific export-import relations, respectively cross-country input output tables connected to all BES in scope, to unfold dependencies on BES in other countries, were not available yet and hence not taken into account in the calculation of GDP dependency on BES

- Insurance business operating in the countries with high dependency on biodiversity and ecosystem service (BES) will be exposed to higher risks through their underwriting and investment activities. For example, the extinction of pollinators, water scarcity, and soil erosion pose significant threats to food production, increasing the possibility of higher claims for insurers in the agriculture industry due to potential crop losses.
- In countries like Kenya, Indonesia, India, Morocco and Colombia, where there is a substantial and direct economic dependency on BES, the supervisors should exercise greater supervision on nature related risk for insurers. However, our SUSREG assessment shows that the supervisor's efforts to adopt nature prudential regulation in these countries remain extremely low.
- The climate and biodiversity crises also create tremendous opportunities for insurance business. Insurance serves a crucial function by encouraging adaptation and delivering financial protection in the event of sudden climate or biodiversity shocks. The insurance sector stands to capitalize on a significant opportunity in the development of a market for nature-based insurance.
- It's important to note that this dependency data does not encompass export-import relationships. Therefore, the GDP dependency on BES may be underestimated for countries with a significant reliance on imported BES. On 29 June 2023, the European Union Regulation on Deforestation-free Products (EUDR) entered into force^[1]. Companies placing or exporting the affected products in or from the EU market will have to conduct due diligence to confirm that the products have not been sourced from land which was deforested or degraded after 31 December 2020.

[1] European Union Regulation on Deforestation-free Products (EUDR)

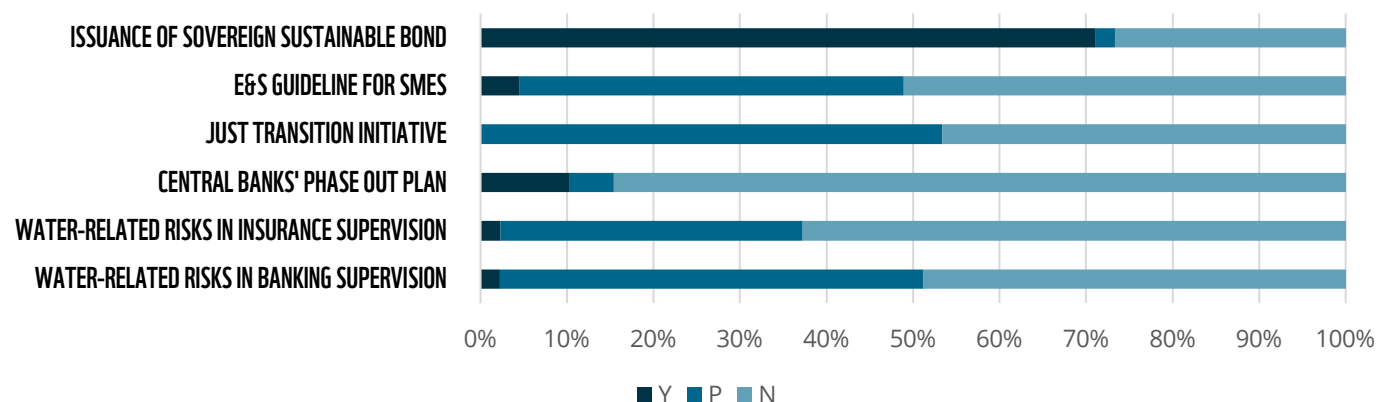


EMERGING ISSUES



THE NEW INDICATORS ADDED IN THE 2023 ASSESSMENT ENCOMPASS TOPICS SUCH AS WATER-RELATED RISKS, CENTRAL BANK PHASE-OUT PLANS, JUST TRANSITION INITIATIVES, SME GUIDELINES, AND SOVEREIGN SUSTAINABLE BONDS

FIGURE 38: HIGHLIGHT OF NEWLY ADDED INDICATORS IN 2023



The Value-based Intermediation Financing and Investment Assessment Framework (VBIAF) in Malaysia gave guidance on how financial institutions could perform **water risk assessment** to their clients. It also listed out examples of impact metrics on water risks such as Volume of water used from regions with High water Stress, water source vulnerability assessments, % of operational assets covered by water stewardship approach, etc.



In Korea, a targeted assistance will be provided for vulnerable groups sensitive to transition to carbon neutrality. The Ministry of Trade, Industry and Energy, and the Ministry of Employment and Labor will work together to strengthen the social safety net, providing comprehensive support for employment stability and the unemployed. In particular, the government will designate vulnerable areas that may suffer from negative impacts due to the rapid transition to carbon-neutrality as special districts for just transition. The government will also establish the 'support center for a just transition' to assist the vulnerable groups.

- **Water-related risks:** Malaysia is the only country with a guidance that mentioned the integration of water-related risks into the decision-making processes, risk management, and policies of banks and insurers. Additionally, 22 countries and 15 countries partially fulfil this indicator in their banking and insurance supervisory practices, respectively, merely mentioning water-related risks as part of general considerations under environmental risks without offering detailed guidance.
- **Central bank's phase out plan:** Central banks in six countries have implemented phase-out plans tied to the most environmentally harmful activities within their portfolios, with the majority of them initiating the phase-out of coal and fossil fuel-related investments.
- **Just transition^[1] initiative:** While no country fully meets the indicator for just transition initiatives, 24 of them have taken initial steps and partially meet the criteria. These initiatives have predominantly been driven by governments rather than central banks or financial supervisors.
- **SME guidelines:** Only two countries, India and Malaysia, have published detailed guidelines for Small and Medium Enterprises (SMEs) in incorporating E&S considerations into their businesses, while 20 other countries have established guidelines, albeit with limited details.
- **Sovereign sustainable bonds:** 71% of the countries assessed have issued and 2% of the countries plan to issue sovereign sustainable bonds which are key in advancing environmental sustainability by providing funding for green projects, attracting responsible investors, enhancing creditworthiness, and showing leadership for other stakeholders in the country.

[1] According to ILO, A Just Transition means greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind.

REGULATORY OVERVIEW ON CLIMATE TRANSITION PLAN

	 CANADA	 HONGKONG	 EUROPEAN UNION
 DOCUMENT	OSFI Guideline B-15: Climate Risk Management	Consultation paper: Enhancement of Climate Disclosure Under the ESG Framework by Hong Kong Exchanges (HKEX)	- Corporate Sustainable Reporting Directive (EU) 2022/2464 - European Sustainability Reporting Standards - Capital Requirements Regulation (CRR3) - Capital Requirements Directive (CRD6)
 SCOPE	All federally regulated financial institutions (FRFI), except foreign bank branches	All listed companies under The Stock Exchange of Hong Kong Limited	- CSRD & ESRS: EU-based companies with more than 250 employees and all listed SMEs - CSRD: EU-based companies with more than 250 employees, all listed SMEs, and large non-EU companies with a branch or subsidiary in the EU reaching the same thresholds - CRR3 & CRD6: EU banks
 DETAILS	OSFI requires institutions to create and put into action a Climate Transition Plan.	The Exchange proposes to mandate all issuers to make climate-related disclosures in their ESG reports. Transition plan is among the key proposals the HKEX made on the enhancement of climate-related disclosures in issuers' ESG reports (i.e. upgrade from current "comply or explain").	CRR3 and CRD6 are EU banking regulations that require institutions to disclose climate targets, transition plans, and address financial risks related to ESG factors. The text also requires the European Banking Authority (EBA) to outline ESG risk transition plan criteria and content.
 ENFORCEMENT	The Guideline will be effective fiscal year-end 2024 for Domestic Systemically Important Banks (DSIBs) and Internationally Active Insurance Groups (IAIGs) headquartered in Canada. For all other in-scope FRFIs, it will become effective at fiscal year-end 2025.	Mandatory disclosure starts from second reporting periods following the Effective Date (1 January 2024). Interim provisions for certain disclosures (e.g. financial effects of climate-related risks and opportunities, scope 3 emissions and certain cross-industry metrics) for the first two reporting years following the effective date of 1 January 2024.	CSRD: 2025 for companies already captured by the Non-Financial Reporting Directive (NFRD) 2026 for large EU companies 2027 for listed SMEs in the EU 2029 for large non-EU companies with a branch or subsidiary in the EU.
 FRAMEWORK	The FRFI should develop and implement a Climate Transition Plan in line with its business plan and strategy, that guides the FRFI's actions to manage increasing physical risks from climate change, and the risks associated with the transition towards a low-GHG economy. In developing the Plan, the FRFI should assess the achievability of its Plan under different climate-related scenarios and how it would measure and assess its progress against the Plan (e.g., internal metrics and targets such as GHG emissions).	Issuer should describe how they respond to the climate-related risks identified and, where applicable, any climate-related opportunities identified, including: - any current or anticipated changes to the issuer's business model, strategy and resource allocation to address such climate-related risks and opportunities; - any adaptation and mitigation efforts (direct or indirect) undertaken or to be undertaken by the issuer; and (how these plans will be resourced.	CSRD mandates company to disclose the plan of the undertaking, including implementing actions and related financial and investment plans, to ensure that its business model and strategy are compatible with the transition to a sustainable economy and with the limiting of global warming to 1,5 °C in line with the Paris Agreement and climate neutrality by 2050. Under CRR3, institutions shall disclose climate targets and transition plans, including absolute carbon emission reduction targets, submitted in accordance with Article 76(2) of Directive 2013/36/EU, and the progress made towards implementing them. In CRD6, Member States shall ensure that the management body develops specific plans, quantifiable targets and processes to monitor and address the risks from ESG factors, including those arising from the transition towards a sustainable economy with the objective to achieve climate neutrality by 2050.

REGULATORY OVERVIEW ON CLIMATE TRANSITION PLAN



SCOPE



DETAILS



ENFORCEMENT



FRAMEWORK

SINGAPORE



[Guidelines on Transition Planning for Banks \(Consultation Paper\)](#)
[Guidelines on Transition Planning for Insurers \(Consultation Paper\)](#)

Financial institutions

The Guidelines emphasize the importance of enhancing Financial Institutions' internal strategic planning and risk management mechanisms to ready themselves for both existing risks and the potential alterations in their business structures arising from the transition. This document have also been tailored to acknowledge the unique business models and requirements of FIs operating in banking and insurance sectors.

Document open for public consultation until 18 December 2023.

In their transition planning process, banks are to consider the following:

- Banks and insurers should take a multi-year view for the continued sustainability of their business models.
- Banks and insurers should engage their customers on the need to adopt mitigation and adaptation strategies as they transition towards a net zero economy and deal with the physical effects of climate change.
- Banks and insurers should have clear, actionable and decision-useful risk appetite statements to guide the implementation of their transition plans.
- Banks and insurers should continue their efforts to address environmental risk beyond climate-related risks, particularly as the risks are inter-linked.
- Banks and insurers should proactively communicate their transition planning process to stakeholders.

• SWITZERLAND



[Ordinance on Climate Disclosures by the Federal Council](#)

Public companies, banks and insurance companies with 500 or more employees and at least CHF 20 million in total assets or more than CHF 40 million in turnover

The Federal Council brings ordinance on mandatory climate disclosures for large companies into force, which include where possible and appropriate, the "Guidance on Metrics, Targets, and Transition Plans by the Task Force on Climate-related Financial Disclosures" version of October 2021

Will come into force by January 1, 2024.

The document mandates the publication of a transition plan that aligns with Switzerland's climate objectives.

Where possible and appropriate, disclosure may include information in quantitative form, as well as the disclosure of the main baseline assumptions for comparison purposes and the methods and standards used.



REGULATORY OVERVIEW ON CLIMATE TRANSITION PLAN



SCOPE



DETAILS



ENFORCEMENT



FRAMEWORK

UNITED KINGDOM

The TPT Disclosure Framework

Companies

The Disclosure Framework provides the basis for companies to set out credible and robust climate transition plans as part of annual reporting on forward business strategy. The Framework will support the creation of consistent, comparable company reports, and reduce the level of complexity faced by firms disclosing climate-related information. Complementary guidance has also been released for those creating climate transition plans, including:

- Sector-specific guidance for 40 sectors to supplement the main Disclosure Framework.
- Guidance on the climate transition planning cycle.
- Technical comparisons between the Disclosure Framework and other established reporting frameworks (see Notes to Editors).
- Legal considerations for companies using the Disclosure Framework in their reports.
- Web-based implementation guidance.

Recommendations

- Foundation: Objectives & priorities, business model implications
- Implementation strategy: Business planning & operations, Products and services, Policies and conditions, Financial planning, Sensitivity analysis
- Engagement strategy
- Metrics & Targets
- Governance

UNITED STATES

Enhancement and Standardization of
Climate-Related Disclosures by the Securities and Exchange Commission

All listed companies under the Securities and Exchange Commission

The proposed rule amendments by the Securities and Exchange Commission would mandate that both domestic and foreign registrants include specific climate-related details in their registration statements and regular reports, including details about any existing climate-related transition plans.

- A phase-in period for all registrants, with the compliance date dependent on the registrant's filer status (ranging from Fiscal year 2023 (filed in 2024) to Fiscal year 2025 (filed in 2026)).
- An additional phase-in period for Scope 3 emissions disclosure (ranging from Fiscal year 2024 (filed in 2025) to Fiscal year 2025 (filed in 2026), but an exemption for Smaller Reporting Companies)).

Disclosure requirements:

- Climate-related risks and their actual or likely material impacts on the registrant's business, strategy, and outlook;
- Governance and relevant risk management processes;
- Greenhouse gas ("GHG") emissions;
- Certain climate-related financial statement metrics and related disclosures in a note to its audited financial statements; and
- Climate-related targets and goals, and transition plan, if any.

TRANSITION PLANS ARE MANDATORY TO DISCLOSE AND SOON TO SET IN THE EUROPEAN UNION



Transition plans are quickly emerging as one of the critical forward-looking tools that companies will have to use to set out and articulate their environmental targets and the means and actions (including capital expenditure) to reach those targets. The EU's sustainable finance framework^[1] already contains several references to transition finance and requirements related to corporate transition plans^[2] and is evolving fast. Disclosure on environmental targets and transition plans is mandatory for European and some non-EU companies (including financial institutions) and setting corporate environmental targets and transition plans will soon become mandatory.

The Corporate Sustainability Reporting Directive (CSRD) is the cornerstone of EU corporate sustainability disclosure. It mandates all EU companies above 250 staffs and listed SMEs to publish the plans of the company to ensure that its business model and strategy are compatible with the transition to a sustainable economy, the limiting of global warming to 1.5°C target and, where relevant, the exposure of companies to coal, oil- and gas-related activities. The directive applies to around 50,000 EU companies, as well as around 10,000 non-EU companies^[3] with a gradual implementation and phasing in periods spanning from 2025 to 2029.

The disclosure on transition plans should include implementing actions and related financial & investment plans. A description of the time-bound targets related to sustainability matters also requires, where appropriate, absolute greenhouse gas emission reduction targets at least for 2030 and 2050, a description of the progress the undertaking has made towards achieving those targets, and a statement of whether the undertaking's targets related to environmental factors are science-based. If a company does not disclose a plan, they should explain the reason and indicate if they intend to adopt one in the future.

The CSRD is specified by the European Sustainability Reporting Standards (ESRS), drafted by the European Financial Reporting Advisory Group (EFRAG)^[4], which was recently adopted by the European Commission through a delegated acts^[5]. The ESRS comprises standardized guidelines concerning transition plans for climate change mitigation (ESRS E1)^[6] and transition plans for biodiversity (ESRS E4)^[7]. The ESRS E1 details ten issues that need to be included in climate transition plans, for companies assessing climate change as material. The ESRS E4 on biodiversity transition plans is less detailed and so far voluntary. It is worth noting that in the final adopted ESRS, most modules (including ESRS E1 on climate) are now optional and subject to materiality assessments.

- [1] A recent Recommendation by the European Commission defines transition plans as follows: "Transition plan mean an aspect of the undertaking's overall strategy that lays out the entity's targets and actions for its transition towards a climate-neutral or sustainable economy, including actions, such as reducing its GHG emissions in line with the objective of limiting climate change to 1.5", see: COMMISSION RECOMMENDATION (EU) 2023/1425 of 27 June 2023 on facilitating finance for the transition to a sustainable economy, Official Journal of the European Union, 7 July 2023, L174/19-46.
- [2] including the EU Taxonomy Regulation (EU) 2020/852, methodologies set out in the EU Climate Transition Benchmarks, EU Paris-aligned Benchmarks and sustainability-related disclosures for benchmarks Regulation (EU) 2019/2089, the Corporate Sustainable Reporting Directive (EU) 2022/2464 and the recently agreed European Green Bond Regulation (May 2023).
- [3] According to data published by Refinitiv in April 2023, EU Corporate Sustainability Reporting Directive would affect over 10,000 non-EU companies
- [4] <https://www.efrag.org/lab6#>
- [5] The European Commission adopts the European Sustainability Reporting Standards, European Commission, July 2023
- [6] See: Annex 1 to the Commission Delegated Regulation supplementing Directive 2013/34/EU as regards sustainability reporting standards (not in force until it is published in the Official Journal), pages 10, and Appendix A on pages 79-81.
- [7] Idem, pages 125-126

Concerning banking institutions in particular, the European Commission proposed a new banking package on EU Capital Requirement Regulation^[8] (CRR3) and Capital Requirement Directive^[9] (CRD6), on which a provisional agreement was reached in June 2023^[10].

CRR3 mandates institutions to disclose climate targets and transition plans, including absolute carbon emission reduction targets and the progress made towards implementing them. Meanwhile, CRD6 requires banks to have in place specific timelines and intermediate quantifiable targets and milestones, to monitor and address the financial risks stemming from ESG factors (especially climate change), including those arising from the transition and the process of adjustment to the applicable regulatory objectives towards a sustainable economy. The text mandates the European Banking Authority (EBA) to define the key criteria and the anticipated contents of these ESG risk transition plans.

Regarding the EU Taxonomy, Germany and France recently called for an extension of it to foster transition efforts of companies. It is to be seen whether this could lead to the creation of a new 'amber' category of activities in the EU Taxonomy framework, for those activities meeting Do No Significant Harm criteria but not (yet) Substantial Contribution criteria, as recommended by the EU Platform on sustainable finance.

The Corporate Sustainability Due Diligence Directive (CSDDD) is in the final negotiation stage. It should require large companies to set a climate target and transition plans. Details are still under discussion. WWF has conducted a detailed review of eight EU regulations or directives^[11] that are already integrating requirements related to corporate climate and nature targets and transition plans and is closely monitoring them. This review also provides recommendations on how the EU regulatory framework can be further improved to articulate them adequately to ensure consistency and impact.

- [8] [Report on the proposal for a regulation of the European Parliament and of the Council amending Regulation \(EU\) No 575/2013 as regards requirements for credit risk, credit valuation adjustment risk, operational risk, market risk and the output floor, European Parliament, February 2023, p.196](#)
- [9] [Report on the proposal for a directive of the European Parliament and of the Council amending Directive 2013/36/EU as regards supervisory powers, sanctions, third-country branches, and environmental, social and governance risks, and amending Directive 2014/59/EU, European Parliament, February 2023, p.74](#)
- [10] [See: Review of the Capital Requirements Regulation \(Regulation 2013/575/EU\) – legislative train schedule, European Parliament website, accessed 15 September 2023.](#)
- [11] [WWF Recommendations for a consistent EU regulatory framework on corporate sustainability targets and transition plans, WWF European policy Office, November 2022.](#)

CURRENT PROGRESS OF NATURE RELATED RISKS INTEGRATION INTO FINANCIAL REGULATION

ASSESSMENT



The supervisor has conducted studies to assess the financial sector's exposure, impact and dependency on nature-related risks and published its conclusions and recommendations.

- Bank Negara Malaysia assessed the commercial loans portfolio and found 54% is exposed to sectors that depend to a high extent on ecosystem services.
- Banxico in their study found that an important share of the credit portfolio of banks is highly or very highly dependent on nature and its ecosystem services.
- De Nederlandsche Bank (DNB) and the Netherlands Environmental Assessment Agency found that 36% of Dutch financial institutions' portfolio is highly or very highly dependent on one or more ecosystem services. They also found the biodiversity footprint of Dutch financial institutions is comparable with the loss of over 58,000 km² of pristine nature.
- Banque de France estimated 42% of the value of securities held by French financial institutions comes from issuers that are highly or very highly dependent on one or more ecosystem services.
- The Magyar Nemzeti Bank of Hungary has an ongoing project to map the financial risks arising from the decline in biodiversity in the Hungarian financial system and to assess those risks by developing a supervisory framework.

SUPERVISORY EXPECTATION AND GUIDANCE



Financial institutions are expected to integrate deforestation, wider habitat conversion issues, water-related risks, and other nature-related risks in their decision-making, risk management processes and policies.

- In March 2023, DNB launched their "Guide to managing climate and environmental risks", expecting financial institutions to understand and manage climate and environmental risks which include issues like water or air pollution, deforestation and loss of biodiversity and ecosystem services.
- A Guideline on the use of Deforestation Risk Mitigation Solutions for Financial Institutions was issued in the Netherlands as an introductory document to the thematic complex of deforestation. A focal point of this publication is the introduction of a list of services and tools that help financial institutions in tackling the issue of deforestation, connected to illustrations on how these sources are already applied in the field.
- In the Monetary Authority of Singapore (MAS)'s Guidelines on Environmental Risk Management for Banks, beyond climate change, customer and portfolio metrics may be used to evaluate the dependencies of key customer segments on ecosystem services and natural capital.

DISCLOSURE & TAXONOMY



Financial institutions are expected to publicly disclose how nature risks considerations are integrated in their business. Nature risks considerations should also be part of the green taxonomy classifications.

- Under the EU's SFDR (Sustainable Finance Disclosure Regulation), Article 4(1)(a) mandates disclosure on the Financial Market Participants (FMP)'s website of the principal adverse impacts (PAI) of its investment decisions on sustainability factors and a statement on due diligence policy with respect to those impacts. Apart from climate indicators, the PAI includes areas such as activities negatively affecting biodiversity sensitive areas and emissions to water.
- Bank Negara Malaysia explicitly links climate and biodiversity in its Climate Change and Principle-based Taxonomy, which is intended to help financial institutions categorize economic activities by their impact on climate and environmental objectives. This includes assessing whether an economic activity protects healthy ecosystems and biodiversity.
- The green bond endorsed project issued by the People's Bank of China or often referred to as China's taxonomy classified a number nature protection activities as part of the endorsed project. This includes ecological protection and construction project which encompasses activities like protection of natural forest resources, ecological restoration of mine degraded lands, rescue protection of endangered wild animals & plants and biodiversity protection.

PRODUCT DEVELOPMENT



Financial institutions are expected to integrate nature risks considerations when developing and distributing new products

- The Office of Insurance Commission (OIC) of Thailand collaborates with insurance-related entities to develop insurance products that provide tools for managing risks, improving well-being and creating positive impact on environment and society, such as developing agricultural insurance products that support the Thai farmers in managing catastrophic and economic risks, developing such insurance products that drive inclusion as "Personal Accident Insurance" (with premium THB 7 and THB 10) to increase equality in risk management and reduce the insurance protection gap.

CURRENT PROGRESS OF NATURE RELATED RISKS INTEGRATION INTO FINANCIAL REGULATION

TARGET SETTING



Financial institutions are expected to set science-based targets to mitigate negative environmental impacts beyond climate, at the portfolio level.

- The Code Monétaire et Financier L53316-1 of France, expects credit institutions and investment firms to publish a strategy for alignment with the long-term biodiversity objectives set for 2030, then every five years, on: (a) compliance with the Convention on Biological Diversity 1992 objectives, (b) contribution to the reduction of the main pressures and impacts on biodiversity identified by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and (c) support for a biodiversity footprint indicator and the way to measure compliance with international objectives related to biodiversity.

TARGETED LENDING



Subsidized loans or preferential targeted refinancing lines offered by the central bank that extends to cover nature conservation activities such as Nature based Solutions (NbS) projects.

- To the extent of our research, no such targeted lending program by central bank is in place that target specifically nature conservation activities.
- However, other type of financial mechanisms and market-based programs designed to direct funding toward NbS and the ecosystem services are available. This includes issuance of green bonds and market-based mechanisms like payments for ecosystem services (PES) (e.g PES on Reducing Deforestation and Forest Degradation program (REDD+)), etc.

MONETARY POLICY TOOLS AND CENTRAL BANKING ACTIVITIES



Central banks integrate nature considerations in their monetary policy tools including consideration in their corporate asset purchase program, assessment of their collateral, investment of their portfolio, etc.

- The Norges Bank Investment Management (NBIM) of Norway in their investment of pension fund has divested from 4 companies in 2022 following their assessment of biodiversity and ecosystems degradation. The NBIM also plan a thematic dialogue with 12 mining companies on their operations in sensitive areas with high biodiversity values.
- The Banque de France (BdF) has started integrating biodiversity indicators in its disclosure of its own and pension fund portfolios under their Responsible Investment report. The BdF disclosed impact indicators such as the Total absolute biodiversity impact, biodiversity footprint, and weighted average biodiversity intensity of their equity portfolio.

ENABLING ENVIRONMENT



The environment required that would be key for the financial sector to fully support nature positive objective

- In 2016, De Nederlandsche Bank (DNB) set up the Sustainable Finance Platform, in which a Working Group on Biodiversity, consisting primarily of private sector players, has been set up under the umbrella of this platform. The working group has so far launched:
 - E-learning biodiversity basics for professionals of financial institutions
 - Framework on financing regenerative agriculture
 - Guidance for integrating biodiversity consideration in the financial sector
 - Upcoming publication on "Action on nature by central banks and supervisors"
- In May 2023, Indonesia issued a first-of-its kind Blue Bond in the Japanese debt capital market, raising JPY 20.7 billion (US\$ 150 million). The proceeds from this bond issuance will provide a much-needed boost to Indonesia's blue economy, including coastal protection, sustainable management of fisheries and aquaculture, marine biodiversity conservation and mangrove rehabilitation.

JUST TRANSITION INITIATIVES ACROSS COUNTRIES

ASSESSMENT



Study on Just Transition in the financial sector to see the impacts of the climate and nature transition economy on labor, social groups and local communities

- Federal Reserve Bank of New York conduct study on “Understanding the Linkages between Climate Change and Inequality in the United States”.
- The government of South Korea has enacted the “Carbon Neutrality Act,” which mentions the plan to conduct government-level vulnerability assessments and disaster prevention measures designed for vulnerable demographic groups and regions. The government has also formally declared its commitment to providing targeted assistance to those specific vulnerable groups facing challenges during the transition towards carbon neutrality.

FORMULATION IN THE STRATEGY AND OBJECTIVES



Formulation of Just Transition in central banks or supervisors’ strategy and objective

- No central banks or financial supervisors have explicitly mentioned Just Transition as part of their key strategy or objectives.

SET EXPECTATIONS FOR FINANCIAL INSTITUTIONS ON JUST TRANSITION



Expectations for financial institutions to include Just Transition aspects in their climate and nature transition

- Following Japan's Basic Guidelines on Climate Transition Finance, fundraising companies are advised to incorporate a comprehensive report detailing the integration of “just transition” principles into their overarching transition strategy.
- In Malaysia, the VBIAF Sectoral Guide on Oil & Gas emphasizes the importance of prioritizing an equitable and justice-oriented energy transition. In this regard, financial institutions (FIs) are encouraged to advocate the adoption of a Just Transition framework by Oil & Gas operators.
- In South Africa, one of the key aspects of sustainability reporting under JSE Sustainability Disclosure Guideline is the disclosure of Environmental Disclosure Metrics, which includes a section on “Just Transition.” Companies are required to provide details about the presence and characteristics of a ‘transition plan’ that commits to engaging stakeholders such as impacted workers and communities, as well as the count of engagements conducted with affected groups.

OTHER INITIATIVES ON JUST TRANSITION



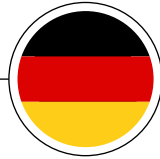
Other notable initiatives on just transition by the government

- The Environmental Justice Program in California endeavors to actively involve communities that suffer a disproportionate burden of pollution.
- The European Union (EU) Just Transition Mechanism designed to address the social and economic challenges that may arise as a result of low carbon transition. Key components of the EU Just Transition Mechanism include Just Transition Fund (JTF), “Just Transition” scheme, and Public Sector Loan Facility
- The G7 Clean Energy Economy Action Plan, released in May 2023, acknowledge the importance of ensuring a just transition for communities and workers affected by the shift to a clean energy economy. The seven countries commit to providing support and opportunities for affected individuals and regions.
- The Kenyan government is set to implement a series of incentives as part of its National Green Fiscal Incentives Policy Framework. One of the potential measures involved the development of incentives for clean cooking fuels and technologies, with a strong commitment to ensuring an inclusive and equitable transition.
- The Zambia Climate Change Gender Action Plan (ccGAP) seeks to weave the threads of gender equality into the fabric of climate change policy and action.
- the President of South Africa established the Presidential Climate Commission to oversee and facilitate a just and equitable transition towards a low-emissions and climate-resilient economy. The committee also came up with the Just Energy Transition Investment Plan (JET IP) for the five-year period 2023-2027.

[1] According to ILO, A Just Transition means greening the economy in a way that is as fair and inclusive as possible to everyone concerned, creating decent work opportunities and leaving no one behind.

SOCIAL RISKS IN THE FINANCIAL SUPERVISION ACROSS DIFFERENT COUNTRIES

GERMANY



- The Federal Financial Supervisory Authority of Germany (BaFin) mentioned in their "Guidance Notice on Dealing with Sustainability Risks" that they believe all ESG (Environmental, Social and Governance) risks should be considered in the sustainability consideration
- The social risks mentioned issues such as labour standards, employment safety and health protection, appropriate remuneration, fair working conditions, Interests of communities and social minorities, etc.
- Quite recently in June 2023, Bafin issues Circular 05/2023 on Minimum requirement for risk management – Marisk. The circular also broadly mentioned social risks as part of the ESG risks that needs to be explicitly taken into account in the overall risk profile of financial institutions.
- However, the guidance and circular document does not provide detailed explanations how financial institutions should assess and manage the social risks in specific.

BRAZIL



- Banco Central do Brasil (BCB) in their New regulation on risk management and social, environmental and climate responsibility gave equal emphasis of social, environmental, and climate-related risk as material sources of credit risk, market risk, interest rate risk, operational risk, and liquidity risk.
- The social risks encompass issues such as labor conditions, impact to local communities and indigenous people, harm to the society, etc.
- Social risks (as are environment and climate risks) are to be considered in the institution's Risk Appetite Statement (RAS), business continuity management, overall risk management, and disclosure.
- Circular SUSEP 666 on the supervisory expectations for insurance companies is consistent with the above regulation by the BCB which include social risks among environmental and climate risks as part of the sustainability consideration.
- Unfortunately, there is little to no publicly available information on the implementation of the regulation and circular.

PHILIPPINES



- Circular no. 1085 by Bangko Sentral ng Pilipinas (BSP) outlined the sustainable finance framework which encompasses both environmental and social risks consideration.
- The circular defined social issues to include risks such as hazards to human health, safety and security, and threats to community, cultural heritage, among others.
- Additionally, BSP also issued Circular no. 1159 which mandates banks to design and offer financial products and services that suit the specific requirements of rural community beneficiaries, taking into account their cash flows and the gestation and harvest period of the agricultural, fishery or rural produce/activity/project being financed.

THE BUNDESBANK SUSTAINABLE FINANCE DATA HUB

The German Central Bank, Deutsche Bundesbank, initiated a central data hub to collect climate related data in early 2020^[1] and successfully completed the procurement of climate-related data on behalf of all the central banks of the European System of Central Banks (ESCB) in March 2022^[2].

This initiatives seek to collect and examine market data that fulfill the internal demand of different divisions within the Bundesbank, especially analytical work concerning climate-related issues. The Sustainable Finance Data Hub operates as a specialized division under the statistics directorate, catering to diverse user requirements within the central bank. Data are made available through a central database and Bundesbank employees can request access to this data through the Data Hub. Furthermore, it serves as the initial point of contact for any inquiries related to methodology.

Process on data gathering is employed using a multi-source approach, aimed to create a comprehensive collection of indicators and data sources. Two or more distinct data sources can supplement each other in terms of the metrics they offer and serve a better coverage of company-level data. The Bundesbank filed a brief survey among data users and found out that over 70 percent of respondents do in fact work with data from both providers. Users find it valuable to have access to information on the data provider's platform to gain insights from the available data and obtain methodological information.

The Bundesbank's green finance dashboard brings together mostly publicly available data, which are often originated from scattered

data sources. The dashboard primarily focuses on comparing Germany to the rest of the European Union (EU) and encompasses financial, real economic, and climate-related indicators. Graphs and the underlying data can be downloaded from the Bundesbank statistics website^[3]. The dashboard is used as a tool to make the development of green finance more transparent to the public. Moreover, the Bundesbank contributes to national and international discourse about sustainable finance related data issues and actively supports initiatives to close data gaps.

In order to expand the ongoing initiatives and encourage the use of digitalization to address gaps in climate-related data, the Bundesbank explores innovative climate data generation in various projects. For example, the Bundesbank collaborates together with Banco de España and the ECB on a project hosted by the BIS Innovation Hub, which will enable climate risk analysis through Natural Language Processing^[4]. Additionally, the Bundesbank cooperates with academic partners, LMU Munich and TU Darmstadt, to examine issues related to sustainability disclosure reports and to extract information of satellite data. The long-term statistical response will gain greater significance as more voluntary and mandatory climate-related disclosure initiatives are actively progressing.

- [1] [The Bundesbank's Sustainable Finance Data Hub, International Conference on "Statistics for Sustainable Finance", co-organised with the Banque de France and the Deutsche Bundesbank 14-15 September 2021, Paris](#)
- [2] [Climate-related data successfully procured, Key milestone reached for incorporating climate factors, Deutsche Bundesbank, March 2022.](#)
- [3] [Bundesbank Green Finance Dashboard, Accessed 8 September 2023.](#)
- [4] [Project Gaia: Enabling climate risk analysis](#)





Annexes



ANNEX 1: COUNTRIES AND INSTITUTIONS COVERED

REGION / COUNTRY	INSURANCE SUPERVISOR	BANKING SUPERVISOR	CENTRAL BANK
AMERICAS			
BERMUDA	Bermuda Monetary Authority (BMA)	<i>Not assessed</i>	<i>Not assessed</i>
BRAZIL	Superintendência de Seguros Privados (SUSEP)	Banco Central do Brasil (BCB)	
CANADA	Office of the Superintendent of Financial Institutions (OSFI)		Bank of Canada (BoC)
CHILE	Comisión para el Mercado Financiero (CMF)		Banco Central de Chile
COLOMBIA	Superintendencia Financiera de Colombia (SFC)		Banco de la República (BANREP)
COSTA RICA	Superintendencia General de Seguros de Costa Rica (SUGESE)	Superintendencia General de Entidades Financieras (SUGEF)	Banco Central de Costa Rica (BCCR)
MEXICO	Comisión Nacional de Seguros y Fianzas (CNFS)	Comisión Nacional Bancaria y de Valores (CNBV)	Banco de México (Banxico)
PARAGUAY	<i>Not assessed</i>	Banco Central del Paraguay (BCP)	
UNITES STATES OF AMERICA	Federal Insurance Office (FIO)	Office of the Comptroller of the Currency (OCC)	The Federal Reserve (FED)
	Federal Deposit Insurance Corporation (FDIC)	The Federal Reserve (FED)	
NEW YORK	The New York State Department of Financial Services (DFS)	Office of the Comptroller of the Currency (OCC)	Federal Reserve Bank of New York
CALIFORNIA	California Department of Insurance (CDI)	Federal Reserve Bank of New York	
	California Department of Financial Protection and Innovation (DFPI)	Office of the Comptroller of the Currency (OCC)	Federal Reserve Bank of San Francisco
EMEA			
DENMARK	Danish Financial Supervisory Authority		Danmarks Nationalbank
EUROPEAN UNION	European Insurance and Occupational Pensions Authority (EIOPA)	European Banking Authority (EBA)	European Central Bank (ECB)
		European Central Bank (ECB)	
FRANCE	Autorité de contrôle prudentiel et de résolution (ACPR)		Banque de France (BDF)
GERMANY	Federal Financial Supervisory Authority (BaFin)		Deutsche Bundesbank
GREECE		Bank of Greece	
HUNGARY		Magyar Nemzeti Bank (MNB)	
ITALY	Institute for the Supervision of Insurance		Banca d'Italia
KENYA	Insurance Regulatory Authority (IRA)		Central Bank of Kenya
LUXEMBOURG	Commissariat aux Assurances (CAA)	Commission de Surveillance du Secteur Financier (CSSF)	Banque centrale du Luxembourg (BCL)
MOROCCO	The Supervisory Authority for Insurance and Social Welfare (ACAPS)		Bank Al-Maghrib
NETHERLANDS		De Nederlandsche Bank (DNB)	
NORWAY	Finanstilsynet (Financial Supervisory Authority of Norway)		Norges Bank
PORTUGAL	Autoridade de Supervisão de Seguros e Fundos de Pensões		Banco de Portugal
SAUDI ARABIA	<i>Not assessed</i>		Saudi Central Bank (SAMA)
SLOVENIA	<i>Not assessed</i>		Banka Slovenije (BSI)
SOUTH AFRICA	South African Reserve Bank - Prudential Authority		South African Reserve Bank (SARB)
SPAIN	Dirección General de Seguros y Fondos de Pensiones		Banco de España
SWEDEN	Finansinspektionen (The Financial Supervisory Authority)		Sveriges Riksbank
SWITZERLAND	Swiss Financial Market Supervisory Authority (FINMA)		Swiss National Bank (SNB)
UNITED ARAB EMIRATES	Central Bank of the UAE, Dubai Financial Services Authority (DFSA) for the Dubai International Financial Centre (DIFC), Financial Services Regulatory Authority (FSRA) for Abu Dhabi		Central Bank of the UAE
UNITED KINGDOM	Global Market (ADGM)		Bank of England (BoE)
ZAMBIA	Prudential Regulation Authority (PRA)		Bank of Zambia
ASIA PACIFIC			
AUSTRALIA	Australian Prudential Regulation Authority (APRA)		Reserve Bank of Australia (RBA)
CHINA	China Banking and Insurance Regulatory Commission (CBIRC)		People's Bank of China (PBoC)
HONG KONG	Insurance Authority HK		Hong Kong Monetary Authority (HKMA)
INDIA	Insurance Regulatory and Development Authority		Reserve Bank of India (RBI)
INDONESIA	Otoritas Jasa Keuangan (OJK)		Bank Indonesia (BI)
JAPAN	Financial Services Agency (FSA)		Bank of Japan (BOJ)
MALAYSIA		Bank Negara Malaysia (BNM)	
NEW ZEALAND		Reserve Bank of New Zealand (RBNZ)	
PHILIPPINES	Insurance Commission		Bangko Sentral ng Pilipinas (BSP)
SINGAPORE		Monetary Authority of Singapore (MAS)	
SOUTH KOREA	Financial Supervisory Service (FSS)		Bank of Korea (BOK)
TAIWAN	Financial Supervisory Commission	<i>Not assessed</i>	<i>Not assessed</i>
THAILAND	Office of Insurance Commission	Bank of Thailand (BOT)	
TÜRKIYE	Insurance and Private Pension Regulation and Supervision Agency (SEDCK)	Banking Regulation and Supervision Agency (BDDK)	Central Bank of the Republic of Türkiye

ANNEX 2: SUSREG INDICATORS FOR BANKING

BANKING INDICATORS	
MICRO-PRUDENTIAL SUPERVISION	
SCOPE & IMPLEMENTATION	
1.1.0	Principle-based regulations or supervisory expectations related to sustainable banking have been issued and are applicable to all supervised commercial banks.
1.1.1	The regulations or supervisory expectations cover a broad range of environmental and social (E&S) issues.
1.1.2	The regulations or supervisory expectations reflect both the expected impact of E&S issues on the bank's risks and value creation, and the impacts of the bank's activities on E&S issues (double materiality assessment).
1.1.3	The regulations or supervisory expectations extend beyond lending to cover other financial products & services provided by banks.
1.1.4	The supervisor regularly tracks progress and assesses the banks' implementation of E&S regulations or supervisory expectations.
1.1.5	Public consultation was carried out prior to the official issuance of E&S regulations or supervisory expectations.
STRATEGY & GOVERNANCE	
1.2.1	Banks are expected to integrate E&S considerations in their business strategy, consistent with the size and nature of their operations.
1.2.2	Banks are expected to consider E&S risks when preparing their board-approved risk appetite statement, supported by quantitative limits and qualitative expectations.
1.2.3	Banks are expected to extend E&S consideration beyond short term (1 to 5 years) to medium (5 to 10 years) and longer term (10 to 30 years) in their business and risk management.
1.2.4	Banks are expected to regularly provide their board with relevant information related to the implementation of their E&S strategy.
1.2.5	Banks are expected to include criteria related to their E&S strategy implementation in their appraisal and remuneration policy.
1.2.6	Banks are expected to dedicate staff and resources to the definition, development and implementation of their E&S strategy.
1.2.7	The supervisor has included E&S considerations in the appointment of board members of banks.
1.2.8	Banks are expected to define the roles and responsibilities of the board involved in the oversight of the E&S strategy.
1.2.9	Banks are expected to define the roles and responsibilities of the executive management for the implementation of the E&S strategy.
1.2.10	Banks are expected to include E&S considerations in the roles and responsibilities of most core functions (incl. senior management) in areas such as lending, savings/deposits, investments and risk management.

1.2.11	Banks are expected to conduct regular training on relevant E&S issues for their board, senior management, business lines and functions, as well as broader staff.
1.2.12	Banks are expected to engage stakeholders (incl. civil society representatives) and consider their views on relevant E&S issues.
1.2.13	The supervisor expects banks to embed sustainability considerations in their existing code of conduct, investment guidelines, lending guidelines and risk guidelines (rather than only as separate documents).
POLICIES & PROCESSES	
1.3.1	Banks are expected to develop and implement sector policies outlining minimum E&S requirements for their clients, particularly in sectors with high E&S risks and impacts.
1.3.2	Banks are expected to refer to and apply internationally recognized sustainability standards and certification schemes in their E&S sector policies.
1.3.3	Banks are expected to engage with and support their clients on the adoption of best practices, based on internationally recognized sustainability standards and certification schemes.
1.3.4	Specific guidelines or checklists covering the banks' activities in sectors with high E&S risks and impacts have been issued by the supervisor.
1.3.5	Banks are expected to integrate E&S considerations in their decision-making and risk management processes and policies.
1.3.6	The supervisor asks banks whether and how they integrate deforestation and wider habitat conversion issues in their decision-making, risk management processes and policies.
1.3.7	Banks are expected to put in place internal controls to manage E&S risks, in accordance with the three lines of defence approach.
1.3.8	Banks are expected to put in place an internal process to monitor and address situations where clients are not compliant with the banks' E&S policies that are based on applicable laws and regulations, or internationally recognized science-based scenarios and findings (e.g., IEA 2050 scenario outlining the immediate stop of fossil fuel exploration and expansion projects).
1.3.9	Banks are expected to seek the inclusion of clauses (e.g., covenants, representations & warranties) related to E&S issues in the loan documentation for bilateral and syndicated credit facilities.
1.3.10	Banks are expected to adopt and implement an active client engagement approach*, in relation to E&S considerations for lending and investment activities.
1.3.11	The supervisor expects banks to develop systems that are integrated in the banking group's broader data governance and IT infrastructure to effectively collect and aggregate E&S risk and impact data.
1.3.12	The supervisor asks banks whether and how they integrate water-related risks in their decision-making, risk management processes and policies.

PORTFOLIO RISK & IMPACT	
1.4.1	Banks are expected to continually assess, manage and mitigate their portfolio-level exposure to material E&S risks.
1.4.2	Banks are expected to continually assess, manage and mitigate their portfolio-level exposure to material E&S risks, by using science-based, forward-looking scenario analysis and stress testing over the short- (1 to 5 years) medium- (5 to 10 years) and the long-term (10 to 30 years).
1.4.3	Banks are expected to continually assess, manage and mitigate the material negative E&S impacts associated with their business relationships, at the portfolio level.
1.4.4	Banks are expected to set climate science-based targets and keep up to date with the latest climate science, to align their portfolios with the objectives of the Paris Agreement.
1.4.5	Banks are expected to set science-based targets to mitigate negative environmental impacts beyond climate, at the portfolio level.
1.4.6	Banks are expected to assess and mitigate reputation and litigation risks associated with E&S considerations.
1.4.7	Where banks outsource their E&S risk analysis to third parties, they are expected to retain/ exercise ultimate oversight and control of these third parties. Banks are expected to validate the analysis by third parties and be fully accountable to any decisions influenced by or derived from the analysis.
MICRO-PRUDENTIAL SUPERVISION (RULE-BASED)	
1.5.1	Banks are expected to integrate E&S considerations in their Internal Capital Adequacy Assessment Process (ICAAP).
1.5.2	Minimum capital requirements or capital add-ons for banks incorporate E&S considerations, through a differentiated risk-based approach.
1.5.3	Banks are expected to integrate E&S considerations in their liquidity risk management process.
1.5.4	Liquidity ratios are adjusted to take E&S considerations into account, through a differentiated risk-based approach.
DISCLOSURE & TRANSPARENCY	
1.6.1	Banks are expected to publicly disclose how E&S considerations are integrated in their business strategy, governance (including remuneration), policies and risk management processes.
1.6.2	Banks are expected to publicly disclose their time-bound transition plans to reach set strategies and objectives pertaining to E&S issues.
1.6.3	Banks are expected to use internationally recognized sustainability reporting frameworks to guide their public disclosures.
1.6.4	Banks are expected to include information on their E&S strategy and its implementation in their annual report, including non-achieved targets and taken measures.

1.6.5	Banks are expected to publicly disclose their credit exposure by industry sub-sectors, based on international industry classification systems.
1.6.6	Banks are expected to publicly disclose the share of their total lending portfolio that is aligned with existing classification systems for sustainable or unsustainable activities (taxonomies).
1.6.7	Banks are expected to report publicly on their portfolio-level exposure to material E&S risks and the associated mitigation measures.
1.6.8	Banks are expected to report publicly on the material negative E&S impacts associated with their business relationships, at the portfolio level.
1.6.9	Banks are expected to seek external assurance for their E&S public reporting and disclosures.
MACRO-PRUDENTIAL SUPERVISION	
1.7.1	The supervisor has assessed the exposure of banks to material E&S risks and the implications for financial system stability, based on forward-looking scenario analysis and stress testing.
1.7.2	The supervisor has published its methodology for forward-looking scenario analysis and stress testing for public consultation.
1.7.3	The supervisor has published the aggregated results of its stress testing exercise on material E&S risks, as well as its recommendations.
1.7.4	The supervisor has developed specific risk indicators to monitor the exposure of banks to material E&S risks.
1.7.5	The supervisor has issued prudential rules to limit the exposure of banks to certain activities, in order to prevent and protect against the build-up of systemic risk, based on E&S considerations.
1.7.6	Specific capital requirements for banks incorporate a macro-prudential buffer for systemic E&S risks.
LEADERSHIP & INTERNAL ORGANISATION	
1.8.1	The supervisor is a member of the Network for Greening the Financial System (NGFS).
1.8.2	The supervisor has published an official E&S strategy or roadmap outlining a science-based transition plan with associated measures for contributing to a net-zero and nature-positive financial centre to address E&S risks and opportunities in the financial sector, in line with its mandate.
1.8.3	The supervisor has established an internal organisation and allocated resources to the implementation of its E&S strategy or roadmap.
1.8.4	The supervisor has conducted studies to assess the banking sector's exposure to, and management of, E&S risks, and published its conclusions and recommendations.
1.8.5	The supervisor goes beyond measuring conventional risk exposure to regularly assessing the alignment of the banking sector to global sustainability goals.
1.8.6	The supervisor provides training on E&S issues to key staff, notably for senior management and supervisory departments.

1.8.7	The supervisor has conducted and published studies to analyse the transmission channels between E&S risks and the economy and the financial system.
1.8.8	The supervisor actively supports initiatives to address E&S data availability and quality issues, including through the promotion of open-source solutions.
1.8.9	The supervisor has put in place initiatives on Just Transition, through for example, its supervisory expectation, strategy, study, or other forms of initiatives.
CENTRAL BANKING	
MONETARY POLICY	
2.1.1	The central bank takes E&S considerations into account when implementing corporate asset purchase programs.
2.1.2	The central bank takes E&S considerations into account in its collateral framework.
2.1.3	The central bank integrates E&S considerations in the management of its foreign exchange reserves portfolio.
2.1.4	The central bank offers subsidised loans or preferential targeted refinancing lines based on E&S considerations.
2.1.5	The central bank takes E&S considerations into account in determining reserve requirements for banks.
LEADERSHIP & INTERNAL ORGANISATION	
2.2.1	The central bank is a member of the Network for Greening the Financial System (NGFS).
2.2.2	The central bank has defined science based climate and environmental targets as part of its objectives beyond conventional ones (e.g. relating to price stability, full employment).
2.2.3	The central bank has published an official strategy or roadmap of a science-based transition plan with associated measures for designing a net-zero and nature-positive financial centre, in line with its mandate.
2.2.4	The central bank regularly reports publicly on their exposure to and management of climate-related risks and opportunities, along with the TCFD recommendations.
2.2.5	The central bank has established an internal organisation and allocated resources to the implementation of its E&S strategy or roadmap.
2.2.6	The central bank assesses and discloses the exposure of its portfolios to E&S risks (for its policy, own, pension and third-party portfolios as applicable).
2.2.7	The central bank integrates E&S considerations in its asset management practices (for its own, pension and third-party portfolios as applicable).
2.2.8	The central bank publicly discloses the share of its own portfolio that is aligned with existing classification systems for sustainable or unsustainable activities (taxonomies).

2.2.9	The central bank has a phase-out plan on assets linked to the most-environmentally harmful activities in its corporate asset purchase program and asset management practice (for its own portfolio, pension fund, and third-party assets as applicable)
2.2.10	The central bank has put in place initiatives on Just Transition, through for example, its strategy, study, or other forms of initiatives.
ENABLING ENVIRONMENT	
3.1.1	A multi-stakeholder sustainable finance initiative is in place, involving representatives from the financial industry, regulatory and supervisory authorities, as well as from civil society.
3.1.2	The central bank, supervisor or banking/ insurance association is supporting capacity building efforts for the financial industry, on sustainable banking and insurance practices and related aspects.
3.1.3	A classification system for sustainable activities (taxonomy) is in place and has been developed following a science-based and multi-stakeholder process.
3.1.4	A classification system for unsustainable activities (taxonomy) is in place and has been developed following a science-based and multi-stakeholder process.
3.1.5	Non-financial corporates are required to report on current and planned activities according to internationally or nationally recognized sustainability reporting standards and definitions.
3.1.6	Non-financial corporates are required to publish science-based transition plans.
3.1.7	A carbon pricing mechanism is being implemented in the country.
3.1.8	There is a national-level sustainability strategy, and financial institutions encouraged to make and adhere to net-zero transition plans.
3.1.9	Regulations or guidelines covering the issuance or provision of sustainable financial products are in place and are based on standards developed following a science-based and multi-stakeholder process.
3.1.10	Targets or incentives are in place for banks to support the transition to a net-zero and nature-positive economy, by engaging with hard to abate sectors without substitutes, channelling capital into innovative technological and nature-based solutions, or into certain industry on the basis of sustainability considerations.
3.1.11	Regulations or guidelines are in place for Small Medium Enterprise (SMEs) on integrating E&S risks into business operations
3.1.12	The government has issued sovereign sustainable bonds in line with recognized best standards, pledging alignment and providing reporting according to existing official taxonomy{

ANNEX 3: SUSREG INDICATORS FOR INSURANCE

INSURANCE INDICATORS	
MICRO-PRUDENTIAL SUPERVISION	
SCOPE & IMPLEMENTATION	
1.1.0	The principle-based regulations or supervisory expectations related to sustainable insurance which have been issued are applicable to all supervised insurers.
1.1.1	The regulations or supervisory expectations cover a broad range of environmental and social (E&S) issues.
1.1.2	The regulations or supervisory expectations reflect both the expected impact of E&S issues on the insurer's risks and value creation, and the impacts of the insurer's activities on E&S issues ('double materiality assessment').
1.1.3	The supervisor tracks insurance companies' progress against regulatory/supervisory E&S expectations and addresses a corresponding report to the companies.
1.1.4	Public consultation was carried out prior to the official issuance of E&S regulations or supervisory expectations.
STRATEGY & GOVERNANCE	
1.2.1	Insurers are expected to integrate E&S considerations in their business and risk strategy, consistent with the size and nature of their operations.
1.2.2	Insurers are expected to consider E&S risks when preparing their Board-approved risk appetite statement, supported by quantitative limits and qualitative expectations.
1.2.3	Insurers are expected to extend E&S consideration beyond the short term (1 to 5 years) to the medium (5 to 10 years) and the longer term (10 to 30 years) in their business and risk strategy.
1.2.4	Insurers are expected to regularly provide their board with relevant information related to the implementation of their E&S strategy.
1.2.5	Insurers are expected to include criteria related to their E&S strategy implementation in their appraisal and remuneration policy.
1.2.6	Insurers are expected to dedicate staff and resources to the definition, development and implementation of their E&S strategy.
1.2.7	The supervisor has included E&S considerations in appointment of board members of insurance companies.
1.2.8	Insurers are expected to define the roles and responsibilities of the board involved in the oversight of the E&S strategy.
1.2.9	Insurers are expected to define the roles and responsibilities of the executive management for the implementation of the E&S strategy.

1.2.10	Insurers are expected to include E&S considerations in the roles and responsibilities of most core functions (incl. senior management) in areas such as actuarial, investment, underwriting, claims management and risk management.
1.2.11	Insurers are expected to conduct regular training on relevant E&S issues for their board, senior management, business lines and functions, as well as broader staff.
1.2.12	Insurers are expected to conduct stakeholder engagement on relevant E&S issues, incl. with civil society representatives and consider their views on relevant E&S issues.
1.2.13	The supervisor expects insurers to embed sustainability considerations in their existing code of conduct, investment guidelines, underwriting guidelines and risk guidelines (rather than only as separate documents).
POLICIES & PROCESSES	
1.3.1	Insurers are expected to develop and implement sector policies outlining minimum E&S requirements for their insurance clients and investee companies, particularly in sectors with high E&S risks and impacts.
1.3.2	Insurers are expected to refer to and apply internationally recognized sustainability standards and certification schemes in their E&S sector policies.
1.3.3	Insurers are expected to engage with and support their insurance clients and investee companies in the adoption of best E&S practices, based on internationally recognized sustainability standards and certification schemes.
1.3.4	Specific guidelines or checklists covering insurers' activities in sectors with high E&S risks and impacts have been issued by the supervisor.
1.3.5	Insurers are expected to integrate E&S impact considerations in their decision-making, risk management processes and policies.
1.3.6	The supervisor asks insurers whether and how they integrate deforestation and wider habitat conversion issues in their decision-making, risk management processes and policies.
1.3.7	Insurers are expected to put in place an internal control framework to manage E&S risks, in accordance with the three lines of defence approach.
1.3.8	Insurers are expected to put in place an internal process to monitor and address situations where their insurance clients or investee companies are not compliant with the insurer's E&S sector policies that are based on applicable laws and regulations, or with internationally recognized science-based scenarios and findings (e.g., IEA 2050 scenario outlining the immediate stop of fossil fuel exploration and expansion projects).

1.3.9	Insurers are expected to adopt and implement an active client engagement approach, in relation to E&S considerations for their investment and underwriting activities.
1.3.10	The supervisor expects insurers to develop systems that are integrated in the insurance group's broader data governance and IT infrastructure to effectively collect and aggregate E&S risk and impact data.
PORTFOLIO RISKS & IMPACTS	
1.4.1	Insurers are expected to continually assess, manage and mitigate the level of exposure of their portfolios to material E&S risks.
1.4.2	Insurers are expected to continuously assess and manage their exposure to material E&S risks, by using science-based forward-looking scenario analysis and stress testing, over both the short- (1 to 5 years) medium- (5 to 10 years) and the long-term (10 to 30 years).
1.4.3	Insurers are expected to continually assess, manage and mitigate the material negative E&S impacts associated with their business relationships, at the portfolio level.
1.4.4	Insurers are expected to set science-based climate targets and keep up to date with the latest climate science to align their portfolios with the objectives of the Paris Agreement.
1.4.5	Insurers are expected to set science-based targets to mitigate negative environmental impacts beyond climate, at the portfolio level.
1.4.6	Insurers are expected to analyse the impacts of E&S considerations on the concentration of risks between investment and underwriting activities, and to factor E&S risk in their asset-liability management (ALM).
1.4.7	Insurers are expected to have specific response plans for managing significant additional claims associated with natural catastrophes.
1.4.8	Insurers are expected to assess and mitigate reputation and litigation risks associated with E&S considerations.
1.4.9	Where insurers outsource their E&S risk analysis to third parties, they are expected to retain/exercise ultimate oversight and control of these third parties. Insurers are expected to validate the analysis by third parties and be fully accountable to any decisions influenced by or derived from the analysis.
1.4.10	The supervisor expects insurers to analyse, and where necessary mitigate, the concentration of E&S risks in their portfolios
1.4.11	The supervisor expects insurers to reflect E&S risks in their pricing.
1.4.12	Insurers are encouraged to include in their underwriting and pricing practices incentives for their clients to enhance their resilience to E&S risks.

MICRO-PRUDENTIAL SUPERVISION (RULE-BASED)	
1.5.1	Insurers are expected to integrate both short- and long-term E&S considerations in their Enterprise Risk Management framework (e.g., in their Own Risk Solvency Assessment or ORSA).
1.5.2	Solvency Capital Requirements for insurers incorporate E&S considerations, through a differentiated risk-based approach.
1.5.3	Where applicable, the supervisor has specific expectations for reinsurers, reflecting their role as ultimate carriers of a number of systemic E&S risks.
1.5.4	Insurers are expected to integrate E&S considerations and consumers' E&S preferences when developing and distributing new products.
DISCLOSURE & TRANSPARENCY	
1.6.1	Insurers are expected to publicly disclose how E&S considerations are integrated in their business strategy, governance (including remuneration), policies and risk management processes.
1.6.2	Insurers are expected to publicly disclose their time-bound transition plans to reach set strategies and objectives pertaining to E&S issues.
1.6.3	Insurers are expected to use internationally recognized sustainability reporting frameworks to guide their public disclosures.
1.6.4	Insurers are expected to include information on their E&S strategy and its implementation in their annual report, including non-achieved targets and taken measures.
1.6.5	Insurers are expected to publicly disclose their exposure by industry sub-sectors, based on international industry classification systems.
1.6.6	Insurers are expected to publicly disclose the share of their total portfolio that is aligned with existing classification systems for sustainable or unsustainable activities (taxonomies).
1.6.7	Insurers are expected to report publicly on their exposure to material E&S risks and the associated mitigation measures.
1.6.8	Insurers are expected to report publicly on the material negative E&S impacts associated with their activities.
1.6.9	The supervision of conduct risk for insurance products sold by insurers includes provisions related to addressing greenwashing risks.
1.6.10	Insurers are expected to seek external assurance for their E&S public reporting and disclosures.
MACRO-PRUDENTIAL SUPERVISION	

1.7.1	The supervisor has assessed the exposure of insurers to material E&S risks and the implications for financial system stability, by using forward-looking scenario analysis and stress testing.
1.7.2	The supervisor has published for consultation its methodology for forward-looking scenario analysis and stress testing.
1.7.3	The supervisor has published the aggregated results of its stresstesting exercises on material E&S risks, as well as its recommendations.
1.7.4	The supervisor has developed specific risk indicators and tools to monitor the exposure of the insurance sector to material E&S risks.
1.7.5	The supervisor has issued prudential rules to limit the exposure of insurers to certain activities, in order to prevent and protect against the build-up of systemic risk, based on E&S considerations.
1.7.6	The supervisor has issued obligatory insurance mandates (or similar binding measures such as moratoriums on non-renewals) in relation to E&S risks.
1.7.7	The supervisor monitors the concentration of E&S risks between the various entities of integrated financial groups (e.g., bancassurance).
1.7.8	Solvency Capital Requirements for insurers incorporate a macro-prudential buffer for systemic E&S risks.
LEADERSHIP & INTERNAL ORGANISATION	
1.8.1	The supervisor is a member of the Network for Greening the Financial System (NGFS) and the Sustainable Insurance Forum (SIF).
1.8.2	The supervisor has published an official E&S strategy or roadmap outlining a science-based transition plan with associated measures for contributing to a net-zero and nature-positive financial sector, in line with its mandate.
1.8.3	The supervisor has established an internal organisation and allocated resources to the implementation of its E&S strategy or roadmap.
1.8.4	The supervisor has conducted studies to assess insurers' exposure to and management of E&S risks, and published its conclusions and recommendations.
1.8.5	The supervisor goes beyond measuring conventional risk exposure to regularly assessing the alignment of the insurance sector to global sustainability goals.
1.8.6	The supervisor provides training on E&S issues to key staff, notably for senior management and supervisory departments.
1.8.7	The supervisor has conducted and published studies to analyse the transmission channels between E&S risks and the economy and financial system.

1.8.8	The supervisor actively supports initiatives to address E&S data availability and quality issues, including through the promotion of open-source solutions.
1.8.9	The supervisor organises the exchange of information with reinsurers (e.g., through joint working groups) to leverage their specific E&S expertise.
1.8.10	The supervisor has put in place initiatives on Just Transition, through for example, its strategy, study, or other forms of initiatives.
ENABLING ENVIRONMENT	
3.1.1	A multi-stakeholder sustainable finance initiative is in place, involving representatives from the financial industry, regulatory and supervisory authorities, as well as from civil society.
3.1.2	The central bank, supervisor or banking/ insurance association is supporting capacity building efforts for the financial industry, on sustainable banking and insurance practices and related aspects.
3.1.3	A classification system for sustainable activities (taxonomy) is in place and has been developed following a science-based and multi-stakeholder process.
3.1.4	A classification system for unsustainable activities (taxonomy) is in place and has been developed following a science-based and multi-stakeholder process.
3.1.5	Non-financial corporates are required to report on current and planned activities according to internationally or nationally recognized sustainability reporting standards and definitions.
3.1.6	Non-financial corporates are required to publish science-based transition plans.
3.1.7	A carbon pricing mechanism is being implemented in the country.
3.1.8	There is a national-level sustainability strategy, and financial institutions encouraged to make and adhere to net-zero transition plans.
3.1.9	Regulations or guidelines covering the issuance or provision of sustainable financial products are in place and are based on standards developed following a science-based and multi-stakeholder process.
3.1.10	Regulations or guidelines are in place for Small Medium Enterprise (SMEs) on integrating E&S risks into business operations
3.1.11	The government has issued sovereign sustainable bonds in line with recognized best standards, pledging alignment and providing reporting according to existing official taxonomy[
3.1.12	The country is part of regional disaster risk reduction facilities.



OUR MISSION IS TO STOP THE
DEGREDDATION OF THE PLANET'S
NATURAL ENVIRONMENT AND TO BUILD
A FUTURE IN WHICH HUMANS LIVE IN
HARMONY WITH NATURE

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