2024 SUSREG ANNUAL REPORT

AN ASSESSMENT OF SUSTAINABLE FINANCIAL REGULATIONS AND CENTRAL BANK ACTIVITIES

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WWF is one of the world's most respected and experienced conservation organizations, 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, capitalizing 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.

"Over the past 50 years (1970-2020), the average size of monitored wildlife populations has shrunk by 73%, as measured by the Living Planet Index. [...] It is no exaggeration to say that what happens in the next five years will determine the future of life on Earth."

WWF LIVING PLANET REPORT 2024

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"Economies across the globe face substantial risks and vulnerabilities in the wake of climate change. Central banks recognizing the broader implications of these risks for financial stability are constantly assessing and benchmarking the related activities with global standards. Global initiatives like SUSREG assessing progress of financial regulators and supervisors offer pointing references that encourage the adoption of proactive measures for climate change related risks"

THE RESERVE BANK OF INDIA

"The risks are real and they are urgent. The rapid degradation of nature is threatening ecosystems and the services they provide. Services such as clean water, healthy air, food and materials that are all essential to our economies and our very existence as humans. 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 continues."

KLAAS KNOT
President of the Netherlands Bank, at the Launch Event of the NGFS Conceptual Framework on nature-related financial risks, Paris, 7 September 2023

"To fulfil our mandate of keeping prices stable and banks safe, we need to understand the impact that a hotter climate and the degradation of nature are forcing in our economy and financial system. This includes making sure that banks manage climate and nature-related risks properly and exploring changes to our monetary policy instruments and portfolios that reflect the green transition."

THE EUROPEAN CENTRAL BANK

EXECUTIVE SUMMARY

Money continues to flow into activities that contribute to the nature and climate crises, with direct payments, tax incentives, and subsidies that worsen climate change, biodiversity loss, and ecosystem degradation estimated to total nearly US$7 trillion annually[1]. Redirecting finance away from harmful activities and toward activities that contribute to the global goals on nature, climate and sustainable development is essential for ensuring a thriving planet for generations to come.

For this to happen rapidly, at scale and in an orderly fashion, the mobilization of central banks, financial regulators and supervisors is crucial. Building on its experience of working with a wide range of financial sector stakeholders, WWF has developed the Sustainable Financial Regulations and Central Bank Activities (SUSREG) framework to assess the integration of environmental & social considerations in regulatory and supervisory practices, as well as in central banking activities and other measures that support the redirection of financial flows towards more sustainable practices.

This year marks the fourth edition of our in-depth assessment since its inaugural publication in 2021. The assessment's coverage has expanded from 47 jurisdictions in 2023 to 52 in 2024[2]. The assessment and recommendations of this report, serve as an interactive platform for WWF, central banks, and financial supervisors worldwide to discuss gaps, good practices, challenges, and plans to ensure that the financial sector fully accounts for climate- and nature-related risks and opportunities.

The next five years are critical for the future of our planet. While global agreements and solutions exist to set nature on a path to recovery by 2030, current actions fall far short of what's needed. Central banks and financial regulators must step up by integrating nature-related risks into financial frameworks, enforcing stronger regulations to ensure the financial system actively supports the protection and restoration of our natural environment.

[1] WWF, Living Planet Report 2024.
[2] The complete list of countries featured in the 2024 assessment can be found in Annex 1 of this report. Please note that the 2024 SUSREG assessment only includes documents published by the 31st July 2024; any documents issued after the cut-off date were not considered in the assessment.

The following are the key findings from the SUSREG 2024 assessment:

- From 2021 to 2024, **banking supervision** showed the most progress, with an 18% increase in climate-related measures. **Insurance supervision** followed closely, improving by 17% since 2022. However, monetary policy and **central banking activities** has stagnated, with only a modest 4% increase.
- Despite these progress, **most financial regulatory frameworks still lack critical elements**. Nature-related risk drivers, such as deforestation, land conversion, freshwater management, and ocean and marine life protection, are insufficiently addressed. Additionally, key policy instruments such as target-setting and capital requirements remain underutilized.
- **High-income countries**, having greater resources and a historical responsibility for emissions are showing stride in climate commitment with 20 out of 29 high-income countries align with more than 50% of SUSREG's climate criteria in banking supervision, however 14 of them shows less than 50% alignment on nature-related supervision criteria.
- Although climate issues have received the most attention, **even among countries with net-zero targets, 37% of them exhibit weak climate financial supervision,** meeting less than 50% of SUSREG's climate criteria. This highlights an uneven playing field across different jurisdictions.
- **Nature related risks** also pose significant challenges in banking supervision, as 31 out of 50 countries fail to align with more than 50% of SUSREG's environmental criteria. Moreover**, 7 of the top 10 biodiversity hotspot nations** are lagging in banking supervision for nature-related risks, and all 10 are falling short in integrating these risks into their insurance supervision.
- **Social risks**, while acknowledged across financial regulation, remain inadequately managed. Alignment with SUSREG social criteria is alarmingly low, with an average of only 32% for banking supervision and 27% for insurance supervision, underscoring the need for more comprehensive action from all stakeholders.
- **On monetary policy and central banking activities,** central banks have yet to meaningfully integrate climate and environmental considerations into **monetary policy tools,** but they are beginning to phase out harmful assets and enhance portfolio disclosures with a focus on climate issues.
- Additionally, the **countries covered have begun to establish the enabling environment** necessary for transforming financial systems and the broader economy. Approximately 52% of these countries have implemented a sustainable taxonomy, 20% are in the process of developing one, and 36% now require corporations to adopt climate transition plans.

In line with our commitment to net-zero and nature-positive outcomes, the first chapter provides key recommendations for central banks, financial regulators, and stakeholders to drive meaningful change. The report also highlights good practices, offering valuable examples for central banks and supervisors to adapt and implement within their national contexts.

The full assessment results are available at SUSREG interactive website at: **https://www.susreg.panda.org/**

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"We have five years to place the world on a sustainable trajectory before negative feedbacks of combined nature degradation and climate change place us on the downhill slope of runaway tipping points. The risk of failure is real – and the consequences almost unthinkable."

WWF LIVING PLANET REPORT 2024

A REALITY CHECK: ARE WE ON TRACK?

For years, the goal of limiting global temperature rise to 1.5 degrees Celsius has been the cornerstone of international climate efforts. Policymakers and governments worldwide have championed this target as crucial to avoiding the most severe and enduring impacts of the climate crisis. However, the WWF 2024 Living Planet report warns that the current national climate commitments would lead to an average global temperature increase of 3°C by the end of the century[1], inevitably triggering multiple catastrophic tipping points. This estimate assumes full adherence to these pledges—an optimistic outlook considering the Paris Agreement lack enforcement mechanisms for non-compliance.

The crisis extends far beyond climate change, encompassing a dramatic loss of biodiversity. The Kunming-Montreal agreement of 2022 set an ambitious goal aiming to protect 30% of the planet's land and seas by 2030. However, the progress appears far from promising. The Yale University's 2024 Environmental Performance Index presents a grim reality: despite 17% of land and 8% of oceans being designated as protected, biodiversity continues to decline. In 23 countries, more than 10% of protected lands are compromised by agriculture and infrastructure, while in 35 countries, fishing activity within marine protected areas surpasses that outside them[2]. The Living Planet Report 2024 reveals a system in peril with the Living Planet Index shows a catastrophic 73% decline in the average size of monitored wildlife populations over just 50 years (1970-2020).

Deforestation is another critical concern. The 2023 Forest Declaration Assessment highlights that the world is far from the trajectory needed to halt deforestation by 2030. In 2022 alone, 6.6 million hectares of forest were lost—a 21% deviation from the required pace[3]. Moreover, the WWF's Forest Pathways Report 2023 underscores a glaring disparity in global priorities: public funding for environmentally harmful subsidies is at least 100 times greater than the financing allocated to forest preservation[4]. The urgency for action has never been greater. With climate goals slipping out of reach, biodiversity in rapid decline, and deforestation accelerating, the world stands at a critical juncture.

[1] WWF, Living Planet Report 2024.
[2] Yale Center for Environmental Law & Policy, Environmental Performance Index 2024.
[3] The Forest Declaration Assessment, Off Track and Falling Behind: Tracking progress on 2030 forest goals, 2023
[4] WWF, Forest Pathways Report 2023.
[5] UNFCC, UN Climate Change Quarterly Update: Q1 2024.

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GLOBAL COMMITMMENTS: COP16 AND COP29

Global commitments, while ambitious, must be met with stronger enforcement, enhanced funding, and immediate action if we are to safeguard our planet's future. As the world gears up for COP16 this October in Colombia, governments face the critical task of assessing the progress in implementing the Kunming-Montreal Global Biodiversity Framework. This event will be a crucial moment for parties to the Convention to demonstrate how their National Biodiversity Strategies and Action Plans (NBSAPs) align with the Framework's objectives.

COP16 will also focus on refining the monitoring framework and advancing resource mobilization efforts to support the Global Biodiversity Framework. Adequate means of implementation—including financial resources, capacity-building, technical and scientific cooperation, and technology transfer—are vital to fully realizing the Framework's goals. With only a few years remaining to achieve the 2030 targets, the Global Environment Facility (GEF-8) resources will provide crucial support, but additional financial resources are urgently needed. These should be channeled through various mechanisms, including the newly established Global Biodiversity Framework Fund.

Meanwhile, the UN Climate Change body is calling on all parties to develop National Adaptation Plans (NAPs) by 2025 and to demonstrate significant progress in implementing them by 2030. Currently, only 58 developing countries have submitted their NAPs[5], prompting the secretariat to urge more countries to finalize their plans. In the coming months, UN Climate Change will intensify its collaboration with countries through its Regional Collaboration Centres to accelerate the formulation of these plans.

As global leaders converge on these key conferences, the message is clear: we must focus on implementing existing commitments with high ambition to meet our global biodiversity and climate goals. For these strategies to be effective, they must adopt a comprehensive approach that involves all levels of government and society, mirroring the inclusive vision of the framework itself. The success of these effort hinges on robust monitoring, reporting, and review mechanisms, which will be essential for driving evidence-based progress.

WHY CENTRAL BANKS, FINANCIAL SUPERVISORS AND REGULATORS SHOULD TAKE PART?

While governments lead in enacting ambitious climate and biodiversity strategies to achieve the global commitments, central banks and financial regulators have a vital role within their mandates to contribute to these efforts.

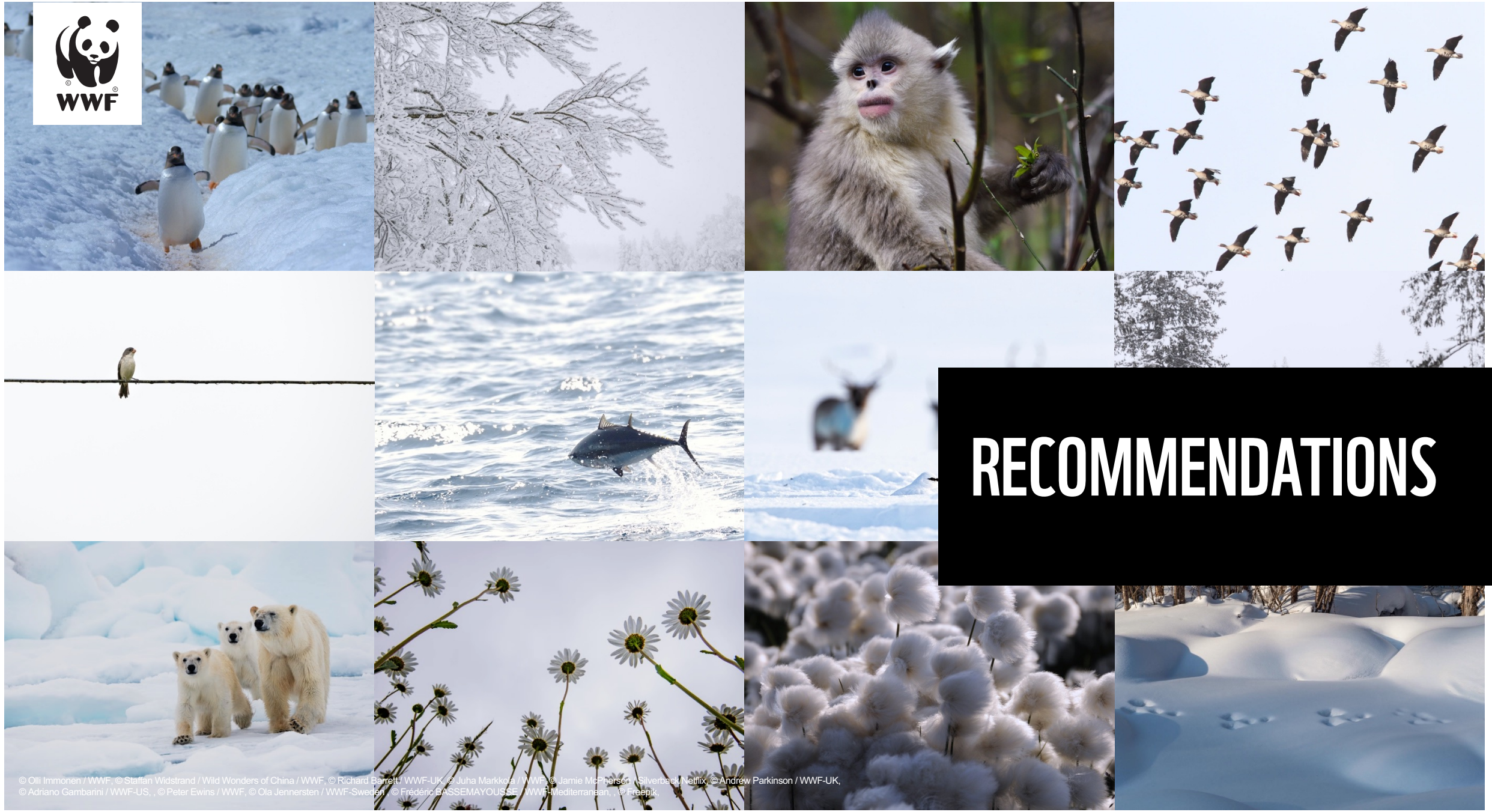
Climate-related and environmental risks are not simply new risk categories; they are fundamental drivers that permeate existing prudential risk categories within the financial sector. Central banks, financial regulators, and supervisors are influential actors in ensuring the stability of the financial system by setting and enforcing regulations. This responsibility includes making sure that financial institutions thoroughly assess and manage all potential risks, particularly those stemming from climate, environmental and social issues.

The climate and environmental crises we face today demand urgent and decisive action. The unprecedented scale and uncertainty of these crises have led to growing calls for a precautionary approach to risk management. Given the profound structural impacts that climate-related and environmental risks pose to the economy and financial systems, central banks and regulators can no longer afford to be passive. They must take proactive measures to address these risks and ensure the financial sector is resilient in the face of these challenges.

SUSREG 2024 ANNUAL REPORT

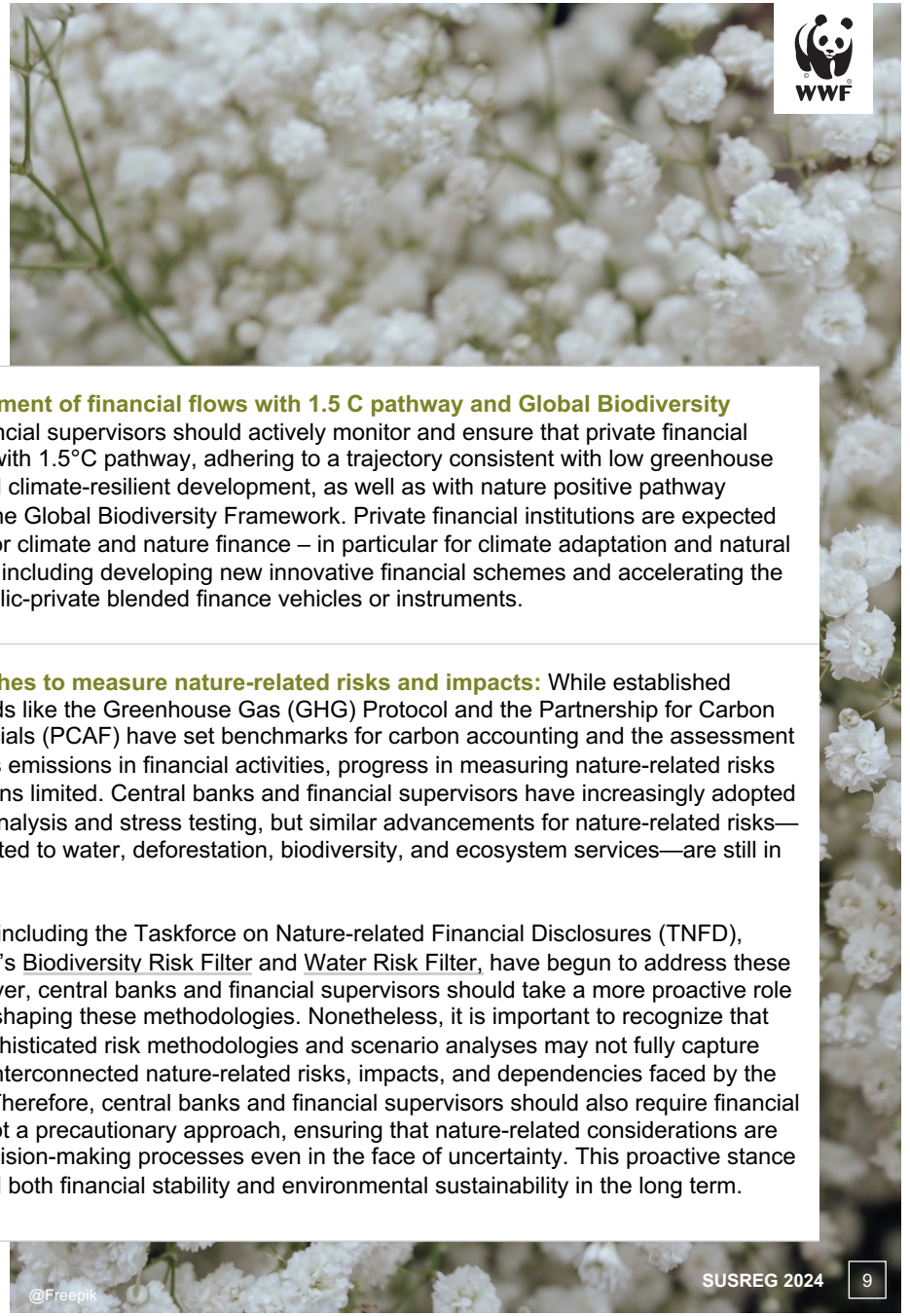
As we reflect on these developments, the SUSREG 2024 Annual Report offers insights into how financial regulators, supervisors and central banks integrate climate, broader environmental, and social considerations into their mandate and operations. The report contains the following parts:

- **Chapter 1:** Recommendations
- **Chapter 2:** SUSREG framework methodology
- **Chapter 3:** Banking supervision
- **Chapter 4:** Central banking
- **Chapter 5:** Insurance supervision
- **Chapter 6:** Enabling environment



RECOMMENDATIONS

FINANCIAL SUPERVISION AND REGULATION



01 **Include external impact considerations into prudential regulation and supervisory expectations:** Double materiality, which accounts for both the sustainability risks faced by financial institutions and their external impacts, is gaining traction in various sustainability disclosure frameworks. However, not all frameworks adopt this perspective—such as the ISSB, which remains focused solely on financial materiality. Despite advancements, double materiality is still largely absent from prudential regulation and supervisory expectations. This gap overlooks the fact that unmanaged negative external impacts from the activities of banks and insurers—such as financing or underwriting thermal coal and fossil fuel expansion—inevitably translate into financial risks. These risks can emerge through micro-level channels like reputational damage and litigation or macro-level channels such as the escalation of physical risks and their systemic repercussions. To address this, all central banks, financial regulators, and supervisors should adopt a double materiality approach in the financial supervision. Effectively managing long-term risks requires considering external impacts, even if this is not explicitly outlined in their mandates.

02 **Mandate climate and nature target setting and transition plans for financial institutions:** Financial supervisors should mandate financial institutions to set credible, science-based Net Zero and Nature Positive targets, including ambitious short-, medium- and long-term net zero and nature positive targets goals aligned with the Paris Agreement and the Global Biodiversity Framework. Supervisors should mandate financial institutions to develop and publicly disclose their transition plans. Additionally, they should provide clear guidance and support to help these institutions create and implement comprehensive climate and nature transition strategies across all asset classes and sectors. These plans should lead to an increased flow of financing toward Net Zero and Nature Positive activities through both innovative and existing financial mechanisms while avoiding environmentally harmful financing, such as deforestation and land conversion. Moreover, financial supervisors must actively assess and address greenwashing risks associated with the disclosure of these transition plans. By ensuring the integrity and transparency of these disclosures, supervisors can help maintain market confidence and drive genuine progress toward sustainable finance.

03 **Monitor the alignment of financial flows with 1.5 C pathway and Global Biodiversity Framework:** Financial supervisors should actively monitor and ensure that private financial flows are aligned with 1.5°C pathway, adhering to a trajectory consistent with low greenhouse gas emissions and climate-resilient development, as well as with nature positive pathway consistency with the Global Biodiversity Framework. Private financial institutions are expected to deploy capital for climate and nature finance – in particular for climate adaptation and natural climate solutions - including developing new innovative financial schemes and accelerating the deployment of public-private blended finance vehicles or instruments.

04 **Develop approaches to measure nature-related risks and impacts:** While established reference standards like the Greenhouse Gas (GHG) Protocol and the Partnership for Carbon Accounting Financials (PCAF) have set benchmarks for carbon accounting and the assessment of greenhouse gas emissions in financial activities, progress in measuring nature-related risks and impacts remains limited. Central banks and financial supervisors have increasingly adopted climate scenario analysis and stress testing, but similar advancements for nature-related risks—such as those related to water, deforestation, biodiversity, and ecosystem services—are still in their infancy.

Private initiatives, including the Taskforce on Nature-related Financial Disclosures (TNFD), Encore, and WWF's Biodiversity Risk Filter and Water Risk Filter, have begun to address these challenges. However, central banks and financial supervisors should take a more proactive role in advancing and shaping these methodologies. Nonetheless, it is important to recognize that even the most sophisticated risk methodologies and scenario analyses may not fully capture the complex and interconnected nature-related risks, impacts, and dependencies faced by the financial system. Therefore, central banks and financial supervisors should also require financial institutions to adopt a precautionary approach, ensuring that nature-related considerations are integrated into decision-making processes even in the face of uncertainty. This proactive stance will help safeguard both financial stability and environmental sustainability in the long term.

FINANCIAL SUPERVISION AND REGULATION cont.

05 **Expand, clarify, and harmonize sustainability disclosure requirements:** In most jurisdictions, sustainability disclosure requirements and ESG-related prudential regulation are progressing in parallel but at different speeds. Disclosure requirements are generally more advanced, and there is a lack of explicit link and harmonized frameworks between the two areas. Globally, the fragmented landscape of sustainability disclosure standards has started to consolidate, but major inconsistencies remain. On the one hand, the IFRS Foundation's International Sustainability Standards Board (ISSB) incorporates an increasing number of preexisting standards such as Sustainability Accounting Standards Board (SASB), Task Force on Climate-related Financial Disclosures (TCFD) and now the UK Transition Plan Taskforce (TPT). The ISSB is partly but not fully interoperable with the more ambitious European Corporate Sustainability Reporting Directive (CSRD) and its European Sustainability Reporting Standards (ESRS), whose scope, level of detail and extraterritoriality are a game changer for the companies who apply it. More ambitious and coordinated policies are needed to turn the growing number of sustainability disclosure requirements into a consistent set of concrete incentives for financial institutions to support the transition.

06 **Address greenwashing risks in the financial sector:** To mitigate the growing risk of greenwashing within financial institutions (FIs), a proactive and multi-layered approach is essential. The financial sector should prioritize transparency and the integration of sustainable practices into core business operations, moving beyond superficial initiatives. Some leading FIs promote sustainability through philanthropic efforts while failing to embed climate and nature considerations into their core business model including lending, investing, and underwriting activities. To address this, regulatory bodies must enforce stringent reporting standards that require institutions to demonstrate how their sustainability commitments are operationalized and linked to their core business. This includes mandating FIs to transparently disclose not only the percentage of their portfolio classified under sustainable taxonomies but also those classified as unsustainable. This would allow the public to assess how much financial capital is being directed towards both green and harmful activities, fostering greater accountability and meaningful action.

07 **Explore the potential and enabling factors of mandatory insurance:** In recent years, natural disasters like floods and wildfires have increased in frequency and severity, a physical trend expected to continue. Meanwhile, technological advancements—such as AI, Big Data, satellite observation, and geolocation—have enabled insurers to develop increasingly individualized risk assessments. However, this trend risks undermining the foundational principle of insurance: mutualization. As a result, the affordability and even insurability of certain risks are being threatened, particularly in vulnerable regions, as demonstrated by the wildfire situation in California.

To address this growing challenge—which could impact both policyholders and financial stability—policymakers, central banks, and financial supervisors should explore the potential for mandatory insurance covering selected property and liability risks (e.g., environmental pollution). Additionally, they should investigate and promote the enabling factors necessary to ensure the long-term viability of such mandates. These factors include systematic risk prevention measures, the development of resilient rebuilding standards, and the use of Public-Private Partnerships or risk-pooling facilities for high-risk, hard-to-insure areas.

08 **Ensure the effectiveness of sustainable finance regulation through proactive supervisory enforcement and external assurance:** The SUSREG framework and its indicators primarily measure the existence and content of sustainable finance regulation, rather than its actual effectiveness and implementation. However, any set of rules is only as good as the degree to which they are applied. While we recognize that most supervisory action and dialogue takes place outside the public eye, central banks and financial supervisors should publicly share their general approach to enforcement and how they will act against financial institutions that do not align with their supervisory expectations (such as warning letters, fines etc.). They should also report on the progress of financial institutions in meeting these expectations, and we introduced this year two new indicators to measure this. In parallel, requirements to seek external assurance or audit of climate and sustainability disclosures also constitute a key indirect enforcement mechanism, and an increasing number of jurisdictions are requiring it or have announced their intention to do so.

MONETARY POLICY AND INTERNAL LEADERSHIP BY CENTRAL BANKS AND FINANCIAL REGULATORS

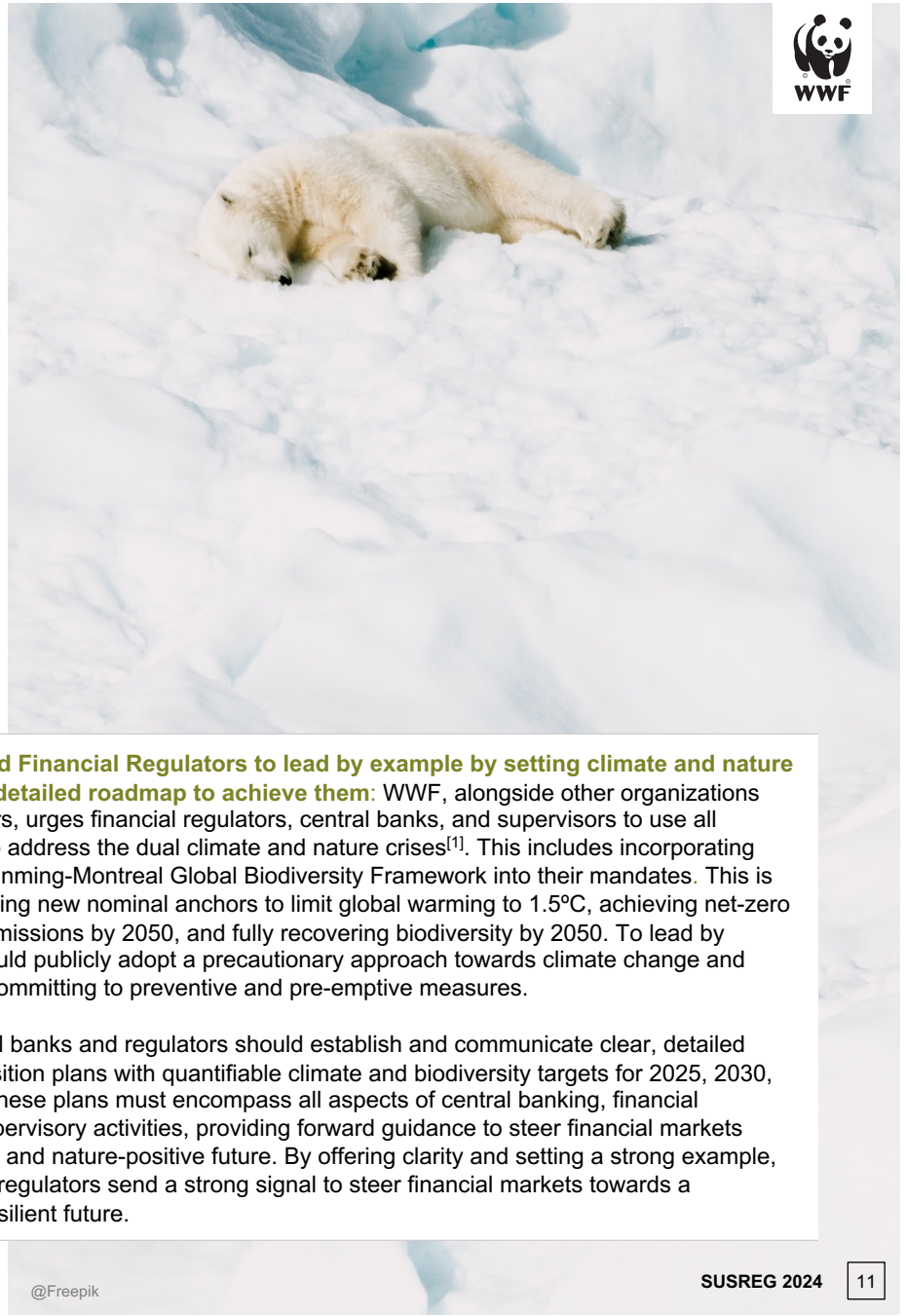
01

Integrate climate, environmental, and social considerations into the allocation of both monetary and non-monetary portfolios and ensure transparent disclosure of the impacts: It is crucial for central banks to adopt sustainable investment approaches for their balance sheets and to green their monetary policies, setting a strong example for the financial sector. This involves integrating environmental criteria into the assets held by central banks and applying these criteria across various monetary policy tools. Specifically, this means incorporating climate change and other environmental considerations into the assets held for monetary policy purposes, the conditionality and collateral accepted for lending facilities, and other related measures. Strategically, central banks must also develop plans to ensure their monetary policy portfolios—such as those related to asset purchases and foreign reserves—are aligned with net-zero and nature-positive targets by 2050.

In addition to these efforts, central banks can further lead by example through transparent disclosure of the climate and nature impacts associated with their monetary and non-monetary policy portfolios. Aligning these disclosures with frameworks such as the Task Force on Climate-related Financial Disclosures (TCFD), the Taskforce on Nature-related Financial Disclosures (TNFD), and relevant taxonomies is particularly important.

02

Central banks should consider establishing Targeted Long-Term Refinancing Operations (TLTRO) programs specifically dedicated to supporting climate and nature-positive outcomes: These programs should integrate both climate and nature-related considerations, drawing on lessons from existing frameworks like the Carbon Emission Reduction Facility (CERF) in China and align with internationally recognized transition finance standards and taxonomies. To qualify, financial institutions must develop and disclose comprehensive transition plans that address both climate and biodiversity impacts. The program should also require robust due diligence to ensure financing does not support environmentally harmful activities, as outlined in frameworks like the WWF's roadmap. Additionally, central banks could differentiate refinancing rates based on the "green performance" of banks, incentivizing those with stronger environmental commitments. Prioritizing SMEs within these TLTRO programs would enhance green financial inclusion, supported by credit guarantees for higher-risk ventures. Regular reviews should be conducted to optimize resource allocation, ensuring the most effective support for sustainable economic transitions.



03

Central Banks and Financial Regulators to lead by example by setting climate and nature target as well as detailed roadmap to achieve them: WWF, alongside other organizations and thought leaders, urges financial regulators, central banks, and supervisors to use all available means to address the dual climate and nature crises[1]. This includes incorporating the goals of the Kunming-Montreal Global Biodiversity Framework into their mandates. This is done by incorporating new nominal anchors to limit global warming to 1.5ºC, achieving net-zero greenhouse gas emissions by 2050, and fully recovering biodiversity by 2050. To lead by example, they should publicly adopt a precautionary approach towards climate change and biodiversity loss, committing to preventive and pre-emptive measures.

In doing so, central banks and regulators should establish and communicate clear, detailed roadmap and transition plans with quantifiable climate and biodiversity targets for 2025, 2030, 2040, and 2050. These plans must encompass all aspects of central banking, financial regulation, and supervisory activities, providing forward guidance to steer financial markets towards a net-zero and nature-positive future. By offering clarity and setting a strong example, central banks and regulators send a strong signal to steer financial markets towards a sustainable and resilient future.

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[1] WWF, Call to Action to Ensure Transition to a Net Zero and Nature Positive Economy, 2022.

ENABLING ENVIRONMENT

01

Policymakers should broaden the mandate of Central Banks and Financial Regulators to include climate and nature-positive goals: While climate and environmental risks already pose threats to financial and price stability, the transition towards a carbon-neutral and nature-positive economy is not clearly stated in the mandates of some central banks and financial regulators. In these cases, policymakers should adapt the mandates to explicitly incorporate support for climate and biodiversity objectives. Without a clear directive, these institutions may lack the authority to prioritize environmental goals within the financial system. Expanding their mandates allows central banks and regulators to systematically integrate environmental considerations into monetary policy, financial supervision, and regulation. This alignment with international agreements like the Paris Agreement and the Global Biodiversity Framework ensures the nation's commitment to global climate and biodiversity objectives. Failure to include these directives could leave the financial sector misaligned with sustainability goals, slowing the green transition and increasing vulnerability to climate-related financial shocks.

02

Governments and international standard setters should synergize efforts to address both climate and nature risks: Climate change and Nature loss represent challenges that are global in nature and require coordinated actions across countries. The lack of consistent approaches and coordinated actions could lead to systemic risks for financial markets and the global economy. Central banks and financial supervisors are already coordinating their effort in different instances, but the role of governments[1] and international standard setters[2] is crucial to ensure harmonization, consistency and effectiveness of climate and nature related risks mitigation. Governments should align and synergize implementation plans from the climate and biodiversity domains—such as Nationally Determined Contributions (NDCs) and National Biodiversity Strategies and Action Plans (NBSAPs)—to maximize societal benefits while setting a clear direction for businesses and the financial sector. In ensuring harmonization and standardization of disclosure, developing consistent regulatory standards that integrates climate and nature, and fostering global coordination, international standard setters can give the transition of our economies the scale and speed it needs to strengthen financial stability in the long term and achieve our global sustainability goals.

03

Policymakers should develop science-based unsustainable and transitional taxonomies and work together to promote harmonization between different sustainable taxonomies around the world: Developing taxonomies that identify environmentally harmful activities is essential for enhancing transparency and accountability in the financial sector. By requiring financial institutions to disclose their lending and investment activities based on these taxonomies, stakeholders can better understand the extent to which funds are still being directed toward harmful practices. This transparency is key to redirecting capital away from harmful activities and encouraging a shift toward sustainability. Sustainable taxonomies should also help identify transitional activities that require financing to adapt and transition to more sustainable business models.

Additionally, promoting the harmonization of sustainable taxonomies on a global scale is vital for ensuring consistency across borders. Currently, the landscape of taxonomies is fragmented, with significant challenges arising from the lack of comparability between regions and sectors. The absence of global consensus and coordination on criteria, indicators, and thresholds for measuring sustainability exacerbates this issue. An activity deemed sustainable in one jurisdiction may not be recognized as such in another or may be subject to varying levels of scrutiny. This lack of harmonization not only impedes efficient cross-border capital flows but also creates confusion in the market. In the last few years, there has been growing initiatives on this including the China-Singapore and EU-China common ground taxonomy.

[1] Including the G20.
[2] Including the Financial Stability Board (FSB), Coalition of finance ministers, The Basel Committee on Banking Supervision (BCBS), and the International Association of Insurance Supervisors (IAIS)

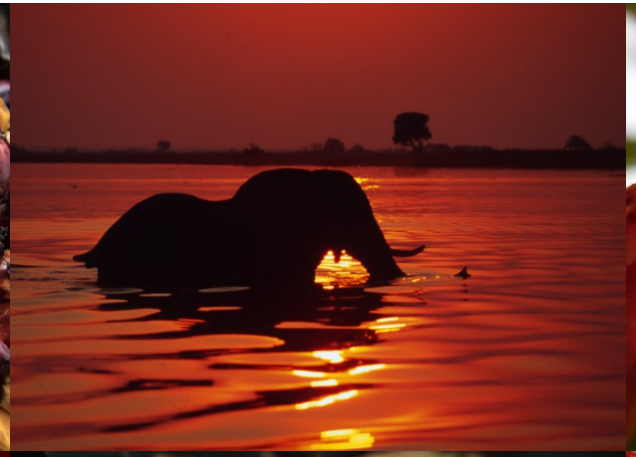
04 **Governments should design national sectoral pathways that outline clear, science-based strategies for each sector to achieve net-zero emissions and biodiversity goals:** To drive meaningful progress toward net-zero emissions, policymakers should make sectoral pathways that serve as a basis for companies to develop transition plans at the individual company level. National sectoral transformation plans must be comprehensive and detailed, offering a clear roadmap for each sector's transition to net-zero emissions by mid-century. These plans should outline specific milestones, timelines, and responsibilities, ensuring that all sectors are aligned with the overarching goal of reducing emissions. Policymakers should regularly update sector-specific abatement potentials and address residual emissions, ensuring that pathways remain aligned with the latest developments.

05 **Policymakers should examine and facilitate various finance interventions for sea-, water- and landscape[3] needs:** Sub-optimal landscape financing often occurs when opportunities are missed or when the right set of complementary solutions is not deployed. Since landscapes—including terrestrial, coastal, and marine environments—are interconnected systems, they require holistic and integrated approaches to financing. Fragmented or sector-specific financing approaches can lead to inefficiencies and diminished outcomes. Policymakers play a crucial role in coordinating these financial interventions, fostering synergies among initiatives, and ensuring that investments are strategically aligned to reinforce one another. This coordinated approach not only optimizes the use of resources but also enhances the overall impact on environmental sustainability and resilience.

06 **Governments should establish a suitable policy and regulatory framework that supports a just transition to net zero:** Governments, in cooperation with relevant industries and trade unions, must ensure that social, financial and technical support is provided to those who might be affected by policies and measures to combat climate change particularly on workers, communities, and industries that are currently dependent on high-carbon activities. The initiative includes reskilling and upskilling programs to help workers transition to new jobs in the green economy, financial assistance to ease the economic burden of the transition, and investment in community development to ensure that all regions benefit from the shift to net zero.

[3] A landscape is a socio-ecological system that consists of natural and/or human-modified ecosystems, and which is influenced by distinct ecological, historical, economic and socio-cultural processes and activities. Read more here https://forestsolutions.panda.org/approach/sustainable-landscapes








THE SUSREG FRAMEWORK




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, 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.

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SUSREG SPLITS THE ASSESSMENT INTO THREE BROAD CATEGORY OF RISKS

CLIMATE RISKS

Greenhouse gas emissions, physical and transition climate-related risks, and broader climate-related impacts such as climate adaptation.

ENVIRONMENTAL RISKS

Loss of biodiversity in terrestrial, freshwater, and marine ecosystems; habitat destruction; deforestation; pollution of air, soil, and fresh- and ocean water; and the overexploitation of natural resources like water and soil contribute to physical, transitional, and nature-related risks.

SOCIAL RISKS

Human rights violations, labor issues (including occupational health & safety), adverse impacts on local communities (including indigenous people), and financial inclusion.

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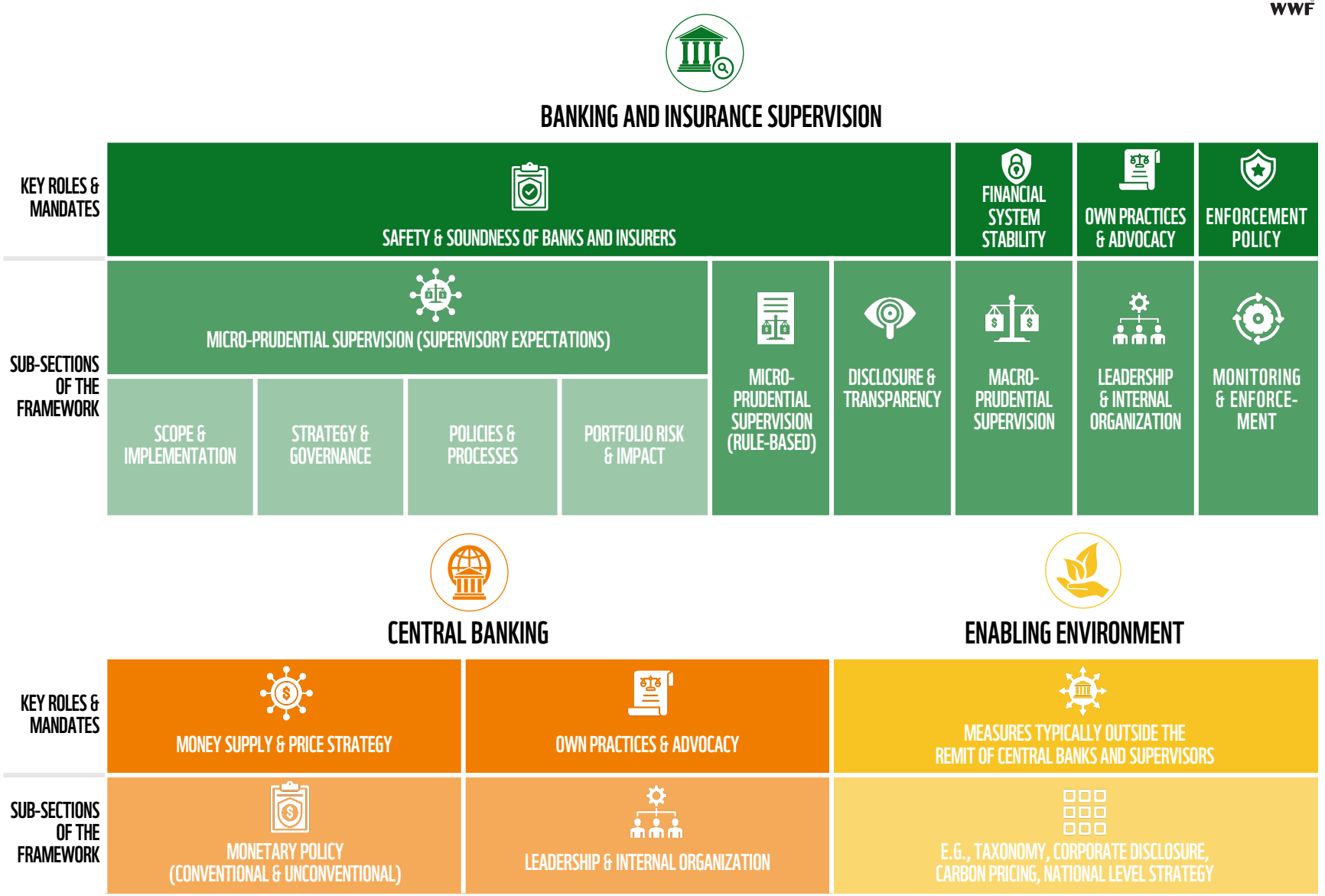
SUSREG TRACKER FRAMEWORK

The framework's development was informed by:

- WWF's active involvement in leading sustainable finance initiatives, e.g. through its representation on the European Commission's Technical Expert Working Group and its successor Platform on Sustainable Finance;
- WWF's ongoing work with central banks, financial regulators, supervisors and policymakers worldwide, that contributes to shaping the development of sustainable financial regulations and guidelines in key financial markets;
- WWF's perspective as a science-based organization, rooted in conservation work that delivers positive impacts on the ground.

In addition to drawing on this in-house expertise, the development of this framework has built on:

- Current best practices by central banks and supervisors worldwide, as well as the NGFS recommendations and publications;
- An extensive review of the literature produced by leading universities, think-tanks and non-governmental organizations on central banking and supervisory practices;
- Key frameworks such as the Task Force on Climate-related Financial Disclosures (TCFD), Taskforce on Nature-related Financial Disclosures (TNFD), etc.



BANKING INDICATORS

BANKING SUPERVISION

BANK PRACTICES						SUPERVISOR PRACTICES		
1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9
SCOPE & IMPLEMENTATION	STRATEGY & GOVERNANCE	POLICIES & PROCESSES	PORTFOLIO RISK & IMPACT	MICRO-PRUDENTIAL	DISCLOSURE & TRANSPARENCY	MACRO-PRUDENTIAL	LEADERSHIP & INTERNAL ORGANISATION	MONITORING & ENFORCEMENT
Regulations or guidance issued	Business & risk strategy	Sector policies	Portfolio management	Integrating E&S into ICAAP	Disclosure of business policies & processes	Supervisor's scenario analysis & stress testing	NGFS membership for supervisors	Monitoring report
Risks coverage	Risk appetite statement	Standards & certification	Scenario analysis & stress testing	Minimum capital ratios	Transition plan disclosure	Scenario analysis & stress testing method	Supervisor's E&S strategy & transition plan	Intervention action
Double materiality	Long-term consideration	Client support on international standard	Management of negative E&S impacts	Liquidity risk management	Internationally recognised reporting frameworks disclosure	Scenario analysis & stress testing result	Internal organisation & resources (FS)	
Beyond lending	Board communication	High risk sectors guidance	Climate target setting	Liquidity ratios	Disclosure in annual report	Risk indicator monitoring	Study on banking's exposure	
Supervisory monitoring	Remuneration policy	Integration in policies & processes	Nature target setting		Sub-sectors credit disclosure	Exposure limit	Alignment to sustainability goals	
Public consultation	Staff & resources	Deforestation & conversion	Management of reputation & litigation risk		Disclosure against taxonomy	Systemic risk buffer capital requirement	Staff training	
	Board appointments	Three lines of defence	Validation of outsourcing services		Disclosure of portfolio exposure & mitigation		Study on transmission channels	
	Board responsibilities	Non-compliance mitigation			Disclosure of negative E&S impact		Data quality initiatives	
	Executive management responsibilities	E&S credit clauses			External assurance for the disclosure			
	Core functions	Active client engagement						
	Training	Data & IT infrastructure						
	Stakeholder engagement	Fresh water risk						
	Code of conducts and guidelines	Oceans and marine life						

CENTRAL BANKING

CENTRAL BANK PRACTICES	
2.1	2.2
MONETARY POLICY	LEADERSHIP & INTERNAL ORGANISATION
Corporate asset purchase programs	NGFS membership for central banks
Collateral framework	Nominal anchors
Foreign exchange reserves	Central bank's E&S strategy & transition plan
Subsidised & targeted refinancing loans	TCFD disclosure
Reserve requirements	Internal organisation & resources (CB)
	Central bank's portfolio exposure disclosure
	Asset management
	Taxonomy alignment
	Central bank's phase out plan

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
Targets & incentives
SME guideline
Sustainable sovereign bond
Just transition initiative

INSURANCE INDICATORS

INSURANCE SUPERVISION

INSURANCE PRACTICES						SUPERVISOR PRACTICES		
1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9
SCOPE & IMPLEMENTATION	**STRATEGY & GOVERNANCE**	**POLICIES & PROCESSES**	**PORTFOLIO RISK & IMPACT**	**MICRO-PRUDENTIAL**	**DISCLOSURE & TRANSPARENCY**	**MACRO-PRUDENTIAL**	**LEADERSHIP & INTERNAL**	**MONITORING & ENFORCEMENT**
Regulations or guidance issued	Business & risk strategy	Sector policies	Portfolio management	Enterprise Risk Management framework (ORSA)*	DIsclosure of business policies & processes	Supervisor's scenario analysis & stress testing	NGFS membership for supervisors	Monitoring report
Risks coverage	Risk appetite statement	Standards & certification	Scenario analysis & stress testing	Solvency capital requirements*	Transition plan disclosure	Scenario analysis & stress testing method	Supervisor's E&S strategy & transition plan	Intervention action
Double materiality	Long-term consideration	Client support on international standard	Management of negative E&S impacts	Expectations of reinsurers*	Internationally recognised reporting frameworks disclosure	Scenario analysis & stress testing result	Internal organisation & resources (FS)	
Supervisory monitoring	Board communication	High risk sectors guidance	Climate target setting	Product development*	Disclosure in annual report	Risk indicator monitoring	Study on insurer's exposure	
Public consultation	Remuneration policy	Integration in policies & processes	Nature target setting		Industry credit exposure	Exposure limit	Alignment to sustainability goals	
	Staff & resources	Deforestation & conversion	Risk concentration & ALM*		Disclosure against taxonomy	Obligatory insurance mandates*	Staff training	
	Board appointments	Three lines of defence	Natural catastrophe claims*		Disclosure of portfolio exposure & mitigation	Integrated financial groups supervision*	Study on transmission channels	
	Board responsibilities	Non-compliance mitigation	Management of reputation & litigation risk		Disclosure of negative E&S impact	Systemic risks buffer capital requirement	Data quality initiatives	
	Executive management responsibilities	Active client engagement	Validation of outsourcing services		Greenwashing risks*		Engagement with reinsurers*	
	Core functions	Data & IT infrastructure	Risk concentration management*		External assurance for the disclosure			
	Training	Fresh water	E&S risk in pricing*					
	Stakeholder engagement	Oceans and marine life	Pricing incentives*					
	Code of conducts and guidelines							

** Insurance specific*

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
SME guideline
Sustainable sovereign bond
Targets & incentives
Just transition initiatives
Public Private Partnership for Insurance Coverage*
Disaster Risk Reduction Facilities*

WHAT'S NEW IN SUSREG 2024?

ADDITIONAL INDICATORS

47 → 52 JURISDICTIONS

BANKING AND INSURANCE SUPERVISION

INTEGRATION OF OCEANS AND MARINE LIFE:

The supervisor asks banks/insurers whether and how they integrate oceans and marine life related risks in their decision-making, risk management processes and policies.

IMPLEMENTATION & MONITORING REPORT:

Financial supervisors publish a report on the progress of financial institutions in meeting their supervisory expectations.

INTERVENTION ACTION:

Financial supervisors disclose their enforcement policy concerning financial institutions that fail to align with their supervisory expectations

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ASSESSMENT METHODOLOGY

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.

SOURCES OF THE ASSESSMENT

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.

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. This year, at least one central bank and/or financial supervisor from over 70% of the jurisdictions covered has given feedback to our assessment. 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 with a cut off date of 31st July 2024.

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 up to date picture of where certain central banks and financial supervisors are standing.

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 explicit conclusion on their ultimate 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 at WWF in the respective fields.

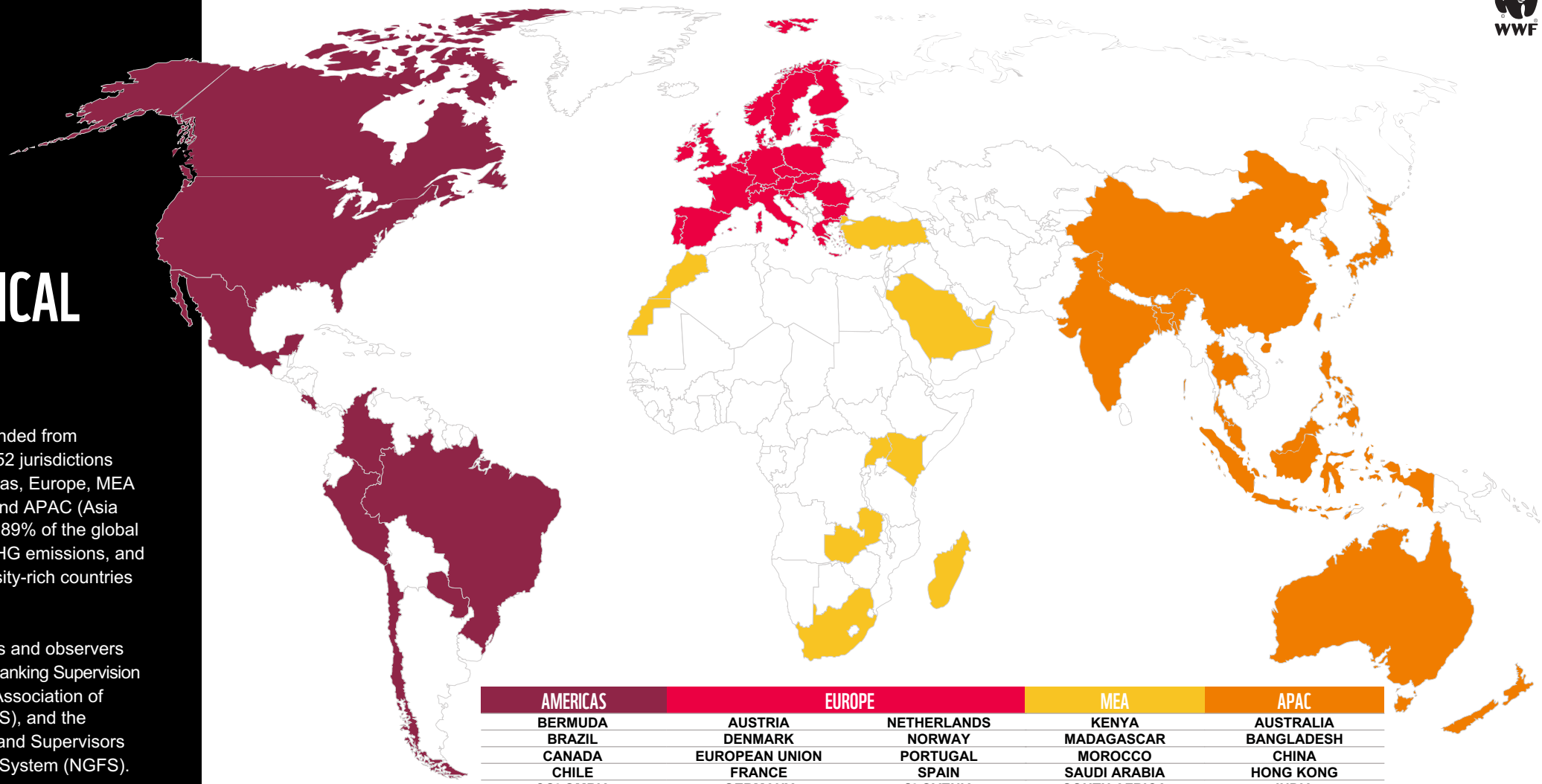
[1] WWF, Introducing SUSREG: A framework for sustainable financial regulations and central bank activities, 2021.
[2] WWF, SUSREG Tracker: Extension to insurance regulation and supervision, 2022.

GEOGRAPHICAL COVERAGE

The assessment has expanded from 38 jurisdictions in 2021 to 52 jurisdictions in 2024 across the Americas, Europe, MEA (Middle East and Africa), and APAC (Asia Pacific), representing over 89% of the global GDP and 75% of global GHG emissions, and 13 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	EUROPE		MEA	APAC
BERMUDA	AUSTRIA	NETHERLANDS	KENYA	AUSTRALIA
BRAZIL	DENMARK	NORWAY	MADAGASCAR	BANGLADESH
CANADA	EUROPEAN UNION	PORTUGAL	MOROCCO	CHINA
CHILE	FRANCE	SPAIN	SAUDI ARABIA	HONG KONG
COLOMBIA	GERMANY	SLOVENIA	SOUTH AFRICA	INDIA
COSTA RICA	GREECE	SWEDEN	TÜRKIYE	INDONESIA
MEXICO	HUNGARY	SWITZERLAND	UAE	JAPAN
PARAGUAY	ITALY	UK	UGANDA	MALAYSIA
PERU	LUXEMBOURG		ZAMBIA	NEW ZEALAND
USA				PHILIPPINES
CALIFORNIA (US STATE)				SINGAPORE
NEW YORK (US STATE)				SOUTH KOREA
				TAIWAN
				THAILAND

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 Union countries should be considered in parallel to the results of our assessment of the EU. Under the European Union banking supervision, the ECB directly supervises the larger banks that are designated as Significant Institutions of countries under the Eurosystem and Single Supervisory Mechanism (SSM).

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, we consider them as “partially met” at the country level. In principle, we do not use guidelines such as those issued by EBA/ECB (for banking) and EIOPA (for insurance) in the country-level assessment, 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)

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. US states can choose to adopt NAIC proposals, in some cases automatically.

BANKING SUPERVISION

POSITIVE OUTLOOK AND PROGRESS IN BANKING SUPERVISION FROM 2021 TO 2024, BUT BROADER ENVIRONMENTAL AND SOCIAL ISSUES REMAIN A CHALLENGE ACROSS REGIONS

FIGURE 1: AVERAGE FULFILLMENT OF BANKING SUPERVISION CRITERIA

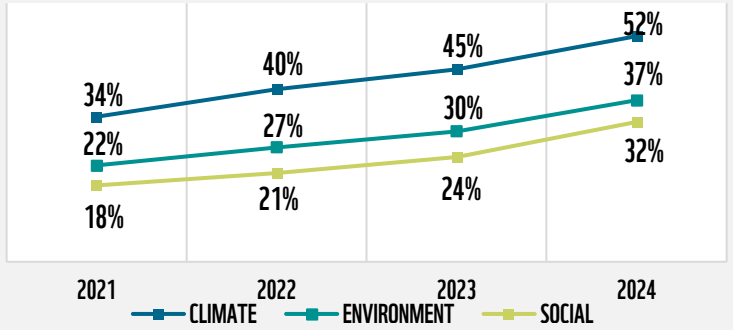
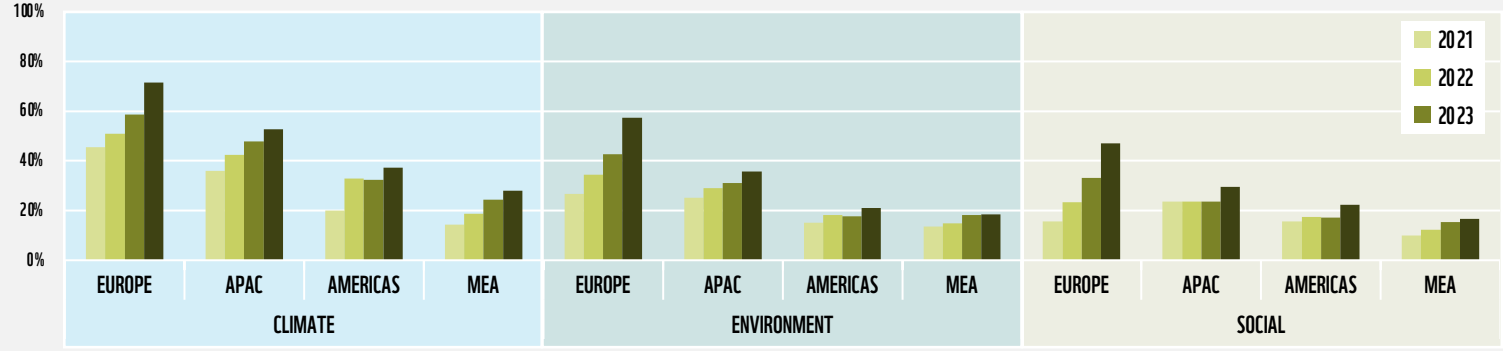


FIGURE 2: AVERAGE FULFILLMENT OF BANKING SUPERVISION CRITERIA PER REGION



CLIMATE

Since 2021, we have observed significant progress in climate initiatives across all four regions of focus. This trend reflects the growing emphasis on national and regional regulations, as well as increased supervisory attention to climate-related issues. Europe is at the forefront, driven by a wave of climate-focused regulations. Key among these that were just recently enforced in 2024 are the Corporate Sustainability Reporting Directive (CSRD), Capital Requirements Directive (CRD6), and Capital Requirements Regulation (CRR3).

Notably, the number of countries meeting over 75% of the climate SUSREG criteria has risen from just one (the EU) in 2023 to eight. The newly included countries are Austria, France, Germany, Hungary, Italy, the Netherlands, and Portugal. The European Central Bank (ECB) is aiming for a full compliance of the significant institutions in the EU to its climate and environmental guide by the end of 2024.

ENVIRONMENT

The environmental aspect has seen positive progress from 2021 to 2024, with Europe showing the most substantial improvement, increasing its indicator fulfilment from 27% to 59%. Among others is the issuance of the EBA Draft Guidelines on the management of ESG risks.

However, progress in the Middle East and Africa (MEA) has been slower compared to last year. In the Americas, there has been some progress for the first time since 2022, although only at a 3% increase. Costa Rica stands out within the Americas, driven by the updated Risk Management Regulation on ESG by SUGEF and the Declaration of the Superintendencies of the Financial System, both of which emphasize the need for a more sustainable and climate-resilient financial system.

Despite these advancements, no country has achieved more than 75% fulfilment in environmental criteria up to and including this year. Alarmingly, 16 out of the 50 assessed countries have less than 25% alignment with SUSREG environmental criteria in their banking supervision, which is a cause for serious concern.

SOCIAL

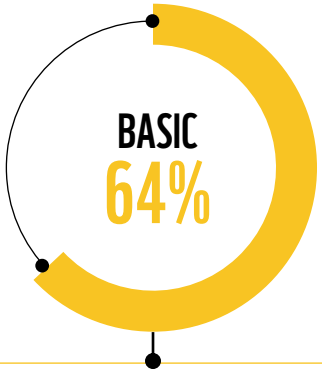
As in previous years, the social aspect remains the least developed in the SUSREG assessment compared to climate and environment. Despite this, there has been progress across all regions in social indicator fulfilment, although at varying rates. Europe has shown the most significant increase, largely due to the aforementioned directives and regulations.

In contrast to past years, where there was little to no change, the Asia-Pacific (APAC) and Americas regions have seen visible improvements. Brazil show some progress in the recent year with the consultation on the Disclosure of Metrics related to Social, Environmental, and Climate Risks and Opportunities by the Banco Central do Brasil (BCB).

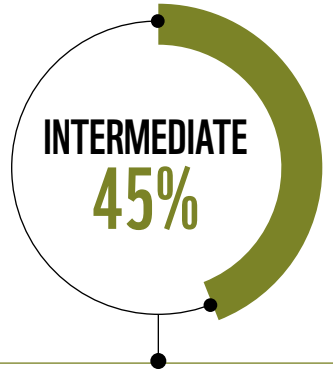
However, it's important to note that 23 out of the 50 assessed countries still aligned less than 25% to SUSREG social criteria.

WHILE BASIC INDICATORS ARE 64% MET, THE ROAD AHEAD LOOKS STEEP WITH JUST 26% OF ADVANCED INDICATORS FULFILLED

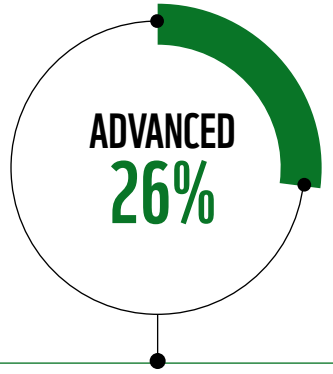
FIGURE 3: SUSREG BANKING SUPERVISION INDICATORS PROGRESS FOR CLIMATE & ENVIRONMENT ACROSS THREE DISTINCT CATEGORIES



- Regulations or supervisory expectations are in place
- Coverage of C&E issues
- Supervisory monitoring
- Governance & strategy
- Integration in policies & processes
- Bank reputation and litigation risk management
- Portfolio risk management
- ICAAP & internal liquidity management
- NGFS membership for supervisors
- National multi-stakeholder initiatives



- Double materiality
- Stakeholder engagement
- Client engagement
- Data infrastructure by the banks
- Disclosure in annual report and following internationally recognised reporting frameworks
- Scenario analysis & stress test by supervisor
- Supervisor's transition plan
- Supervisor's study on banking's exposure to C&E risks



- Sector policies
- Integration of nature-related risks
- Bank's transition plan
- Climate and nature target setting
- Scenario analysis & stress testing by banks
- Management of negative C&E impacts
- Minimum capital and liquidity requirements
- Systemic risk buffer capital requirement
- Disclosure against taxonomy

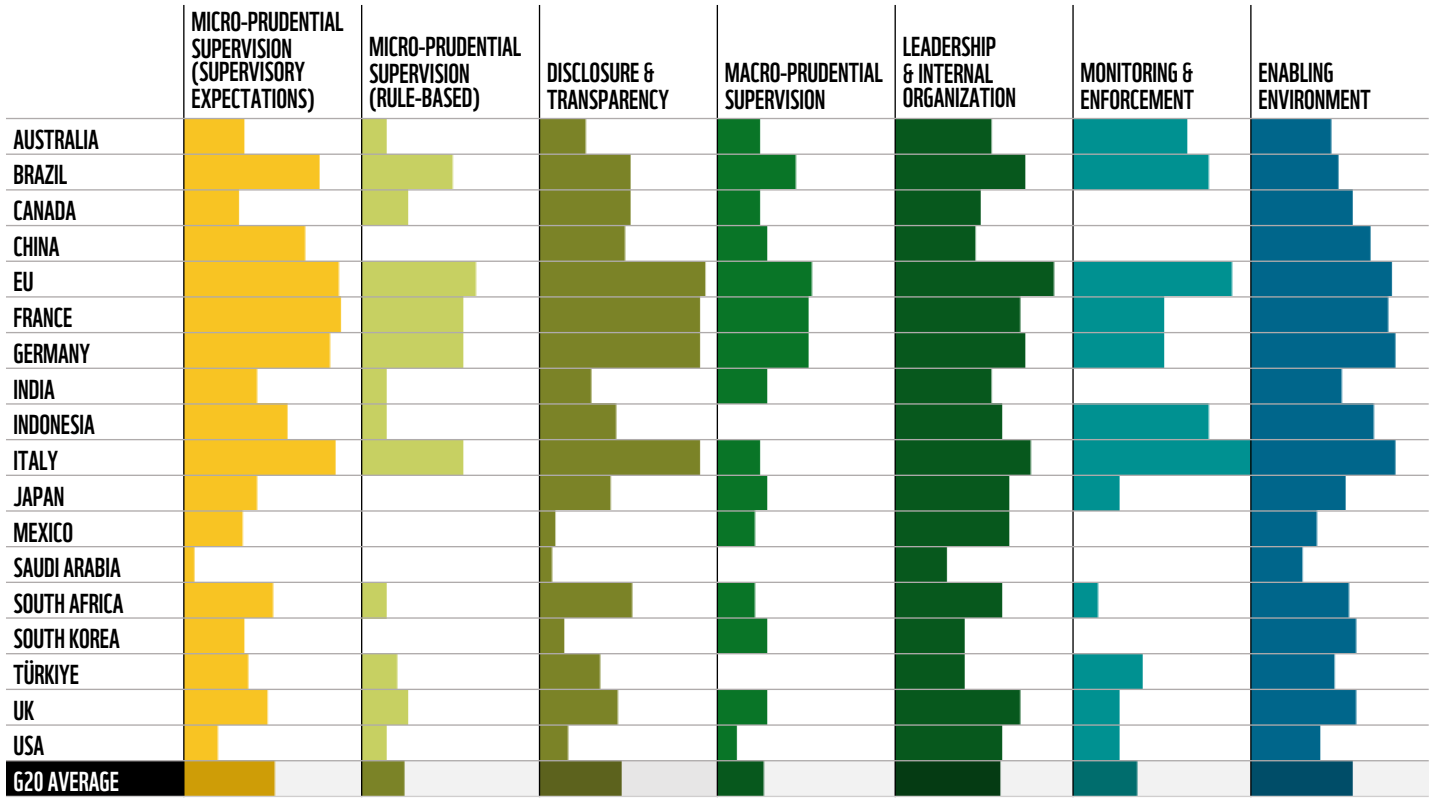
Note: The number displayed on the graph represents the average fulfillment of indicators for the climate and environmental assessment. Partially met criteria are assigned a 50% fulfillment, while fully met criteria result in 100% fulfillment.

- The SUSREG indicators are split into three groups, depending on their perceived level of complexity: basic, intermediate, and advanced.
- On average, 64% of the basic indicators have been achieved by the countries assessed. This indicates that, more than half of the basic indicators such as inclusion of climate and environmental risk into strategies, governance structures, integration into policies, portfolio risk management, and having national multi-stakeholder initiative for advancing sustainable finance.
- However, under intermediate indicators, we observe a lower level of achievement at 45%, with a 7% increase from 2023. This lower achievement rate highlights the challenges in addressing more nuanced issues, such as incorporating double materiality and aligning disclosures with internationally recognized sustainability reporting frameworks.
- The advanced indicators show the lowest level of achievement, with only 27% fulfilled. Among these, scenario analysis and stress testing have seen the most progress, while the integration of climate and environmental risks into capital and liquidity ratios remains largely unaddressed across all countries.

In the EU's Capital Requirements Directive VI (CRD VI), competent or designated authorities are encouraged to implement a systemic risk buffer rate if they determine that climate-related risks could have significant negative impacts on the financial system and real economy within Member States. This buffer rate can be applied to specific sets or subsets of exposures, such as those related to physical and transition risks from climate change, when authorities deem that introducing such a rate is an effective and proportionate measure to mitigate these risks.

G20 COUNTRIES SHOWS GAPS IN INTEGRATING CLIMATE AND ENVIRONMENTAL RISKS INTO CAPITAL REQUIREMENTS AND MACROPRUDENTIAL MEASURES

FIGURE 4: 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, 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*

- The G20 countries play a crucial role in the global economy, collectively representing about 85% of the world's GDP they have significant influence over global financial stability and international trade policies. The decisions and policies adopted by G20 nations often set the tone for global economic governance, making their actions essential for addressing pressing challenges of climate and environmental risks.
- The climate and environmental banking supervision in G20 countries exhibits relative strength in areas such as micro-prudential supervisory expectations, internal leadership by supervisors, and enabling environment.
- However, integrating climate and environmental risks into rule-based micro-prudential supervision remains challenging, particularly in translating these risks into capital and liquidity ratios. These challenges stem mainly from the long-time horizons associated with climate & environmental impacts and the need for new risk models to accurately identify potential financial losses associated with it[1].
- Macro-prudential supervision show particularly low levels of fulfillment. For instance, Indonesia, Türkiye, and Saudi Arabia have not met any of the SUSREG criteria in this category, which includes key areas like scenario analysis & stress testing by the supervisors, having risk indicators for monitoring, setting exposure limits, and establishing systemic risk buffers capital.
- Additionally, countries such as Canada, China, India, Mexico, Saudi Arabia, and South Korea have not met any indicators in the monitoring and enforcement category. The national financial supervisors have neither disclosed their enforcement policies regarding their supervisory expectations nor published reports on the progress of institutions in implementing them.

[1] European Central Bank, The challenge of capturing climate risks in the banking regulatory framework: is there a need for a macroprudential response?, 2021.

G20 RECOGNIZES TRANSITION PLANS AS THE PATH TO GLOBAL SUSTAINABILITY

FIGURE 5: TRANSITION PLAN INDICATORS IN G20 COUNTRIES

SUSREG INDICATOR	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.	Banks are expected to publicly disclose their time-bound transition plans to reach set strategies and objectives pertaining to E&S issues	The supervisor has published an official E&S strategy or roadmap outlining a science-based transition plans with associated measures for contributing to a net-zero and nature-positive financial sector, in line with its mandate	The central bank has published an official strategy, roadmap, or science-based transition plan with associated measures for contributing a net-zero and nature-positive financial center, in line with its mandate*	Non-financial corporates are required to publish science-based transition plans
	1.4.4	1.6.2	1.8.2	2.2.3	3.1.6
AUSTRALIA	■	■	■	■	■
BRAZIL		■	■	■	■
CANADA	■	■	■	■	■
CHINA	■	■	■	■	■
EUROPEAN UNION	■	■	■	■	■
FRANCE	■	■	■	■	■
GERMANY	■	■	■	■	■
INDIA	■	■	■	■	
INDONESIA		■	■	■	■
ITALY	■	■	■	■	■
JAPAN	■	■	■	■	■
MEXICO	■			■	
SAUDI ARABIA					
SOUTH AFRICA	■	■	■	■	■
SOUTH KOREA	■		■	■	
TÜRKIYE	■	■			■
UK	■	■	■	■	■
USA		■	■	■	■
G20 AVERAGE	■	■	■	■	■

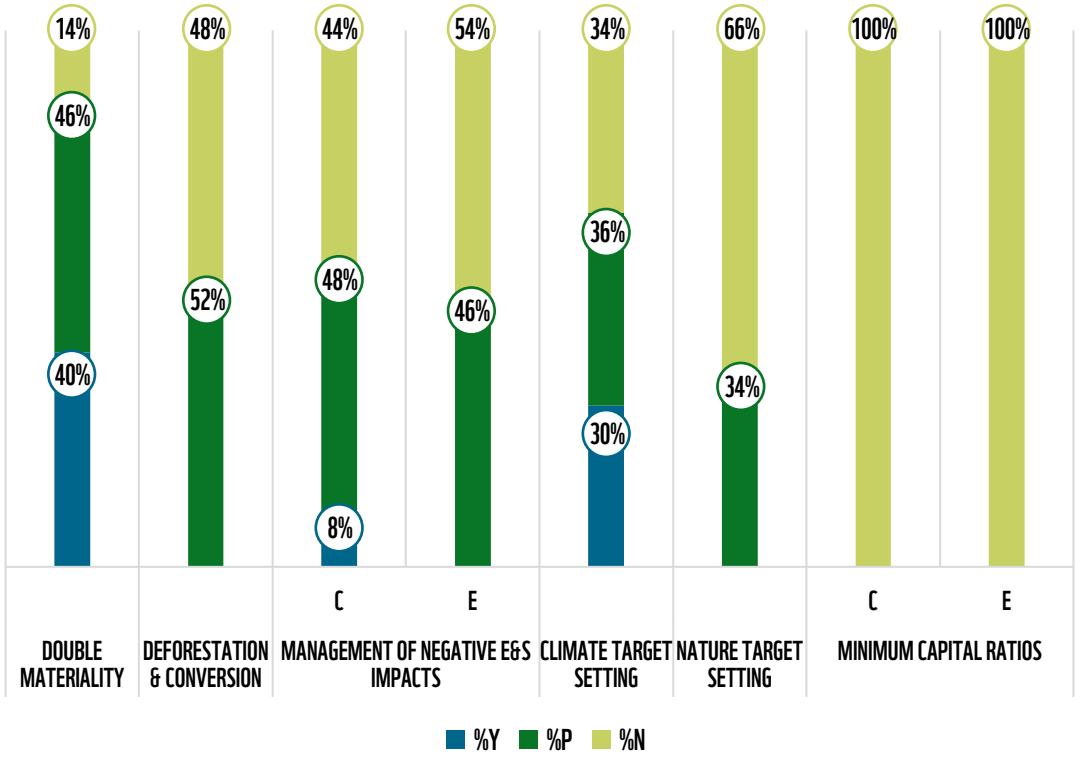
Note: Argentina and Russia are not shown in the table as we do not cover these countries in our assessment.
Compared to the T20 paper, which used SUSREG 2023 data, this analysis incorporates updated data as of July 2024. Unlike the T20 paper, the aggregation method here excludes social criteria.

[1] G20, G20 transition finance framework (TFF), in 2022 G20 Sustainable Finance Report, 2022.
[2] G20, G20 Sustainable Finance Working Group Presidency and Co-chairs Note on Agenda Priorities, 2024.
[3] Financial Stability Board, FSB sets out work programme for 2024.
[4] European Central Bank, FAQ on incorporating climate change considerations into corporate bond purchases, 2024
[5] The detailed methodology is explained in a policy brief prepared for the T20 of the Brazilian G20 presidency: WWF/E3G, Transition plans: putting the G20 principles into practice, 2024.
[6] WWF has published detailed guidance: Corporate Climate Targets - ensuring the credibility of EU-regulated commitments, 2024.
[7] WWF/E3G, Transition plans: putting the G20 principles into practice, policy brief prepared for the T20 of the Brazilian G20 presidency, 2024.

- The G20 has recognized the importance of transition plans as a critical lever for change, adopting a principles-based approach under the G20 transition finance framework in 2022. The framework highlights the need for companies and financial institutions "*to disclose current transition plans featuring credible, science-based interim and long-term goals with timelines*" [1].
- More recently, the G20 has also reaffirmed the need to "*advance[e] credible, robust and just transition plans*" [2] and the Financial Stability Board is conducting analysis of the relevance of transition plans for financial stability and, for the G20, a stock-take of regulatory and supervisory initiatives related to the identification and assessment of nature-related financial risks[3].
- Many jurisdictions across G20 countries have issued guidance or are in the process of adopting requirements related to transition planning and forward-looking target at the national or regional level. These countries include both emerging economies (e.g., Brazil, China, South Africa) and developed nations (e.g., EU, UK). Figure 5 on the left depicts the fulfillment of the relevant SUSREG indicators across different categories[4]).
- Central banks and financial supervisors can help drive the implementation of the transition plan agenda. For example, in the European Union, where forward-looking climate-related targets and transition plans disclosure are becoming mandatory for companies and financial institutions with material exposure to the risks (indicator 3.1.6[5]), the European Central Bank has also started to incorporate climate change considerations to its corporate bond purchases program[6].
- However, many inconsistencies and gaps remain across G20 jurisdictions. Coordinated action is needed to strategically ensure consistency and clarity across jurisdictions and use cases of transition plans. International standards are needed to foster convergence and interoperability of transition plans[7].
- Central banks and financial supervisors can also '*lead by example*' and become prepared of their own transition plans by incorporating climate- and nature risks into their own objectives and strategies with detailed target and milestones (indicators 1.8.2 and 2.2.3).

SUPERVISORY EXPECTATIONS ON DEFORESTATION, TARGET SETTING, AND CAPITAL REQUIREMENTS REMAIN INADEQUATELY ENFORCED

FIGURE 6: AVERAGE ACHIEVEMENT OF 50 COUNTRIES ON SELECT INDICATORS OF BANKING SUPERVISION



Note: The numbers displayed in the graph represent the percentage of countries in the SUSREG scope that do not meet (N), partially meet (P), and fully meet (Y) the SUSREG criteria on the respective indicators.

DOUBLE MATERIALITY

The concept of double materiality broadens the traditional view which focuses solely on the financial implications of external risks to banks (financial materiality), to also include the broader inside-out impact that the banks have on the environment and society. European countries are leading in the integration of double materiality into supervisory frameworks, with 14 out of 17 European nations fulfilling the relevant indicators. This progress is largely driven by regulatory initiatives such as the Sustainable Finance Disclosure Regulation (SFDR), and the Corporate Sustainability Reporting Directive (CSRD) for EU Member States.

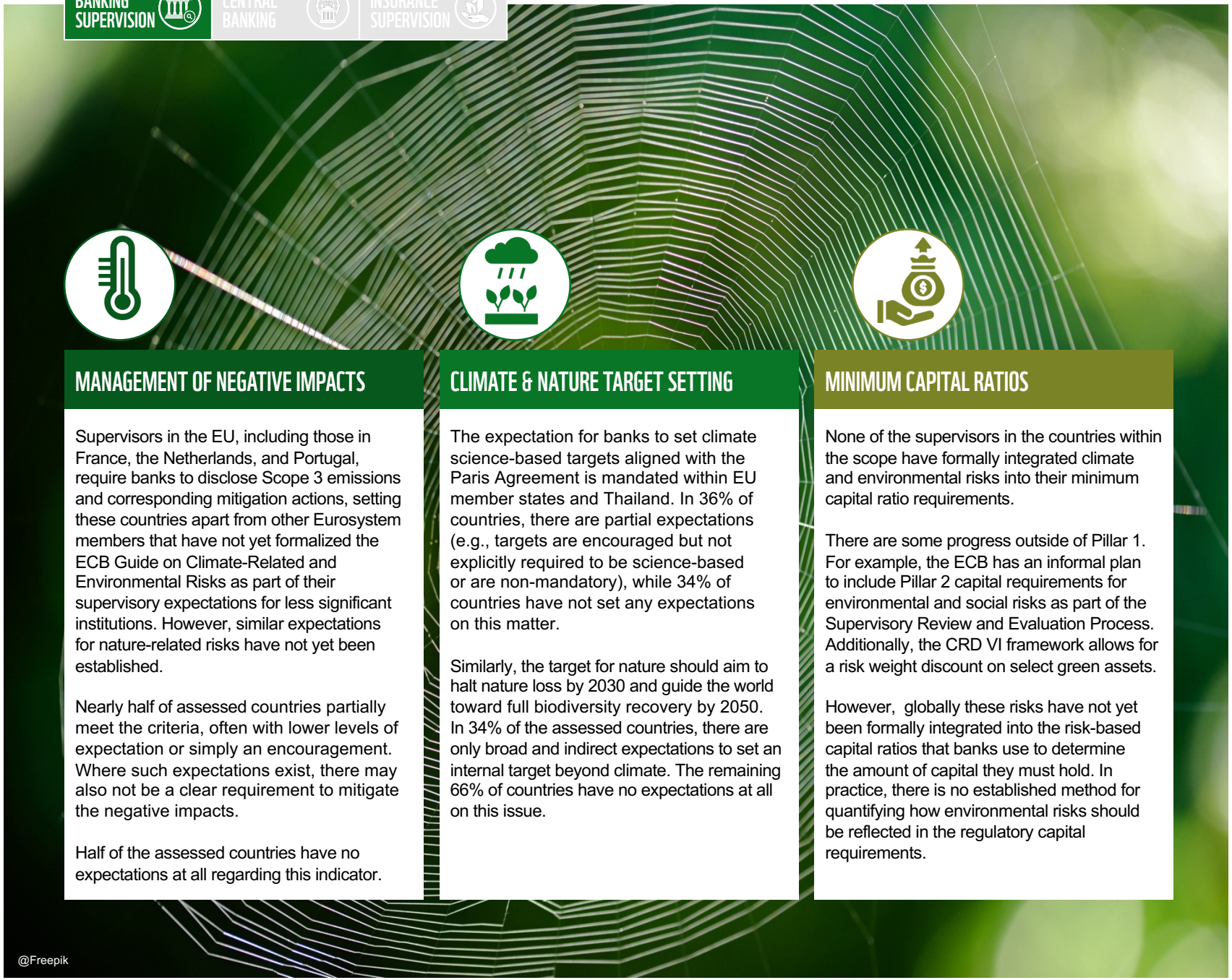
However, 46% of countries only partially meet the expectations which indicates a predominant focus on single materiality, where the emphasis remains on inward looking financial impacts of climate and environmental risks.

DEFORESTATION & CONVERSION

Few financial supervisors currently require banks to integrate deforestation and wider habitat conversion issues into their decision-making, risk management processes, and policies. Among the countries assessed, Malaysia and the Netherlands provide more detailed guidance on these risk drivers. In both countries, supervisors have issued guidelines addressing these issues, such as incorporating ecosystem and biodiversity impacts into sectoral guidelines and introducing tools to help financial institutions address deforestation.

In addition, 46% of countries have partially fulfilled the indicator, indicating that deforestation and broader habitat conversion issues may be included under general environmental considerations. However, there are no specific requirements or detailed guidelines on how to assess and manage these risks.

In **the Monetary Authority of Singapore (MAS)'s Guidelines on Environmental Risk Management for Banks**, banks are expected develop quantitative and qualitative tools and metrics to monitor and assess its exposures to environmental risk, where material, at the portfolio level. **Beyond climate change, customer and portfolio metrics may be used to evaluate the dependencies of key customer segments on ecosystem services and natural capital**. This may include assessing the impact of water stresses on corporates' financial performance or considering the impact of biodiversity loss on crop production and profitability of relevant industries such as the food production and processing industries.



MANAGEMENT OF NEGATIVE IMPACTS

Supervisors in the EU, including those in France, the Netherlands, and Portugal, require banks to disclose Scope 3 emissions and corresponding mitigation actions, setting these countries apart from other Eurosystem members that have not yet formalized the ECB Guide on Climate-Related and Environmental Risks as part of their supervisory expectations for less significant institutions. However, similar expectations for nature-related risks have not yet been established.

Nearly half of assessed countries partially meet the criteria, often with lower levels of expectation or simply an encouragement. Where such expectations exist, there may also not be a clear requirement to mitigate the negative impacts.

Half of the assessed countries have no expectations at all regarding this indicator.

CLIMATE & NATURE TARGET SETTING

The expectation for banks to set climate science-based targets aligned with the Paris Agreement is mandated within EU member states and Thailand. In 36% of countries, there are partial expectations (e.g., targets are encouraged but not explicitly required to be science-based or are non-mandatory), while 34% of countries have not set any expectations on this matter.

Similarly, the target for nature should aim to halt nature loss by 2030 and guide the world toward full biodiversity recovery by 2050. In 34% of the assessed countries, there are only broad and indirect expectations to set an internal target beyond climate. The remaining 66% of countries have no expectations at all on this issue.

MINIMUM CAPITAL RATIOS

None of the supervisors in the countries within the scope have formally integrated climate and environmental risks into their minimum capital ratio requirements.

There are some progress outside of Pillar 1. For example, the ECB has an informal plan to include Pillar 2 capital requirements for environmental and social risks as part of the Supervisory Review and Evaluation Process. Additionally, the CRD VI framework allows for a risk weight discount on select green assets.

However, globally these risks have not yet been formally integrated into the risk-based capital ratios that banks use to determine the amount of capital they must hold. In practice, there is no established method for quantifying how environmental risks should be reflected in the regulatory capital requirements.

Costa Rica's Green Protocol Banking, issued by financial regulators**, mandates that financial institutions consider socio-environmental impacts and costs when managing assets and conducting project risk analyses,** following their internal policies and specific guidelines. Institutions should exercise caution in financing projects that may cause significant environmental degradation, requiring credit holders to present the necessary environmental licenses. Socio-environmental criteria must be integrated into the financing analysis process, accounting for the magnitude of potential impacts and the need for mitigation and compensation measures. Additionally, institutions should apply sector-specific socio-environmental performance standards, particularly when evaluating projects with high environmental and negative impacts.

The EU Corporate Sustainability Reporting Directive (CSRD) mandates that undertakings, including most banks and financial institutions, provide a brief description of their business model and strategy. This must include detailed plans, actions, and related financial and investment strategies to align with the transition to a sustainable economy. **These plans should specifically aim to limit global warming to 1.5°C, in line with the Paris Agreement, and achieve climate neutrality by 2050, as outlined in Regulation (EU) 2021/1119.**

Additionally, the **EU's Capital Requirements Directive VI (CRD VI) allows a risk weight discount for infrastructure exposures, if** the financed assets contribute positively to environmental objectives under Regulation (EU) 2020/852 and must not significantly harm any other specified objectives.

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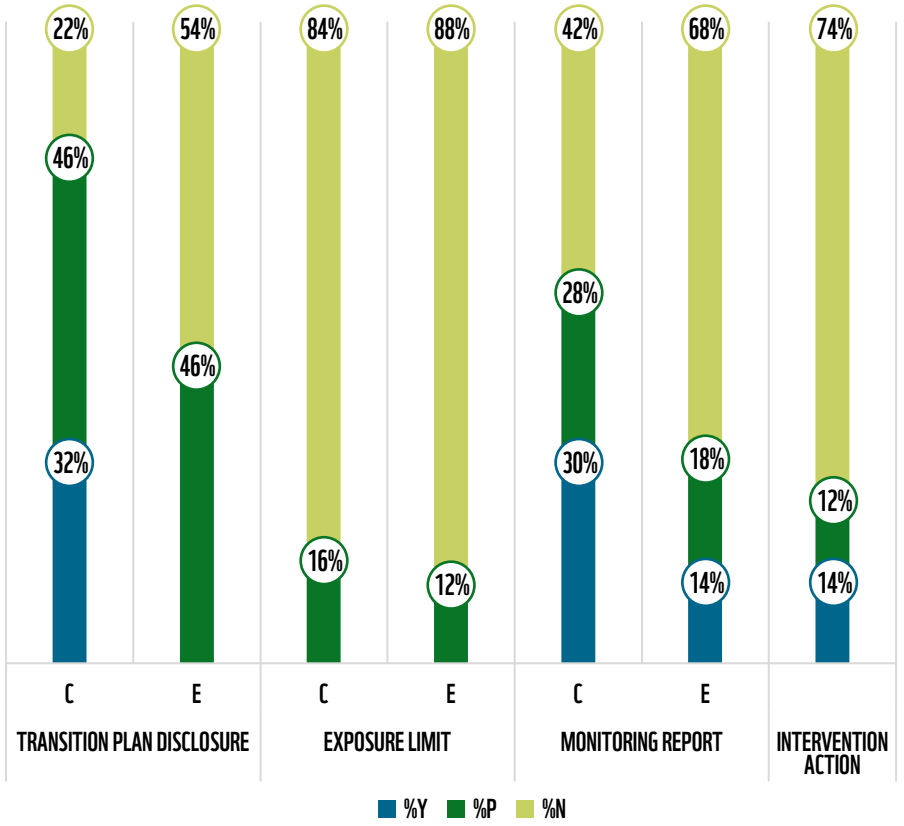
DESPITE THEIR IMPORTANCE, EXPOSURE LIMIT AND CLEAR INTERVENTION ACTION FOR NON-COMPLIANCE ARE NOT YET APPLIED ACROSS MANY COUNTRIES

FIGURE 7: AVERAGE ACHIEVEMENT OF 50 COUNTRIES ON SELECT INDICATORS OF BANKING SUPERVISION



Note: The numbers displayed in the graph represent the percentage of countries in the SUSREG scope that do not meet (N), partially meet (P), and fully meet (Y) the SUSREG criteria on the respective indicators.

TRANSITION PLANS BY BANKS

22% countries shows no expectation at all for climate transition plan. In countries with partial (46%), supervisors require banks to publicly disclose their transition plans, but in a less specific manner (e.g., lacking time-bound action plans, no science-based targets, etc.).

Countries in the European Union, Switzerland, and Canada has a full fulfilment for climate. In Switzerland, banks are required to disclose their transition plans in alignment with the Swiss climate goals set by the Federal Council. Meanwhile, Canada's supervisors mandate that banks implement transition plans in accordance with the Task Force on Climate-related Financial Disclosures (TCFD).

EXPOSURE LIMIT

Issuing prudential rules to limit banks' exposure to the most environmentally harmful activities is intended to prevent the accumulation of systemic sustainability risks. These rules often include expectations for phase-out plans of the most harmful activities. No country has issued such specific prudential rules. Austria, Brazil, the EU, France, Germany, Hungary, Sweden, and Thailand require high-level self-assessment limits for the high-risk exposures.

MONITORING REPORT

Reports on the progress of banks in meeting national supervisory expectations are published by supervisors in 58% of the assessed countries for climate, and 32% for nature.

In countries with partial fulfillment, supervisors may only assess specific aspects of climate, environmental, and social risk management, or they may have issued reports in the initial year but have not consistently updated or tracked progress over time.

INTERVENTION ACTION

About a quarter (26%) of banking supervisors have publicly disclosed their enforcement policies against banks that fail to meet supervisory expectations.

Brazil, the EU, Indonesia, Italy, the Phillipines, and Portugal fully meet this indicator by explicitly stating that they will take actions such as issuing warning letters, imposing sanctions, and levying monetary fines against non-compliance.

Germany's Federal Financial Supervisory Authority (BaFin), through Circular 05/2023 (BA) on "Minimum Requirements for Risk Management," requires emphasizes the need to account for major risks, including ESG (Environmental, Social, and Governance) risks. Management is required to receive regular reports on the business and risk situation, including these risk concentrations, and must provide quarterly written updates to the supervisory body to ensure ongoing oversight and compliance.

THE EUROPEAN CENTRAL BANK PLANS TO FINE BANKS NOT MEETING ITS CLIMATE AND ENVIRONMENTAL SUPERVISORY EXPECTATIONS

The European Central Bank (ECB) has established strict deadlines for financial institutions to align fully with its 2020 supervisory expectations on climate-related and environmental (C&E) risks by the end of 2024[1]. In their 2022 thematic review, the ECB acknowledged the progress banks have made in integrating C&E risks into their management frameworks. This progress is evident in areas such as materiality assessments and risk exposure mapping, with some leading institutions even beginning to assess their portfolios' alignment with the Paris Agreement. However, although 55% of institutions have developed policies and procedures to manage their C&E risks, the report mentioned that these institutions have failed to implement them effectively[2].

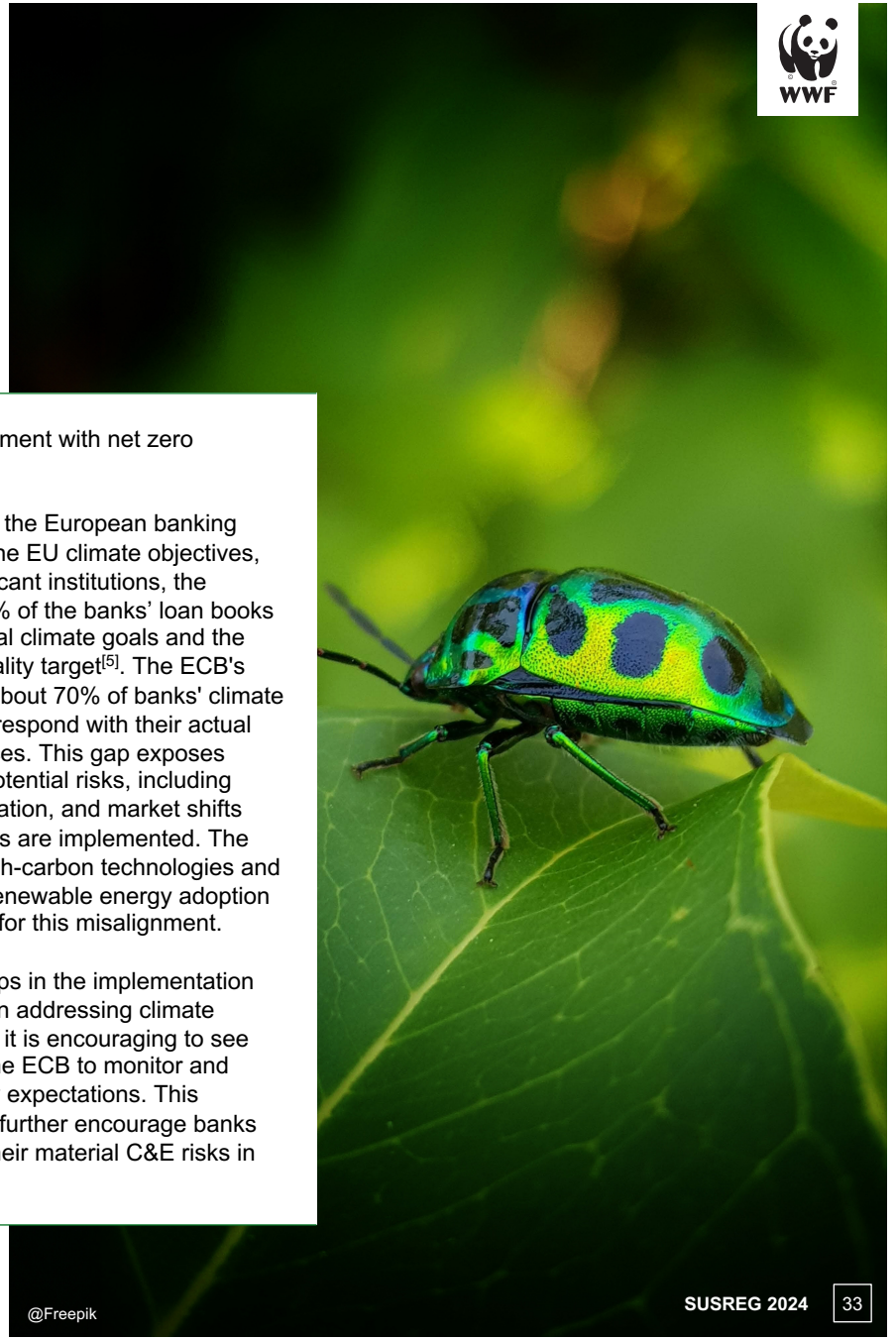
The same report mentions that the ECB has sent comprehensive feedback letters to all significant institutions, outlining specific deficiencies and institution-specific remediation plans. Notably, the ECB has imposed binding qualitative requirements on over 30 institutions as part of the Supervisory Review and Evaluation Process (SREP) to address severe weaknesses identified. Banks can refer to the ECB publication on good practices in climate stress test[3] and thematic review[4] to assist them in improving their climate and environmental risk management. This good practice reports are expected to be updated periodically.

In addition to feedback letters, the ECB is now considering penalizing financial institutions using Periodic Penalty Payments (PPPs) and setting Pillar 2 capital requirements if they fail to comply with the remedial plans by the given date[1]. PPPs are levied against banks that remain in violation of ECB-issued decisions or regulations. A non-compliant bank will be subject to daily fines, potentially reaching up to 5% of its average daily turnover, for each day the infraction persists. This penalty period has a maximum duration of six months, after which the ECB may pursue further enforcement actions. The total amount of PPPs imposed on a bank, along with the nature and extent of the breach and the name of the monitored institution involved, will be made public on the ECB Banking Supervision website.

The end of 2024 will also mark an important milestone for the banking sector within the European Union. Banks falling within the scope of the European Banking Authority's implementing technical standards on Pillar 3 disclosures on environmental, social, and governance risks will also need to start disclosing their credit portfolio alignment with net zero scenarios.

In a separate analysis of the European banking sector's alignment with the EU climate objectives, which included 95 significant institutions, the ECB highlighted that 90% of the banks' loan books are misaligned with global climate goals and the EU's 2050 climate neutrality target[5]. The ECB's findings also show that about 70% of banks' climate commitments do not correspond with their actual corporate lending practices. This gap exposes financial institutions to potential risks, including regulatory penalties, litigation, and market shifts as stricter climate policies are implemented. The delayed phase-out of high-carbon technologies and insufficient progress in renewable energy adoption are the primary reasons for this misalignment.

Though there are still gaps in the implementation by the European banks in addressing climate and environmental risks, it is encouraging to see the proactive efforts of the ECB to monitor and enforce their supervisory expectations. This approach is expected to further encourage banks to adequately manage their material C&E risks in a timely manner.



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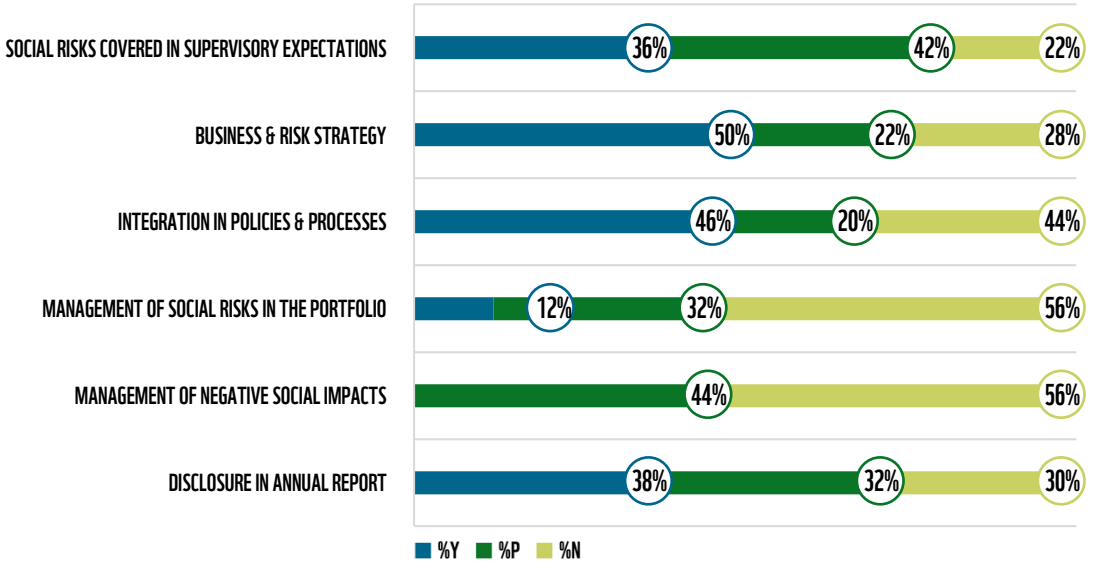
[1] European Central Bank (ECB), Making banks resilient to climate and environmental risks – good practices to overcome the remaining stumbling blocks, 2024.
[2] European Central Bank (ECB), Walking the talk: Banks gearing up to manage risks from climate change and environmental degradation, 2022.
[3] European Central Bank (ECB), ECB report on good practices for climate stress testing, 2022.
[4] European Central Bank (ECB), Good practices on climate-related and environmental risk management, 2022.
[5] European Central Bank (ECB) Risks from misalignment of banks' financing with the EU climate objectives, 2024.

SOCIAL RISKS ARE ACKNOWLEDGED IN BANKING SUPERVISION, BUT NOT MANAGED IN A MEANINGFUL WAY

- Social risks present a unique set of challenges due to their inherent complexity and multifaceted nature. Unlike environmental factors, which can often be quantified using metrics like carbon emissions or biodiversity footprint, social issues typically require qualitative assessments. These assessments are inherently more subjective and challenging to measure consistently across different contexts. In addition, social issues encompasses a cultural/local dimension of the regions involved, as no universal, 'science-based' framework can be applied uniformly across all markets.
- Nearly 80% of the jurisdiction assessed cover social risks in one way or another, either in its supervision or part of its general sustainability disclosure requirement. These social issues encompass a range of issues, including human rights violations, labor issues—including occupational health and safety—and adverse impacts on local communities, such as those affecting indigenous peoples.
- However, while social issues are often recognized within the broader framework of Environmental, Social, and Governance (ESG) risks, the current approach tends to be more of a box-ticking exercise rather than a meaningful integration and effective risk management strategy.
- This shortfall is evident in the relatively lower alignment observed in two key indicators: the management of social risks within banks' portfolios and their efforts to mitigate negative social impacts.

FIGURE 8: AVERAGE ACHIEVEMENT OF 50 COUNTRIES ON SELECT SOCIAL-RELATED BANKING SUPERVISION INDICATORS

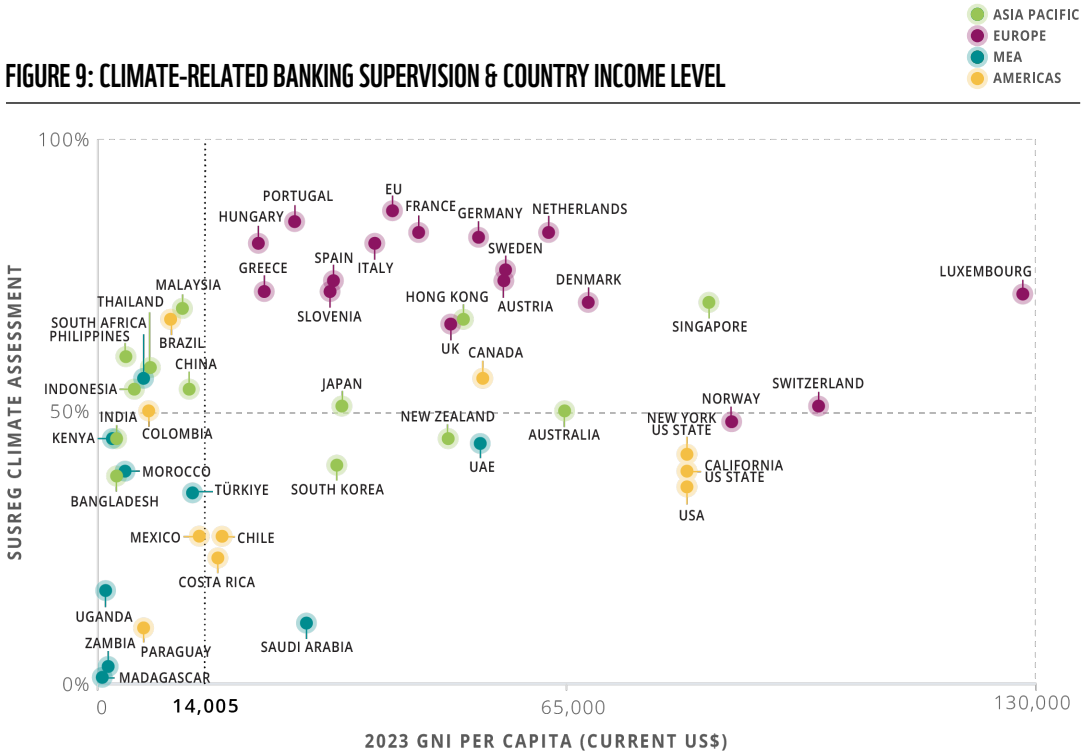


Note: The numbers displayed in the graph represent the percentage of countries in the SUSREG scope that do not meet (N), partially meet (P), and fully meet (Y) the SUSREG criteria on the respective indicators.

The Banco Central do Brasil's Sustainable Rural Credit Bureau leverages **geospatial data to identify and incentivize sustainable agricultural practices.** This enables the financial sector to **improve structing conditions to producers with strong social and environmental performance**, while also better managing risks associated with unsustainable operations.

HIGH-INCOME COUNTRIES SHOWS GROWING INTEGRATION OF CLIMATE RISKS IN BANKING SUPERVISION, BUT BROADER ENVIRONMENTAL RISK REMAIN UNADDRESSED

FIGURE 9: CLIMATE-RELATED BANKING SUPERVISION & COUNTRY INCOME LEVEL

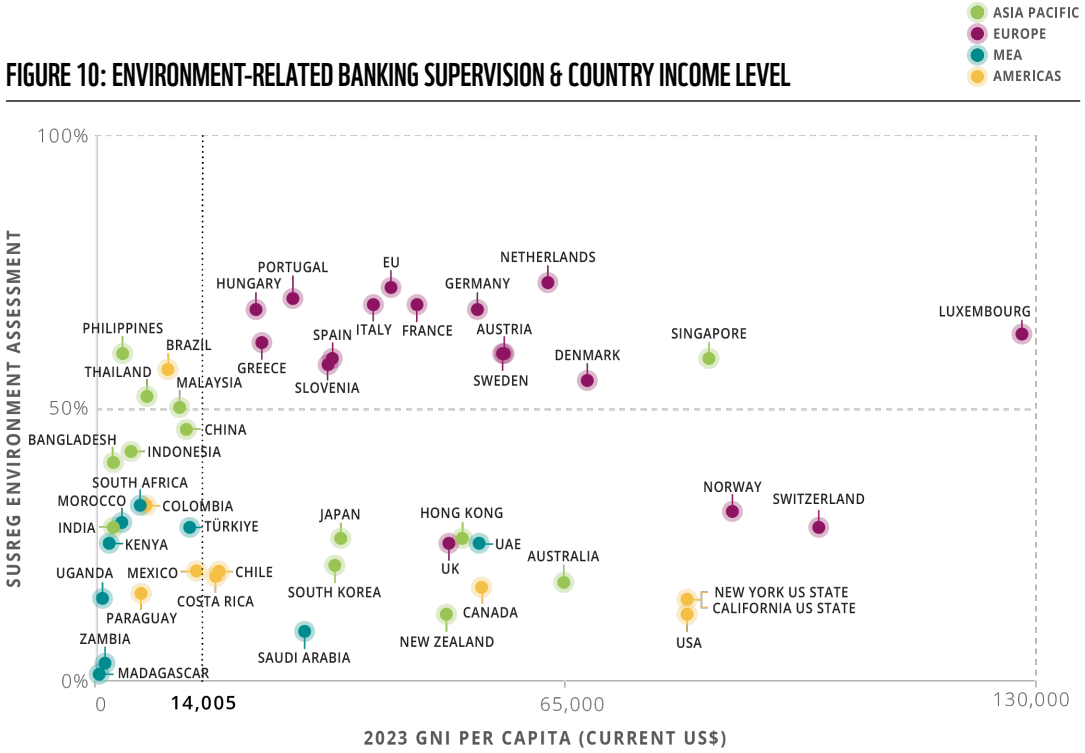


Source of GNI per capita: The World Bank, 2024.
Note: GNI per capita (formerly GNP per capita) refers to the gross national income converted to U.S. dollars, divided by the mid-year population. For the 2025 fiscal year, the World Bank classifies high-income countries as those with a GNI per capita of $14,005 or more since July 2024. This graph incorporates data from the SUSREG environmental assessment, with California and New York attributed the same GNI per capita as the overall USA.

- High-income countries carry a significant responsibility to implement climate and nature banking supervision, not only due to their historical contribution to global emissions but also because of their advantage in financial and technological resources, leadership in international forums, and ability to influence global supply chains.
- This year, a noticeable trend has emerged in the way banking supervision on climate and nature related risks are evolving across different countries with different income levels. High-income countries are making notable progress, with 68.9% (20 out of 29) achieving alignment above 50% in the SUSREG climate banking supervision assessment (Figure 9), indicating a stronger and steady progress of climate-related risks integration into banking regulations.
- A recent report from the Network for Greening the Financial System (NGFS)[1] further underscores this progress, highlighting that financial institutions in advanced economies are leading the way in key climate-related indicators, including public decarbonization commitments and transition planning.
- However, despite this progress, nearly half (48%) of high-income countries have yet to adequately address broader environmental risks, with 14 out of 29 scoring below 50% on the SUSREG environmental assessment (Figure 10). This gap highlights a critical need for these countries to extend their focus beyond climate-related banking supervision and incorporate broader environmental risks into their regulatory frameworks.

[1] Network for Greening the Financial System (NGFS), Tailoring Transition Plans: Considerations for EMDEs, 2024.

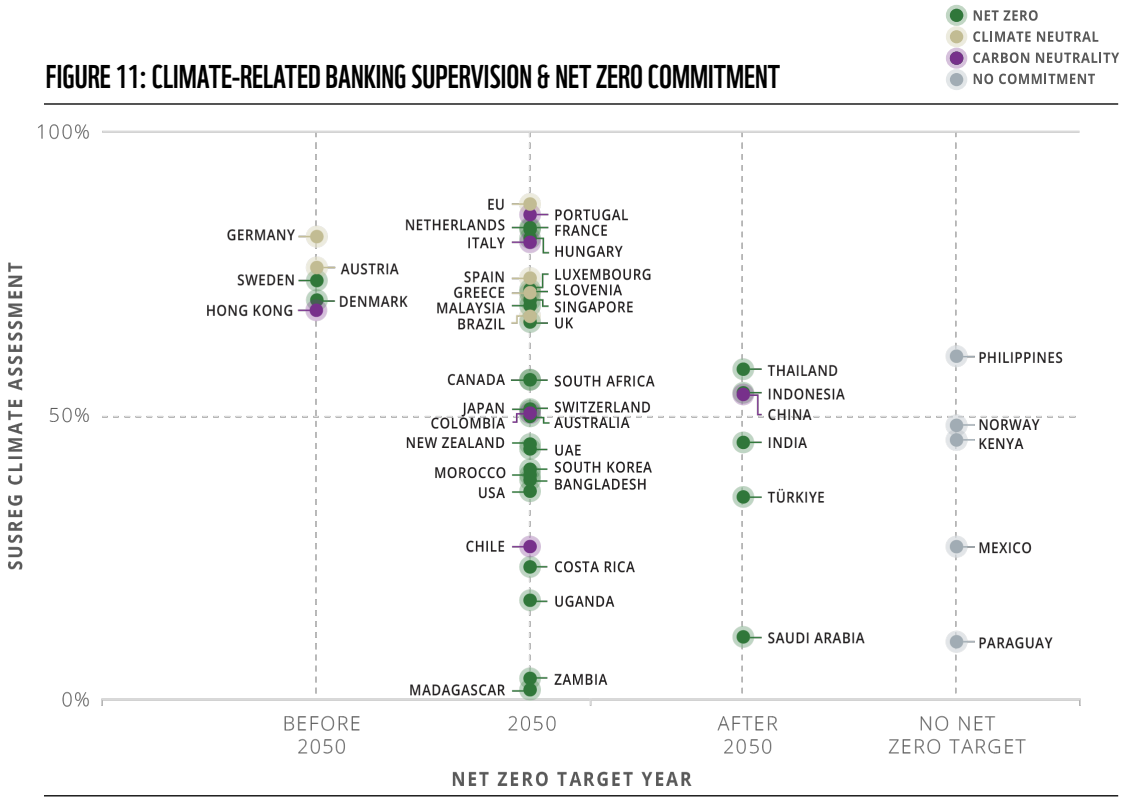
FIGURE 10: ENVIRONMENT-RELATED BANKING SUPERVISION & COUNTRY INCOME LEVEL



Source of GNI per capita: The World Bank, 2024.
Note: GNI per capita (formerly GNP per capita) refers to the gross national income converted to U.S. dollars, divided by the mid-year population. For the 2025 fiscal year, the World Bank classifies high-income countries as those with a GNI per capita of $14,005 or more since July 2024. This graph incorporates data from the SUSREG environmental assessment, with California and New York attributed the same GNI per capita as the overall USA.

BANKING SUPERVISORS FROM 16 COUNTRIES COMMITTING TO NET ZERO TARGET STILL LAGGING IN SUPERVISION FOR CLIMATE RISKS

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



Source of countries' net zero target: Net Zero Tracker (2024) and internal verification conducted by the authors.
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.

- Achieving net-zero greenhouse gas emissions by 2050 has become the centerpiece of global climate policy, with governments around the world setting ambitious targets to meet this goal. On the private side, some banks have started to align their portfolios with this global objective[1].
- Reaching the global climate goals requires credible and actionable plans from both individual institutions and the entire economies. Central banks and supervisors play a pivotal role in this effort by developing comprehensive roadmaps that outline long-term expectations and immediate actions.
- Encouragingly, the Net-Zero Banking Alliance (NZBA) has made significant strides[2], with over two-thirds of its member banks setting targets aligned with the 1.5°C climate scenarios. Furthermore, the alliance has grown substantially, now encompassing a broad range of banks from emerging markets, demonstrating a global commitment to this cause.
- However, challenges remain. The latest SUSREG assessment reveals that 16 countries committed to achieving net-zero have yet to implement adequate climate policies within their banking institutions, as indicated by their sub-50% climate scores. While this highlights gaps that still need to be addressed, there is also positive progress, with several countries showing improvement compared to last year including Greece, Denmark, South Africa, Slovenia, Switzerland, Japan, Indonesia.
- The general improvement in EU member state climate banking supervision is also attributed to the enactment of the Corporate Sustainability Reporting Directive (CSRD) and Corporate sustainability due diligence (CSDD) which mandate the disclosure of climate transition planning for companies and financial institutions in scope.

The **ECB expect significant institutions in the EU to disclose the institution's financed Scope 3 GHG emissions**. Institutions are expected to disclose:

- The amount or percentage of **carbon-related assets in each portfolio in € millions or as a percentage of the current portfolio value** and, to the extent possible, a forward-looking best estimate of this amount or percentage over the course of their planning horizon.
- **The weighted average carbon intensity of each portfolio**, where data are available or can be reasonably estimated and, to the extent possible, a forward-looking best estimate of this weighted average carbon intensity over the course of their planning horizon.

[1] European Central Bank (ECB), An examination of net-zero commitments by the world's largest banks, 2023.
[2] UNEP FI, Net Zero Banking Alliance: 2023 Progress Report, 2023.

THE BANGKO SENTRAL NG PILIPINAS (BSP) OFFERS ADDITIONAL SINGLE BORROWER'S LIMIT AND ZERO PERCENT RESERVE REQUIREMENT AGAINST ELIGIBLE GREEN PROJECTS AND BONDS

The Bangko Sentral ng Pilipinas (BSP) has introduced new regulations to promote green lending through Circular No. 1185[1], which was issued in December 2023. This initiative is part of the BSP's 11-point Sustainable Central Banking (SCB) strategy aimed at scaling up sustainable finance and support the climate strategies and sustainable development goals of the Philippines. Towards this end, the circular outlines two significant incentive measures for banking institutions.

The first measure offers an additional 15% Single Borrower's Limit (SBL) on loans, credit accommodations, and guarantees for financing eligible green or sustainable projects, including transitional activities aimed at decarbonization. Financed projects must align with the listed principles or eligible categories, such as the 2022 Strategic Investment Priority Plan, the Republic of the Philippines Sustainable Finance Framework, the Philippines Sustainable Finance Guiding Principles, the ASEAN Taxonomy for Sustainable Finance, or the Philippine Sustainable Finance Taxonomy Guidelines. The financed projects should be legal and compliant with Philippine environmental laws and regulations. Consistent with existing BSP guidelines on credit risk management, lending banks are expected to have controls in place to protect their interests when providing financing to companies, sponsors, or owners. These controls may include measures such as negative pledge covenants, lien on shares, or insurance. Notably, the top-up 15% limit applies exclusively to non-DOSRI/ subsidiary/affiliate loans, credit accommodations, and guarantees.

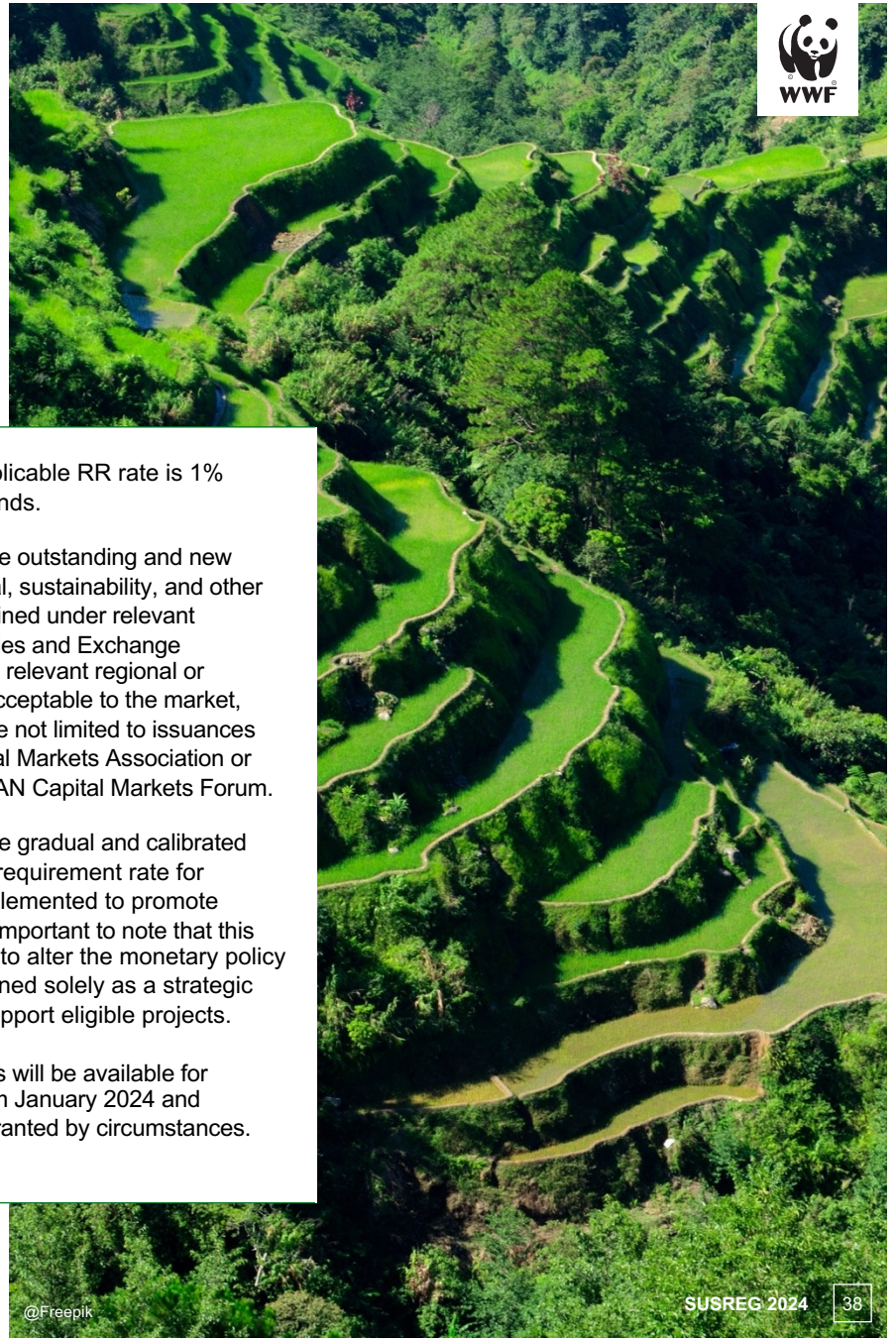
Moreover, banks must evaluate the credit risk concentration arising from total exposures to all borrowers involved in the financed eligible projects. This evaluation should be considered in their internal assessment of capital adequacy, relative to their overall risk profile and operational environment.

The second measure involves the gradual reduction of the reserve requirement (RR) rate to zero percent for new and outstanding sustainable bonds issued by banks. Starting at 3%, this ratio will gradually decrease to 0% over two years. The first year sees a reduction of 2 percentage points, followed by an additional 1 percentage point in the second year. In January 2024, the applicable RR rate is 1% against such types of bonds.

Sustainable bonds include outstanding and new issuances of green, social, sustainability, and other sustainable bonds as defined under relevant regulations of the Securities and Exchange Commission and/or other relevant regional or international standards acceptable to the market, which may include but are not limited to issuances of the International Capital Markets Association or endorsement of the ASEAN Capital Markets Forum.

The BSP stressed that the gradual and calibrated reduction in the reserve requirement rate for sustainable bonds is implemented to promote sustainable finance. It is important to note that this measure is not intended to alter the monetary policy stance; rather, it is designed solely as a strategic tool to incentivize and support eligible projects.

Both regulatory measures will be available for a period of two years from January 2024 and may be extended as warranted by circumstances.



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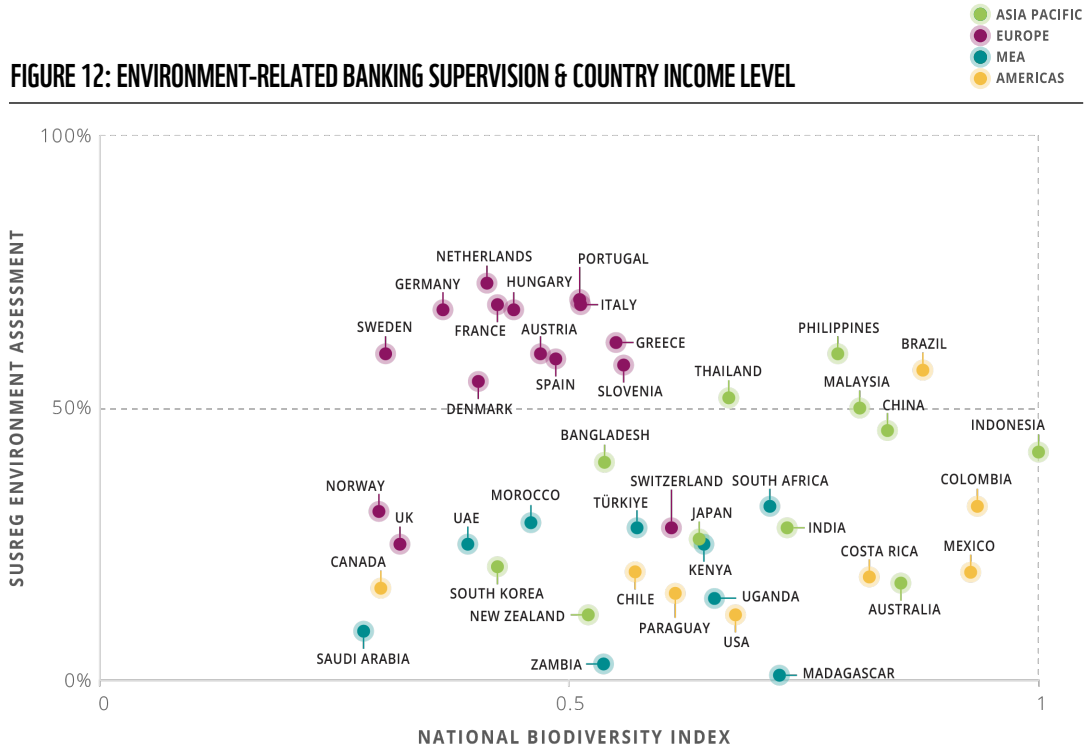
[1] Bangko Sentral ng Pilipinas (BSP), Circular no. 1185, 2023.

NATURE RISKS REMAIN A SIGNIFICANT CONCERN, AS 31 OUT OF 50 JURISDICTIONS SHOWING LESS THAN 50% ALIGNMENT WITH SUSREG'S ENVIRONMENTAL CRITERIA

FIGURE 12: ENVIRONMENT-RELATED BANKING SUPERVISION & COUNTRY INCOME LEVEL



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.

- International efforts to address nature-related financial risks have been growing steadily. Ten multilateral development banks (MDBs) have come together to establish common principles for defining and tracking investments that are nature-positive[1]. The Network for Greening the Financial System (NGFS) has created a conceptual framework for central banks and supervisors[2] to assess nature-related risks. Additionally, the Organisation for Economic Co-operation and Development (OECD), in collaboration with the European Commission, has released policy recommendations on managing nature-related risks and opportunities[3]. The World Bank has also begun incorporating nature-related risk analysis into its collaborative programs in Korea and Malaysia [4] [5].
- However, this has not been translated yet in a meaningful way towards the supervision of broader environmental risks within the banking sector. The risks remain a significant concern, as 31 out of 50 jurisdictions assessed show less than 50% alignment with SUSREG's environmental criteria. Moreover, 7 out of the top 10 biodiversity hotspot nations lag in their banking supervision on nature.
- This is confirmed by a recent FSB stocktake[6] that reveals financial authorities in member jurisdictions are at various stages in addressing biodiversity and nature-related risks. Some have advanced to analytical work, while others focus on monitoring international developments. A few have opted not to engage yet, citing data gaps and the priority given to climate risks, where data and analysis are more mature.
- On a positive note, countries with high biodiversity indices, and consequently significant biodiversity threats, like Brazil, have shown some progress over the past year, albeit modestly. Brazil launched a public consultation on the Disclosure of Metrics in the Social, Environmental, and Climate Risks and Opportunities Report (GRSAC Report). Additionally, the country introduced a Sustainable Taxonomy Action Plan, addressing critical areas such as biodiversity and ecosystem protection, conservation and forest management, safeguarding water and marine resources, and fostering a transition to a circular economy.

Bangko Sentral Ng Pilipinas published a preliminary analysis on **The Impact of Biodiversity Loss on the Philippine Banking System**. The report explores the extent to which Philippine banks are potentially exposed to risks from biodiversity loss through their lending portfolio and its impact on bank solvency using a stylized credit stress-testing exercise. Analysis was conducted using data across universal and commercial banks (UKBs)'s outstanding from end-December 2010 to end-December 2021 using a fixed assumption on biodiversity depletion rate.

[1] MDB Common Principles for tracking nature-positive finance, 2021.
[2] Network for Greening Financial System (NGFS), Nature-related Financial Risks: a Conceptual Framework to guide Action by Central Banks and Supervisors, 2024.
[3] Organisation for Economic Co-operation and Development (OECD), A supervisory framework for assessing nature-related financial risks, 2023 .
[4] World Bank, Nature-Related Risk Assessment Approaches for the Financial Sector– Applicable Approaches and Implications in East Asia and Pacific, 2024.
[5] Bank Negara Malaysia and the World Bank Announce Initiatives to Enable the Financial Sector to Support Nature-Positive Outcomes, 2023.
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ASSESSMENT OF EXPOSURE OF THE FINANCIAL SYSTEM TO NATURE LOSS IN THE UK

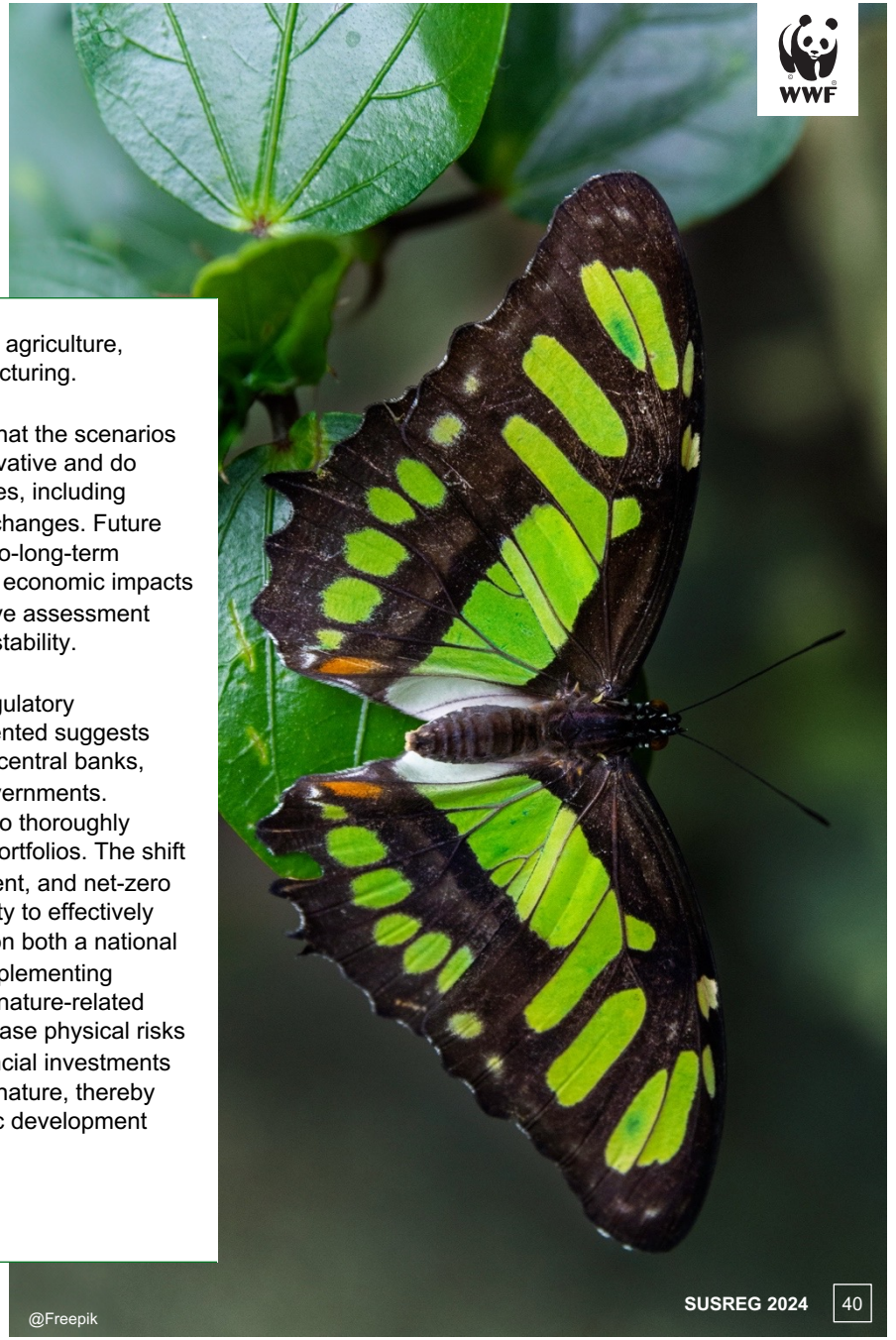
The recent "Greening Finance for Nature" report by the Green Finance Institute[1] explores the relationship between nature-related financial risks and the UK's economy. The objective of this project was to assess the materiality of nature-related risks to the UK financial sector both in the near-term and the longer-term. The study set within the context of the "Too Little, Too Late" scenario world, where global mean temperatures are expected to rise by around 2°C by 2050 compared to pre-industrial levels. In this condition, actions to protect and restore biodiversity and natural capital follow current policies, which are considered insufficient to halt the negative trends.

The report mainly outlines three distinct scenarios for assessing nature-related financial risks. The Domestic Scenario focuses on the UK, highlighting chronic impacts like long-term declines in water quality, soil health, air quality, and biodiversity. Acute impacts include extended heatwaves, droughts, and wildfires in the early 2030s, exacerbating health issues, reducing agricultural productivity, and causing significant capital damage. The International (Supply Chain) Scenario examines global supply chain effects, featuring chronic impacts such as declining soil health and pollinator loss, which affect agricultural yields. Acute impacts include multiple breadbasket failures and geopolitical instability around 2030, leading to trade wars and overexploitation of fisheries, underscoring the interconnectedness of global trade and its cascading financial effects. The Health (AMR-Pandemic) Scenario addresses antimicrobial resistance (AMR) alongside livestock disease and a zoonotic pandemic. Acute impacts include a major livestock disease reducing poultry and livestock production, which then transfers to humans, causing a pandemic with severe economic repercussions. This last scenario emphasizes the potential for health crises to disrupt economic stability and the importance of managing biological risks.

The above scenarios further leveraged to examine new research on the financial impacts of nature and biodiversity loss on the loan portfolios of seven major UK banks. Three main scenarios were employed: a baseline scenario (no biodiversity loss), a domestic scenario (chronic and acute impacts on UK ecosystem services), and an international scenario (impacts on the UK through international supply chains). The preliminary result reveals that potential adjustments in average loan values vary by sector, with agriculture facing up to -9.5%, electricity and utilities -2.3%, and manufacturing and transport around -1%. Across the banks, the total adjustment in the values of domestic holdings could reach up to 4.0–5.2%, depending on the bank's portfolio structures. The most at-risk sectors include agriculture, utilities, real estate, and manufacturing.

The report also acknowledged that the scenarios used in this analysis are conservative and do not capture all potential outcomes, including catastrophic ecological regime changes. Future analyses should extend to mid-to-long-term scenarios and consider broader economic impacts to provide a more comprehensive assessment of biodiversity loss on financial stability.

While not explicitly exploring regulatory implications, the evidence presented suggests a compelling case for action by central banks, supervisors, regulators, and governments. Financial institutions are urged to thoroughly assess these risks within their portfolios. The shift towards a nature-positive, resilient, and net-zero economy presents an opportunity to effectively mitigate financial stability risks on both a national and global scale. Proactively implementing strategies to price and manage nature-related risks early on will not only decrease physical risks to society but also channel financial investments towards activities that enhance nature, thereby promoting sustainable economic development and resilience.



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[1] Green Finance Institute (GFI), Assessing the Materiality of Nature-Related FInancial Risks for the UK, 2024 .

CENTRAL BANKING

INTEGRATION OF SUSTAINABILITY INTO MONETARY POLICY AND CENTRAL BANKING ACTIVITIES SHOWS QUITE STAGNANCY OVER THE PAST THREE YEARS, ESPECIALLY OUTSIDE OF THE EUROPE REGION

FIGURE 13: AVERAGE FULFILLMENT OF CENTRAL BANKING CRITERIA

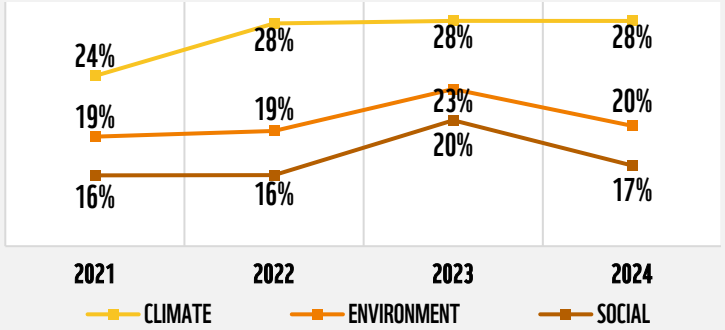
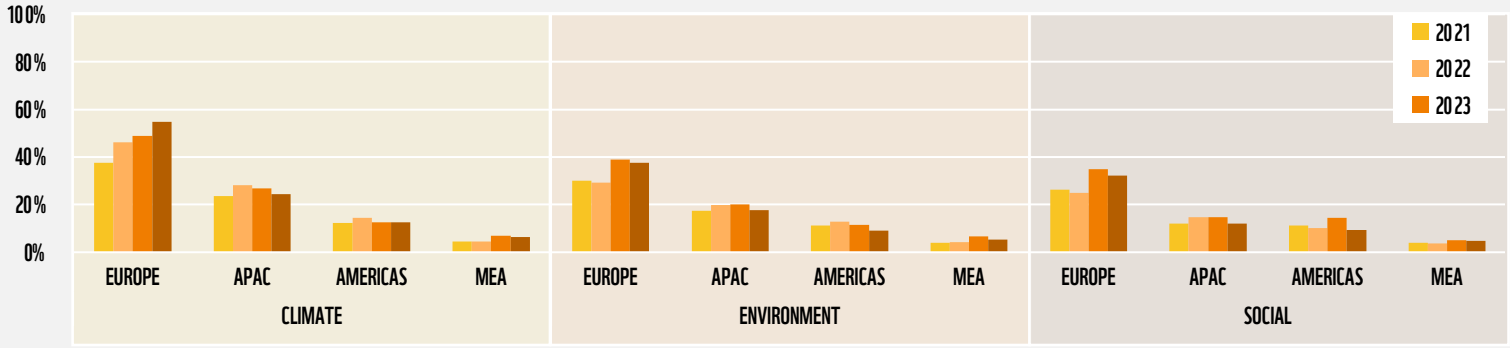


FIGURE 14: AVERAGE FULFILLMENT OF CENTRAL BANKING CRITERIA PER REGION



CLIMATE

Although climate-related considerations show the highest level of fulfillment across all four regions, progress in central banking activities—such as integration into monetary policy, investment of non-monetary portfolios, and internal leadership—has shown some stagnation compared to advancements in banking and insurance supervision.

Europe, which has the highest overall fulfilment, stands out with 12 countries achieving more than 50% climate integration in their central banking activities. This is largely driven by Eurosystem countries, where several monetary policy tools are implemented at the system level. Outside the European Union, the United Kingdom and Hong Kong are notable for their significant integration of climate considerations in these areas.

ENVIRONMENT

Stagnation has also been observed in the integration of environmental considerations into monetary policy and central banking activities, with a slight decline in progress from 2023 to 2024. This decline is largely attributed to the addition of new countries in the SUSREG scope, many of which have a low level of integration, thus dragging down the average score.

Despite this, 11 countries have shown modest progress, with France leading the way, demonstrating a notable 14% increase. This improvement is driven by several initiatives led by the Banque de France, including disclosing the biodiversity impact of its investments, reporting in alignment with the EU taxonomy, implementing an ESG policy in asset management, and conducting qualitative ESG assessments for collateral evaluation through its In-house Credit Assessment Systems (ICASs).

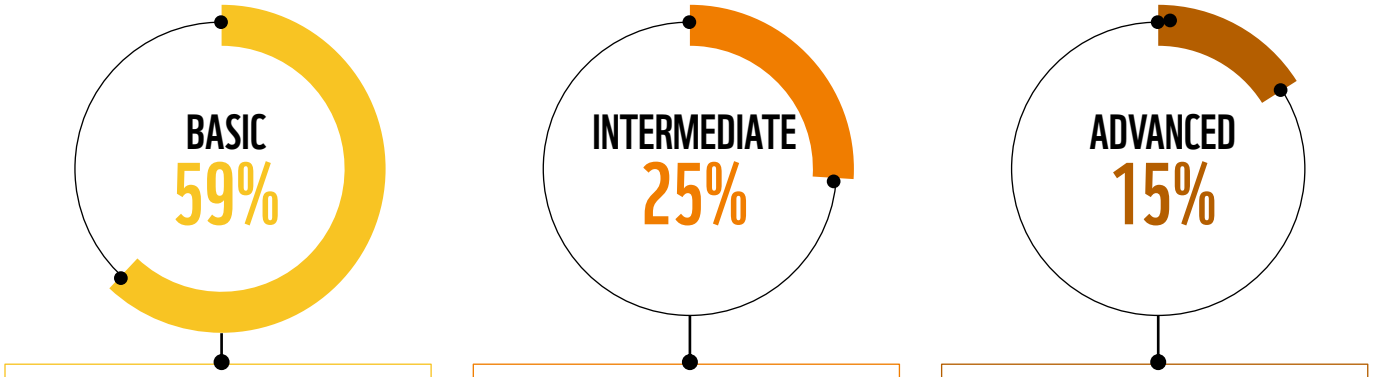
SOCIAL

Compared to climate and environmental considerations, social aspects remain the least integrated into central banking activities, reflecting similar trends in banking and insurance supervision. Only 14 out of 50 countries have aligned more than 25% with the SUSREG criteria, with two countries in the APAC region (Malaysia and Hong Kong), and the rest in Europe, where social considerations are broadly included under the general ESG criteria.

This limited focus on social aspects can be attributed to several factors. Central banks have traditionally prioritized financial stability and inflation control, as well as areas where environmental and climate risks are more directly linked to systemic financial risks. In contrast, social considerations—such as inequality and labor issues—are often viewed as more challenging to quantify and integrate into central banks' portfolio management practices, making their inclusion less common.

SUSTAINABILITY IN MONETARY POLICY FALLS SHORT, WITH CENTRAL BANKS MEETING JUST 25% OF INTERMEDIATE AND 15% OF ADVANCED INDICATORS

FIGURE 15: SUSREG CENTRAL BANKING ACTIVITIES PROGRESS FOR CLIMATE & ENVIRONMENT ACROSS THREE DISTINCT CATEGORIES



- Central banks membership in the NGFS
- Central banks internal organisation and resources on sustainability
- Assessment and disclosure of central bank's portfolio exposure to E&S risks
- Asset management practice of its own portfolio

- Corporate asset purchase programs
- Foreign exchange reserves management
- Subsidised and targeted loans
- Inclusion of E&S in the central bank's objective
- TCFD disclosure by central banks
- Taxonomy alignment of its portfolio

- Collateral framework
- Reserve requirements
- Central bank phase out plan on high risk assets

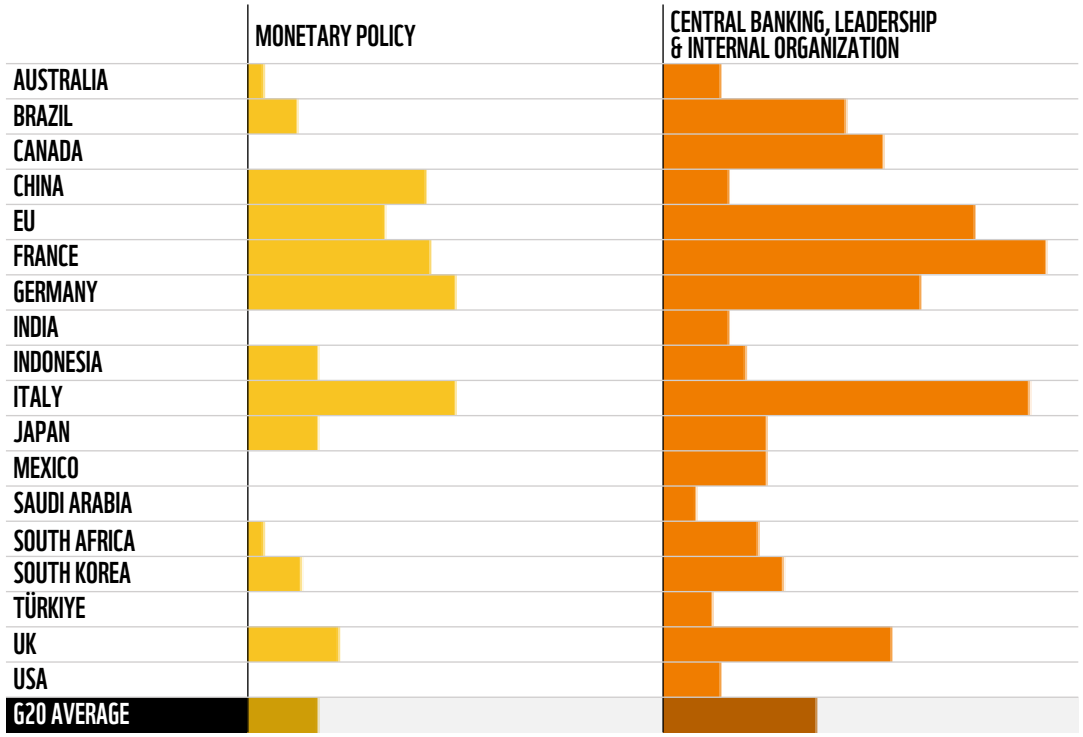
Note: The number displayed on the graph represents the average fulfillment of indicators for the climate and environmental assessment. Partially met criteria are assigned a 50% fulfillment, while fully met criteria result in 100% fulfillment.

- The central banks assessed have fulfilled 59% of basic indicators, which focus on internal leadership, such as membership in the NGFS, allocating dedicated resources for sustainability, and conducting environmental and social (E&S) assessments of their own portfolios.
- However, integration drops sharply for intermediate indicators, with only a 25% achievement rate. This highlights a low level of incorporation of climate and environmental risks into key monetary policy tools, including corporate asset purchase programs, foreign exchange reserve management, and targeted refinancing lines. Furthermore, very few central banks have made disclosures aligned with the TCFD or sustainable taxonomy frameworks.
- For advanced indicators, the fulfillment rate falls to just 15%, reflecting limited progress in integrating E&S risks into collateral frameworks, reserve requirements, and phasing out the most harmful assets from central bank portfolios.

The **Hong Kong Monetary Authority (HKMA) integrates ESG factors across its public and private market investments to promote sustainability.** For public market investments, **HKMA requires the external managers of Hong Kong and China equities to adhere with the Principles of Responsible Ownership and adhere to international ESG standards**. ESG considerations are also embedded in the selection, appointment, and monitoring of external managers, as well as in the credit risk analysis of its bond portfolio. Since 2015, HKMA has been actively investing in green, social, and sustainability bonds and continues to expand its ESG bond portfolio. Additionally, it invests in ESG-themed equity mandates and explores new ESG investment opportunities.

G20 CENTRAL BANKS BEGIN TO SHOW LEADERSHIP IN CLIMATE & ENVIRONMENTAL ASPECT, BUT GAPS REMAIN IN INTEGRATION INTO MONETARY POLICY

FIGURE 16: 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 assessing the fulfillment of central bank sustainability indicators, monetary policy integration remains notably weak across several G20 countries. Eight countries align with less than 10% of SUSREG criteria in this category, with Canada, India, Mexico, Saudi Arabia, Türkiye, and the USA showing no progress at all (0%). This underscores a significant gap in embedding sustainability considerations into monetary policy—a crucial area given its broad influence on financial systems and economies. Several countries, particularly within the Eurosystem—such as the European Union, France, Germany, and Italy—along with the UK and China, have shown some progress in this area.
- While monetary policy progress has been slow, central banks have made more headway in terms of internal leadership. In this area, six countries have fulfilled over 50% of the indicators, with countries like Brazil and Canada demonstrating relatively strong leadership initiatives.
- The disparity between leadership progress and weak monetary policy integration is concerning, particularly given that monetary policy decisions have a far-reaching impact on economies and financial markets. These decisions influence investment choices and shape economic behavior on a larger scale.

In June 2024, **Banca d'Italia released its Annual Report** on sustainable investments and climate-related risks, detailing the integration of ESG considerations into its investment strategies and financial risk management across various asset portfolios, including foreign currency reserves and the Supplementary Pension Fund. **The report disclosed a range of environmental and social metrics, such as Weighted Average Water Intensity and Trade Union Representation (%)**, highlighting the bank's commitment to transparency and sustainability in its own investment.

RBI NOTED THAT CLIMATE CHANGE CAN AFFECT INFLATION AND GROWTH

Emerging markets and developing countries face a significant dilemma: balancing the pursuit of growth and developmental goals with advancing their climate-related nationally determined contributions. For a country like India, this challenge is particularly pronounced. India must strategize effectively to achieve its ambitious 2070 net-zero target while ensuring its economy continues to grow.

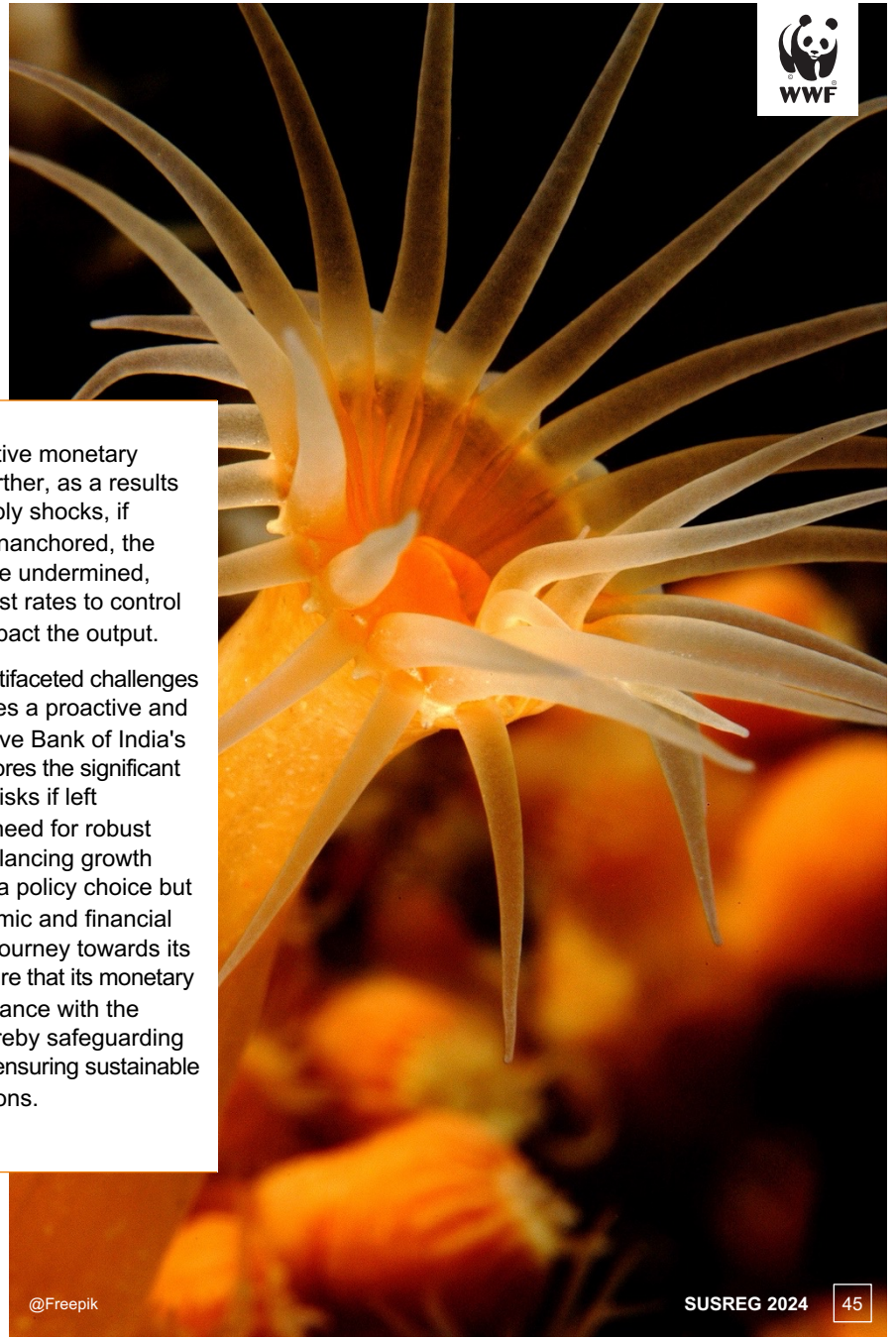
Furthermore, the risks associated with climate change, if materialized, can significantly impact India's economic stability and growth. When climate-related disasters and shifts occur, they can disrupt industries, reduce productivity, and strain financial resources, thereby underlining the importance of integrating climate resilience into the country's financial and economic planning.

Against this backdrop, the Reserve Bank of India (RBI) examined the macroeconomic effects of climate change in India[1]. Using the National Institute Global Econometric Model (NiGEM), the study adopts the standard NGFS (Network for Greening the Financial System) scenarios to analyze the macroeconomic impacts. The key scenarios include (i) Below 2°C, (ii) Current Policies, (iii) Delayed Transition, (iv) Divergent Net Zero, (v) Nationally Determined Contributions (NDCs), and (vi) Net Zero 2050. Delayed and lax policy measures were projected to negatively affect both growth and the inflation outlook in the medium to long term.

In a counterfactual scenario, ceteris paribus, it is found that higher physical risks could lead to a GDP decline of about 1-3% from the baseline level of no impact of climate change by 2030. By 2047, this impact could exacerbate, resulting in a GDP decrease of approximately 3-9%, depending on the extent of risk mitigation implemented. Further, it may also impact inflation and its volatility through various macroeconomic linkages.

In its 2024 monetary policy report[2], the RBI further noted that the reduction in potential output and productivity, induced due to physical risks of climate change, ceteris paribus, might result in a decline in the natural rate of interest. Additionally, with frequent adverse shocks inducing inflationary pressures, the central bank may need a restrictive monetary policy to compact its effects. Further, as a results of climate-induced adverse supply shocks, if inflation expectations become unanchored, the central bank's credibility could be undermined, necessitating even higher interest rates to control inflation, which would further impact the output.

In conclusion, addressing the multifaceted challenges posed by climate change requires a proactive and integrated approach. The Reserve Bank of India's comprehensive analysis underscores the significant ramifications of climate related risks if left unaddressed and warrants the need for robust climate resilience measures. Balancing growth with sustainability is not merely a policy choice but a necessity for long-term economic and financial stability. As India envisages its journey towards its 2070 net-zero target, it must ensure that its monetary and fiscal policies are in consonance with the evolving climate landscape, thereby safeguarding the robust economic growth and ensuring sustainable development for future generations.



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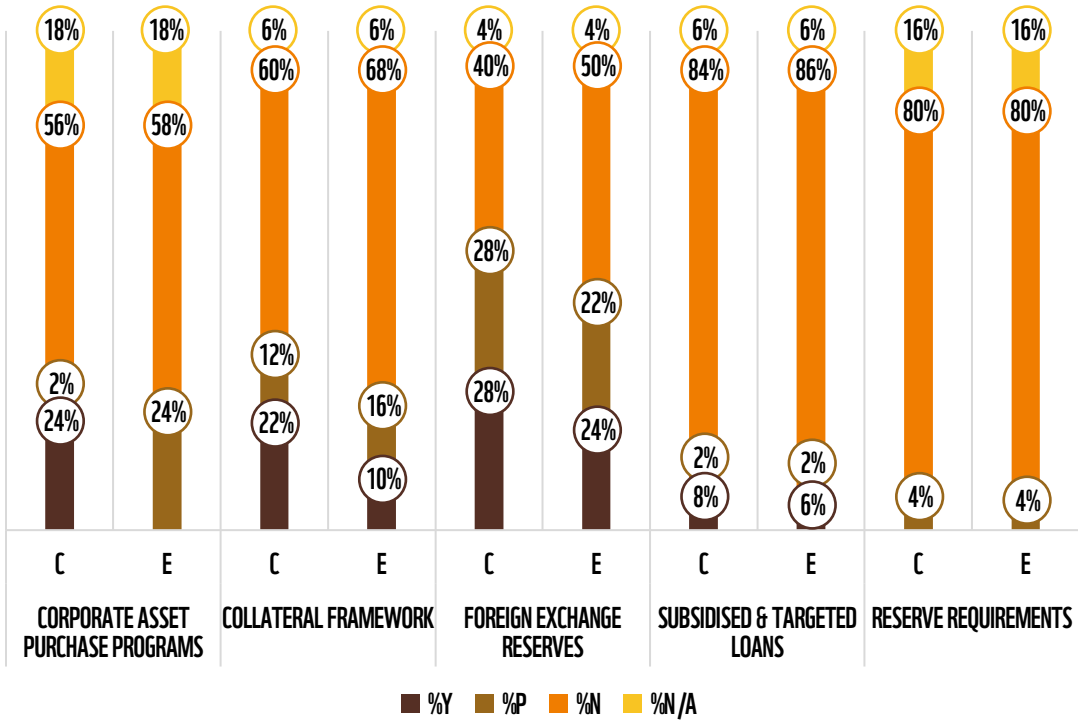
[2] Reserve Bank of India (RBI), Climate Change and Monetary Policy, published in Monetary Policy Report - April 2024.

KEY MEASURES LIKE ASSET PURCHASE PROGRAMS, TARGETED LENDING, AND RESERVE REQUIREMENTS HAVE YET TO MAINSTREAM CLIMATE AND ENVIRONMENTAL CONSIDERATIONS

FIGURE 17: AVERAGE ACHIEVEMENT OF 50 COUNTRIES ON SELECT INDICATORS OF CENTRAL BANKING



Note: The numbers displayed in the graph represent the percentage of countries in the SUSREG scope that do not meet (N), partially meet (P), and fully meet (Y) the SUSREG criteria on the respective indicators.

CORPORATE ASSET PURCHASE PROGRAMS

Incorporating sustainability considerations into the selection criteria for eligible asset purchases allows central banks to support broader goals by either divesting from assets that fail to meet sustainable criteria or increasing the weight of green assets in their purchase portfolios. However, 56% of assessed central banks did not fulfil this indicator. It's important to note that not all central banks have corporate asset purchase programs in place (18%).

COLLATERAL FRAMEWORK

Central banks can contribute to sustainability efforts through their collateral frameworks by integrating sustainability standards and E&S risk considerations into the screening criteria for eligible collateral. However, only the central banks in the EU, UK, Hong Kong, China, and South Korea fully or partially consider environmental and social (E&S) issues in their collateral assessment.

- Since November 2021, in line with HM Treasury's update to the Monetary Policy Committee's remit in March 2021, the **Bank of England published a comprehensive framework for greening its Corporate Bond Purchase Scheme (CBPS) portfolio**, with the goal of incentivizing an economy-wide transition. The **Bank committed to achieving net-zero greenhouse gas emissions associated with the CBPS portfolio by 2050**. Additionally, the Bank set an interim target to reduce the Weighted Average Carbon Intensity (WACI) of the portfolio by 25% by 2025, compared to 2020 levels.
- The **Eurosystem committed to 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**. Additionally, the **Eurosystem will only accept marketable assets and credit claims from companies and debtors that comply with the Corporate Sustainability Reporting Directive (CSRD)** as collateral in Eurosystem credit operations once the directive is fully implemented.

FOREIGN EXCHANGE RESERVES

Foreign exchange reserve management is one avenue through which central banks can green their portfolios. Among the countries covered, 28 central banks have disclosed policies that integrate climate and environmental considerations into the management of their foreign exchange reserves. However, 20 central banks have not yet adopted such policies.

A notable example is the Riksbank of Sweden, which since 2019 has expanded its analysis of foreign exchange reserves to include the impact of assets on greenhouse gas emissions, alongside traditional considerations of risk and yield. This approach has led to the sale of certain assets that were deemed to have a high environmental impact.

SUBSIDIES & TARGETED LOANS

Central banks can also leverage green targeted lending as a tool to promote climate action and environmental protection. By offering lower or zero-interest relending programs, they can incentivize financial institutions to increase lending for environmentally sustainable and climate-friendly projects, thereby directly supporting the transition to a greener economy.

However, only five central banks—China, Japan, Malaysia, Bangladesh, and Hungary—currently offer subsidized loans or preferential refinancing lines based on environmental and social (E&S) considerations. Most central banks have not yet adopted this approach to support their sustainability agendas.

RESERVE REQUIREMENTS

Reserve requirements can be adjusted to create incentives and penalties by lowering mandatory reserve rates for green assets and raising them for brown assets. However, no central bank has yet implemented this using a comprehensive risk-based approach. Only Indonesia and the Philippines have partially adopted such measures by offering discounted reserve requirements for select green lending assets.

Ideally, this adjustment should be risk-based, with riskier, environmentally harmful assets assigned higher reserve requirements and safer, more sustainable assets given lower requirements. This approach would more effectively align financial stability with environmental goals.

In an effort to drive sustainability activities within the central bank mandates, **Bank Indonesia (BI) has introduced the Macroprudential Liquidity Incentive (KLM) policy, offering a potential 0.5% reduction in reserve requirements for banks that support environmentally sustainable initiatives**. Under this policy, incentives will be given for banks promoting loans with environmentally sustainable practices, such as offering loans for environmentally-friendly properties and eco-friendly vehicles. Similarly, **Bangko Sentral ng Pilipinas also implemented a gradual reduction of the reserve requirement (RR) rate for both new and outstanding sustainable bonds issued by banks, lowering it to 1% in the first year and to 0% in the second year**. In contrast, the reserve requirement for other types of bonds will remain at 3%.

Colombia's Banco de la República, as published in their **2023 Foreign Reserves Management Report**, has developed and quantified an ESG rating profile for its international reserve portfolio. The rating profile is based on data from Moody's Analytics which assesses the portfolio issuers' exposure to environmental, social, and governance (ESG) factors, measured on a scale from 1 (positive) to 5 (highly negative). At the end of 2022, ESG factors reportedly had a positive or neutral impact on 88.15% of the portfolio value, with less than 1% experiencing a negative impact.

GREEN TARGETED REFINANCING BY CENTRAL BANKS: ALL HANDS ON DECK FOR MONETARY POLICY INNOVATION

Climate change and nature loss will require massive public and private investments in mitigation and adaptation to reduce our dependency to fossil energies. But still many essential projects for our transition require more upfront capital investment before becoming operational, making them exposed to higher interest rates environments. By leveraging innovative monetary policy instruments, central banks can unlock the full potential of the financial system to drive the change our planet so urgently needs. However, there is limited development in monetary policy tools such as corporate asset purchase programs, collateral frameworks, foreign exchange reserve, reserve requirement that takes into account climate and environmental factors. Only 5 out of 50 central banks offer subsidized loans and preferential targeted refinancing lines.

WHY IS GREEN TRO IMPORTANT?

Central banks can provide liquidity to financial institutions through TROs (targeted refinancing operations) and support specific economic objectives. TROs have been effective in increasing financing to certain sectors by lowering the borrowing costs for firms without increasing banks' risk taking[1]. A recent analysis shows that green TRO is effective in lowering the overall energy transition costs[2]. A green rate of 200 bps would reduce these costs by 23.7% (EUR 3.7 billion) and could even decline by 52.7% (EUR 8.2 billion) if the cost of equity decreases in parallel. The European Central Bank (ECB)'s current TLTRO program has been criticized for inadvertently favoring carbon-intensive industries, as banks tend to lend more to high-emitting sectors to qualify for the preferential rates. Analysis shows that more than 80% of total cumulated loans issued under the ECB's TLTRO III program was geared towards polluting companies and the CO_2 emission content of new bank loans amounted to approximately 151 CO_2 megatons ($MtCO_2$) corresponding to 8% of overall CO_2 emission in the euro area at the end of 2019[3].

In our view, TROs can further augment the positive impact from ECB's actions on climate change, create the right incentives for a greener financial system and support an orderly transition to a net zero economy.

ASIAN CENTRAL BANKS ARE FILLING SOME GAPS

China has taken a pioneering step in this direction with the launch of its "Carbon Emission Reduction Facility" (CERF) - a green TLTRO program introduced by the People's Bank of China (PBC) in 2021. By the end of 2023, the outstanding amount of CERF registered RMB 541 billion (USD 76 billion) and enabled more than 150 million tons emission reduction[4]. Building on this momentum, PBC has now extended the green lending program until 2027 to boost clean energy and environmental protection efforts, aligning with the country's carbon peaking and net-zero goals including an ambitious target of RMB 15 trillion (USD 2.1 trillion) energy-saving industry by 2030 and renewable energy capacity at 1,653GW[5].

In Japan, since 2021, the Bank of Japan has rolled out a funding scheme of a total 3.6 trillion yen (USD 26 billion) of almost zero-interest (0.1% per annum) loans to 63 financial institutions targeting activities aimed at combating climate change. The "Funds-Supplying Operations to Support Financing for Climate Change Responses" program include green loans, green bonds, sustainability-linked loans and bonds with performance targets related to efforts on climate change, and transition finance[6]. The central bank offers loans twice annually that can be rolled over until 2030 to financial institutions.

In Malaysia, given the critical contribution of small and medium enterprises (SMEs) to economic growth and their role in corporate supply chains, the Central Bank of Malaysia initiated the Low Carbon Transition Facility (LCTF) and High Tech and Green Facility (HTG) to help SMEs build their technical capability and improve access to finance. To date, more than RM 1.2 billion (USD 250 million) in financing has been approved, enabling more than 550 SMEs in the low carbon transition journey[7].

[1] SUERF, Central banks' targeted refinancing operations and the climate transition, 2024.
[2] ABN AMRO, The impact of a Green LTRO on the energy transition, 2024.
[3] SUERF, Central banks' targeted refinancing operations and the climate transition, 2024.
[4] BIS, Keynote speech by Mr Yi Gang, Governor of the People's Bank of China, at the 14th Luijazui Forum, 2023.
[5] Capacity-building Alliance of Sustainable Investment, Newsroom: China Extends Green Lending Program to 2027, 2024.
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[7] Bank Negara Malaysia, Supporting SMEs Transition to Greener Practices, 2024.

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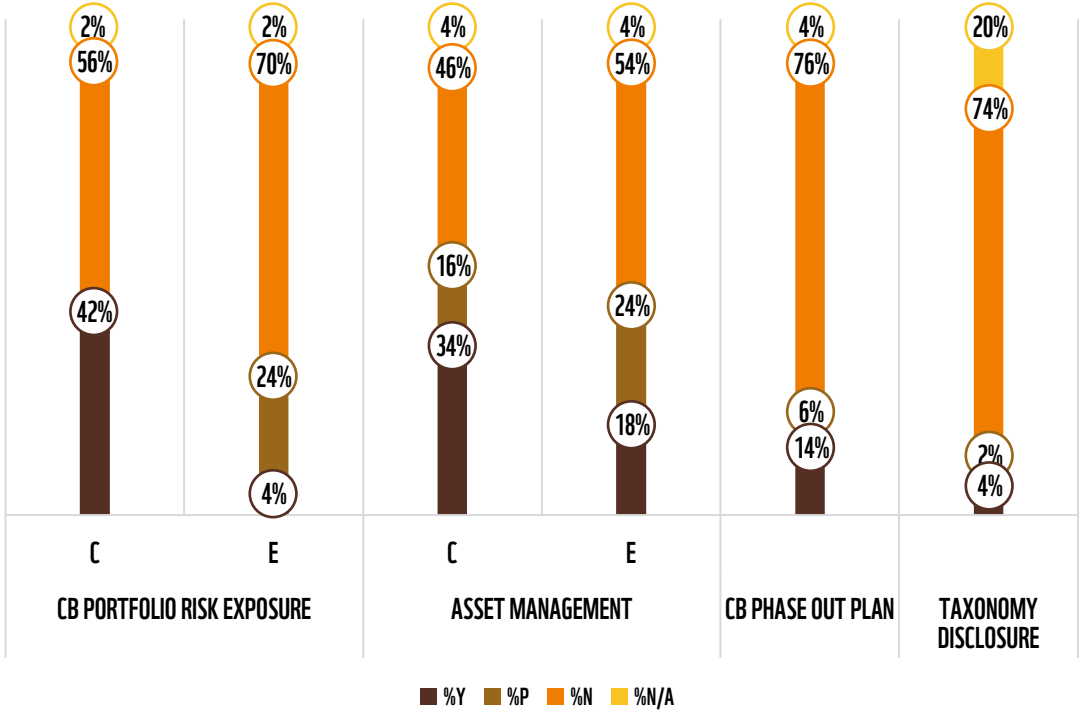
WITH A FOCUS ON CLIMATE ISSUES, CENTRAL BANKS ARE STARTING TO PHASE OUT HARMFUL ASSETS AND IMPROVE PORTFOLIO DISCLOSURES

FIGURE 18: AVERAGE ACHIEVEMENT OF 50 COUNTRIES ON SELECT INDICATORS OF CENTRAL BANKING



Note: The numbers displayed in the graph represent the percentage of countries in the SUSREG scope that do not meet (N), partially meet (P), and fully meet (Y) the SUSREG criteria on the respective indicators.

CENTRAL BANK'S PORTFOLIO RISK EXPOSURE

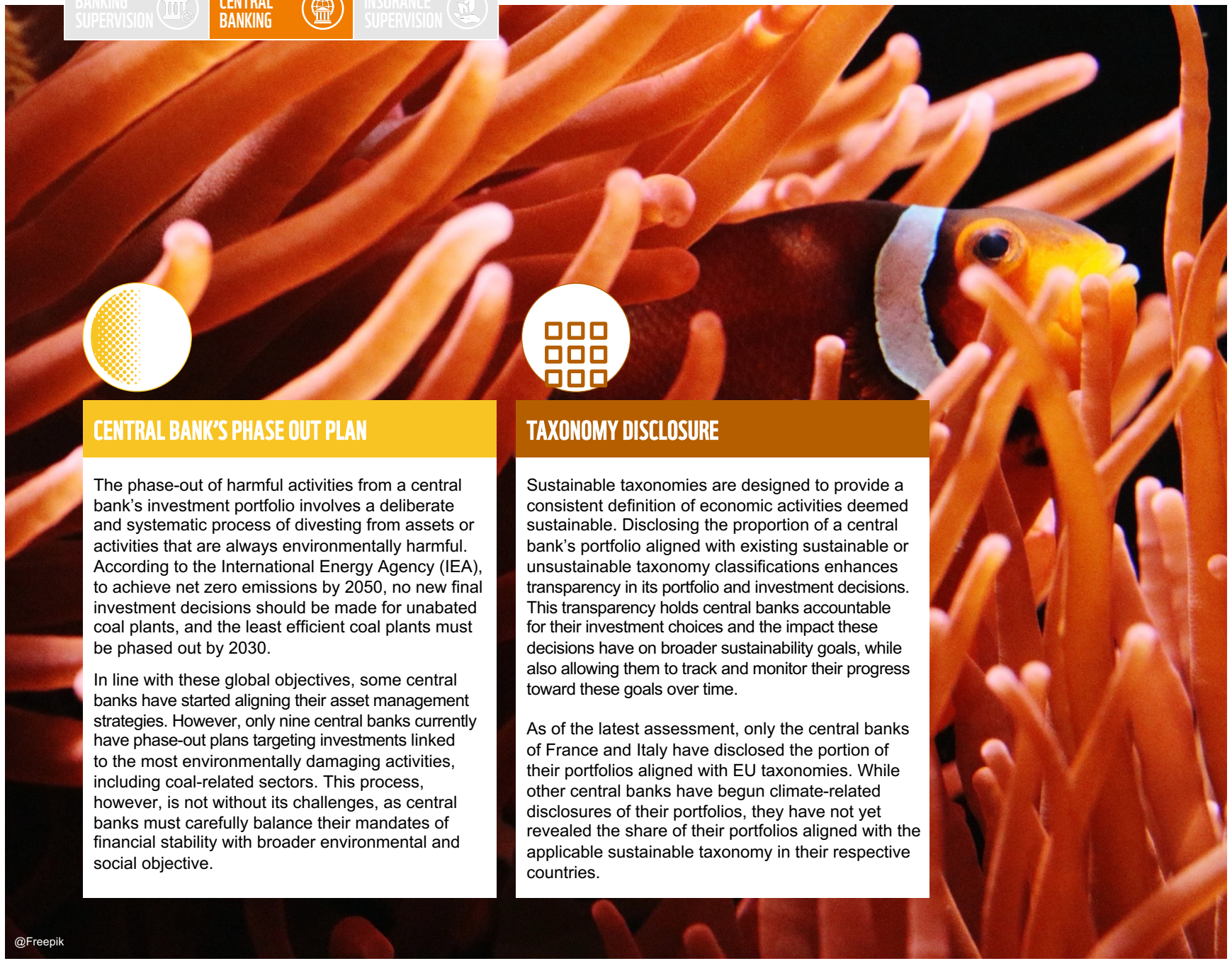
A risk exposure assessment helps central banks understand which assets or portfolios are vulnerable to various risks. Among the assessed central banks, 42% have conducted such assessments and disclosed the results, with most focusing on their Weighted Average Carbon Intensity (WACI).

Only France and Italy have gone further by providing more comprehensive disclosures that include both environmental metrics (such as biodiversity and forest cover) and social metrics (such as trade union representation and the number of employee injuries) associated with their invested assets. This broader approach offers a more detailed understanding of the full spectrum of risks tied to their investments.

CENTRAL BANK'S OWN ASSET MANAGEMENT

Central banks, as major asset holders, play a pivotal role in setting standards for sustainable finance. By integrating sustainability into their own asset management practices, central banks can lead by example, encouraging private financial institutions to follow suit.

50% of the central banks assessed have disclosed sustainable investment policies, covering specific themes or sectors, exclusion criteria, sustainability-focused manager appointments, and/or active ownership strategies. However, only 9 central banks address all three areas—climate, environmental, and social risks—in their policies.



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 are always environmentally harmful. According to the International Energy Agency (IEA), to achieve net zero emissions by 2050, no new final investment decisions should be made for unabated coal plants, and the least efficient coal plants must be phased out by 2030.

In line with these global objectives, some central banks have started aligning their asset management strategies. However, only nine central banks currently have phase-out plans targeting investments linked to the most environmentally damaging activities, including coal-related sectors. This process, however, is not without its challenges, as central banks must carefully balance their mandates of financial stability with broader environmental and social objective.

TAXONOMY DISCLOSURE

Sustainable taxonomies are designed to provide a consistent definition of economic activities deemed sustainable. Disclosing the proportion of a central bank's portfolio aligned with existing sustainable or unsustainable taxonomy classifications enhances transparency in its portfolio and investment decisions. This transparency holds central banks accountable for their investment choices and the impact these decisions have on broader sustainability goals, while also allowing them to track and monitor their progress toward these goals over time.

As of the latest assessment, only the central banks of France and Italy have disclosed the portion of their portfolios aligned with EU taxonomies. While other central banks have begun climate-related disclosures of their portfolios, they have not yet revealed the share of their portfolios aligned with the applicable sustainable taxonomy in their respective countries.

The **Monetary Authority of Singapore (MAS) excluded investments in companies that derive 10% or more of their revenue from thermal coal mining and oil sands activities**. Through this, MAS aims to reduce the weighted average carbon intensity of its equities portfolio by up to 50% by FY2030 compared to FY2018. In 2022, MAS began excluding such companies, and by 2023, it had fully divested from these holdings.

The **Bank of England (BoE) is assessing its climate portfolio exposure using the Implied Temperature Rise (ITR) metric**, which estimates the potential global average temperature increase if the world exceeded its carbon budgets at the same rate as the sovereign entities in the Bank's portfolios. According to the 2024 Climate-related Disclosure Report, the ITR metrics for the BoE's sovereign bond holdings have remained stable, aligning with the 2°C Paris Agreement target, though they fall short of the 1.5°C goal. Notably, these holdings demonstrate a lower implied temperature rise compared to a G7 reference portfolio.

The **Banque de France and Banca d'Italia have disclosed the alignment of their portfolios**, specifically the equity and corporate bond components, with **sustainable activities as defined by the EU taxonomy**. According to Banque de France's 2023 Sustainability Report, an average of 28% of the revenue from companies in the equity component of their own funds portfolio was eligible for inclusion in sustainable sectors. Meanwhile, Banca d'Italia's 2023 Report revealed that 5.3% to 7.9% of their various portfolios were aligned with the EU taxonomy.

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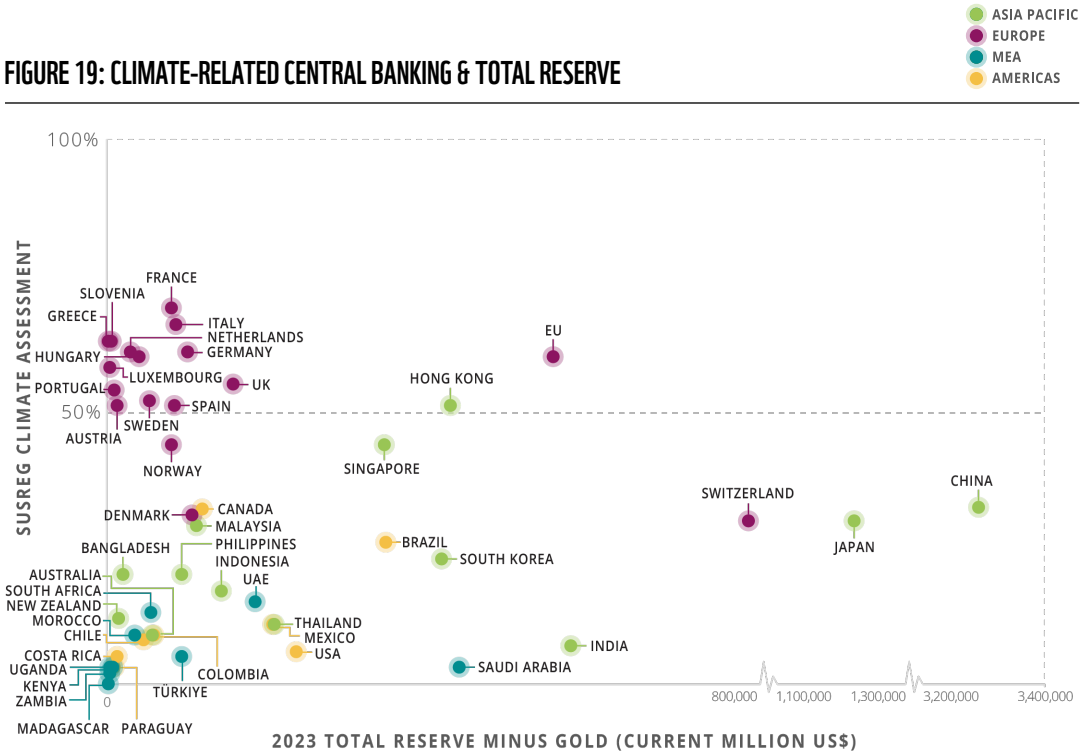
4 OUT OF 5 TOP RESERVE-HOLDING COUNTRIES ALIGNED BELOW 50% ON SUSREG CLIMATE RISK ASSESSMENT

FIGURE 19: CLIMATE-RELATED CENTRAL BANKING & TOTAL RESERVE



Source: Total reserve data was taken from the World Bank, 2024.
Note: Total reserves, excluding gold, include special drawing rights (SDRs), IMF reserve positions, and foreign exchange holdings controlled by monetary authorities. Gold holdings are not part of this calculation. Data on total reserves is available for Uganda up to 2018, for Zambia up to 2022, and for other countries up to 2023

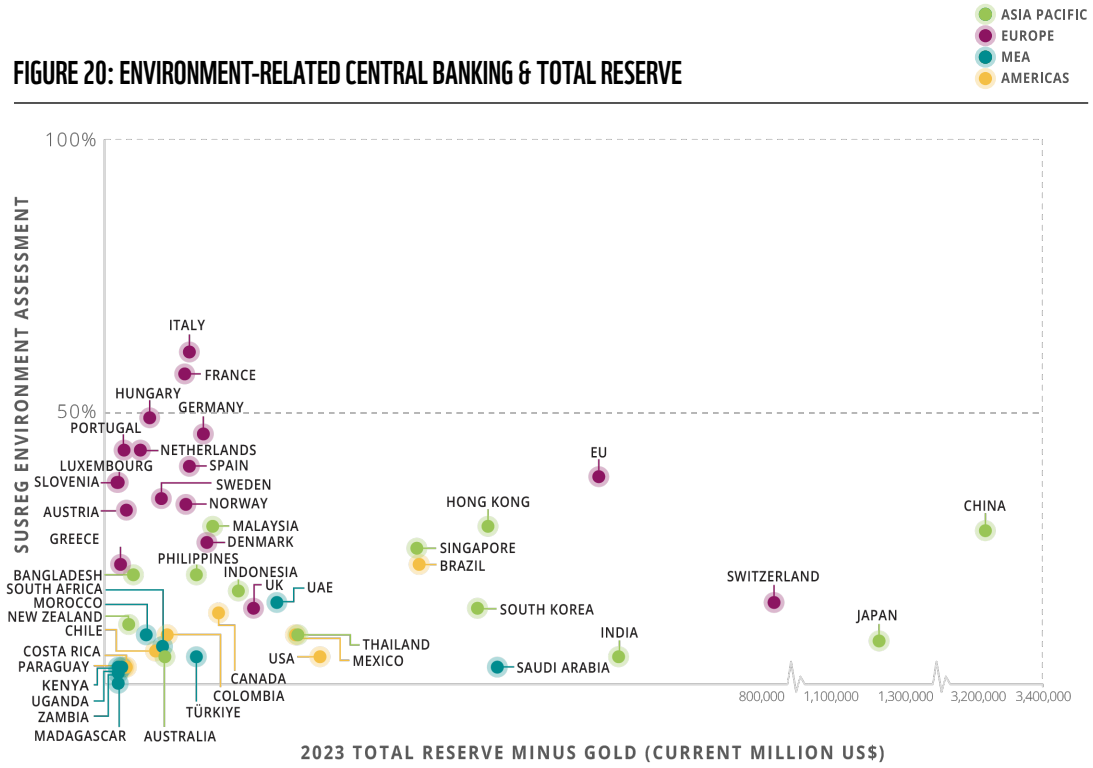
- The Network for Greening the Financial System (NGFS) emphasizes the need for central banks to adopt sustainable investment practices for their balance sheets[1], positioning themselves as role models for financial institutions and investors. To achieve this, the NGFS advocates for the incorporation of environmental criteria into various assets held by central banks, as well as into certain monetary policy tools.
- The NGFS study outlines three primary frameworks through which central banks can integrate climate-related considerations into their operations: credit operations, collateral management, and asset purchases. The practicality of these approaches varies depending on each central bank's mandates, legal frameworks, and specific national circumstances.
- However, our recent assessment revealed found that four out of five jurisdictions with the highest reserves fulfilled less than 50% of the SUSREG criteria for integrating climate-related risks into central banking activities, including the management of their monetary portfolio.
- While some countries have made progress by incorporating green assets into their collateral frameworks or foreign exchange reserve portfolios, most still lack a systematic evaluation process to fully integrate sustainability. This is evidenced by the absence of clear position statements on harmful activities, a defined active ownership strategy, and detailed criteria for assessing and managing environmental risks within their portfolios.

In 2024, **the European Central Bank (ECB) published the carbon footprint of its corporate sector assets held for monetary policy purposes** for the second time, along with climate-related information **on its staff pension fund and own fund portfolios**. This enables the ECB to effectively monitor its emission reduction progress. Data from Eurosystem holdings for 2023 showed continued advancement, with the tilting framework applied to corporate sector portfolios contributing to approximately one-fifth of the ECB's total emission reduction in 2022 and 2023. **The effectiveness of this tilting approach was confirmed in a formal review conducted in October 2023, which concluded that the framework remained adequate and was delivering the intended results.**

[1] Network for Greening Financial System (NGFS), Nature-related Financial Risks: a Conceptual Framework to guide Action by Central Banks and Supervisors, 2024.

CENTRAL BANKS WITH SUBSTANTIAL RESERVES HAVE YET TO INTEGRATE NATURE-RELATED RISKS AS REFLECTED IN THEIR LOW SUSREG ENVIRONMENTAL ASSESSMENT

FIGURE 20: ENVIRONMENT-RELATED CENTRAL BANKING & TOTAL RESERVE



Source: Total reserve data was taken from the World Bank, 2024.
Note: Total reserves, excluding gold, include special drawing rights (SDRs), IMF reserve positions, and foreign exchange holdings controlled by monetary authorities. Gold holdings are not part of this calculation. Data on total reserves is available for Uganda up to 2018, for Zambia up to 2022, and for other countries up to 2023

- When central banks allocate their reserves to corporate bonds and equities, they inadvertently also expose themselves to nature-related risks—an increasingly significant factor in financial stability stemming from the degradation of ecosystems and loss of biodiversity, including species, habitats, and genetic diversity. As biodiversity declines globally due to deforestation and pollution, financial markets are feeling the impact, and central banks, as major investors, are not exempt.
- Central banks in countries with substantial reserves have yet to fully integrate nature-related risks into their operational frameworks. This is highlighted by consistently low alignment with SUSREG environmental criteria, as none of the top 10 countries with the largest reserves meet even 50% of the threshold.
- Among the initial step for central banks in managing environmental-related risks, particularly biodiversity risk, is to analyze their exposure to these risks within their investment portfolios. This involves assessing the extent to which their equity and corporate bond holdings are linked to industries or companies that are vulnerable to environmental degradation or that contribute to it.
- A recent report from the WWF emphasizes the need for alignment between monetary and non-monetary policy portfolios with net-zero and nature-positive pathways, specifically highlighting the importance of addressing deforestation and land conversion. Central banks are urged to set an example by analyzing and mitigating the risks associated with deforestation and conversion in their collateral assets, utilizing available tools and metrics. The current lack of coordinated and transparent information on these issues underscores the critical role of Central Bank and Financial Supervisors in collaborating with the relevant stakeholders to enhance data collection, monitoring, and disclosure[1].

The Banque de France started to disclose **the biodiversity impact of its equity and corporate bond portfolios.** To achieve this, the bank utilized the Corporate Biodiversity Footprint (CBF) methodology, which assesses environmental pressures from a company's value chain. The CBF quantifies biodiversity impact across four key areas: land use change, air pollution, water pollution, and climate change. The impact is aggregated into a common metric, expressed in km². MSA (Mean Species Abundance) which reflects the total loss of species diversity equivalent to converting pristine ecosystems into artificial surfaces.

[1] WWF, Deforestation And conversion: An introductory guide for central bankers. Financial regulators and supervisors, 2024

DE NEDERLANDSCHE BANK (DNB) PILOTED THE TNFD LEAP APPROACH ON PART OF ITS OWN ACCOUNT INVESTMENT PORTFOLIO

In February 2024, De Nederlandsche Bank (DNB) published an exploratory case study on nature-related financial risks in its own account investments[1]. DNB examine nature-related impacts and dependencies within two externally managed global developed markets equity portfolios: a passively managed Broad-Market Fund with an ESG screening (BMF) and an actively managed portfolio with a Paris-aligned objective (PAM). The study follows the LEAP approach from the Taskforce on Nature-related Financial Disclosures (TNFD), focusing primarily on the first three phases while omitting the 'Prepare' phase due to its exploratory nature.

For the “Locate” phase, DNB utilize the ENCORE tool to create an overview of its exposure to industries with potentially high nature-related impacts and dependencies. The allocation to industries with potentially high impacts were comparable for both funds (73% for PAM and 77% for BMF), and similar to the MSCI World Index (77%). Allocations to sectors with potentially high dependencies were slightly lower for PAM (26%) and BMF (32%) compared to the MSCI World (36%).

Whilst such an exposure analysis is useful for identifying pockets of risk in portfolios, ENCORE identifies only potential and direct nature linkages, as actual dependencies and impacts of companies within these sectors may differ substantially. Moreover, the local dimensions of nature-related risks are not taken into account. Therefore, DNB conducted a deeper, location-based assessment of its holdings in the electric utilities sub-industry, which has substantial dependencies and impacts on nature. Using the Global Power Plant Database from the World Resources Institute, DNB gather coordinates and the type of electricity generation of 1200 power plants owned by companies in their portfolios. Of these plants, roughly 80% generate renewable electricity. However, the total share of renewable electricity production is much lower (20%), as nuclear and fossil fuel plants tend to have far higher electricity production capacities per plant.

For the “Evaluate” and “Assess” phases, DNB subsequently employ the WWF Biodiversity Risk Filter (BRF) to assess each power plant’s physical and reputational risks. DNB then aggregate these risk scores to the holding company and subsequently portfolio levels. Results indicate that electric utilities in PAM face lower physical risks but slightly higher reputational risks than those in BMF.

DNB underscores that improvements in the climate dimension do not always lead to risk reduction in the nature dimension. While PAM’s energy mix has a higher share of renewables, a substantial part is generated by hydropower plants which have similar impact on nature as combustion plants. Indeed, both portfolios generate most electricity from hydropower or combustion (84% for BMF and 72% for PAM). As a result, the differences in portfolio risk scores are mainly driven by the geographical location of power plants. PAM’s power plants are generally situated in regions less susceptible to water scarcity, such as Scotland, leading to lower physical risk, but closer to protected areas, leading to higher reputational risk from possible adverse impacts on sensitive natural environments.

The findings from the LEAP assessment enhanced DNB’s understanding of potential nature-related financial risks within part of their investment portfolios. For instance, the ENCORE analysis and in-depth exploration of electric utilities can lay the groundwork for ongoing dialogues with external managers on assessing and mitigating nature-related financial risks.

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[1] De Nederlandsche Bank (DNB), Nature-related risks in our own account investments: An exploratory case study and deep dive in electric utilities, 2024

INSURANCE SUPERVISION

WHILE INSURANCE SUPERVISION HAS IMPROVED GLOBALLY IN RECENT YEARS, SOME REGIONS CONTINUE TO EXPERIENCE STAGNATION

FIGURE 21: AVERAGE FULFILLMENT OF INSURANCE SUPERVISION CRITERIA

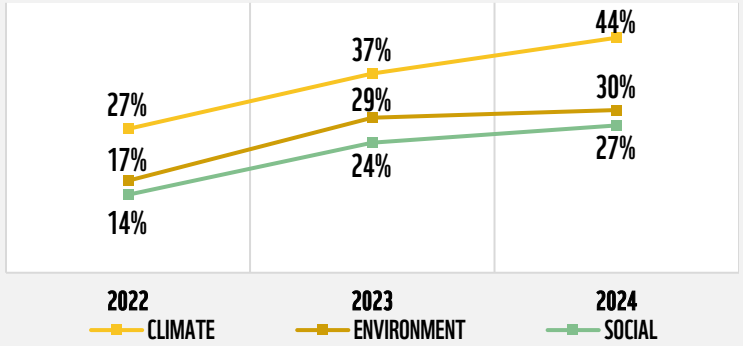
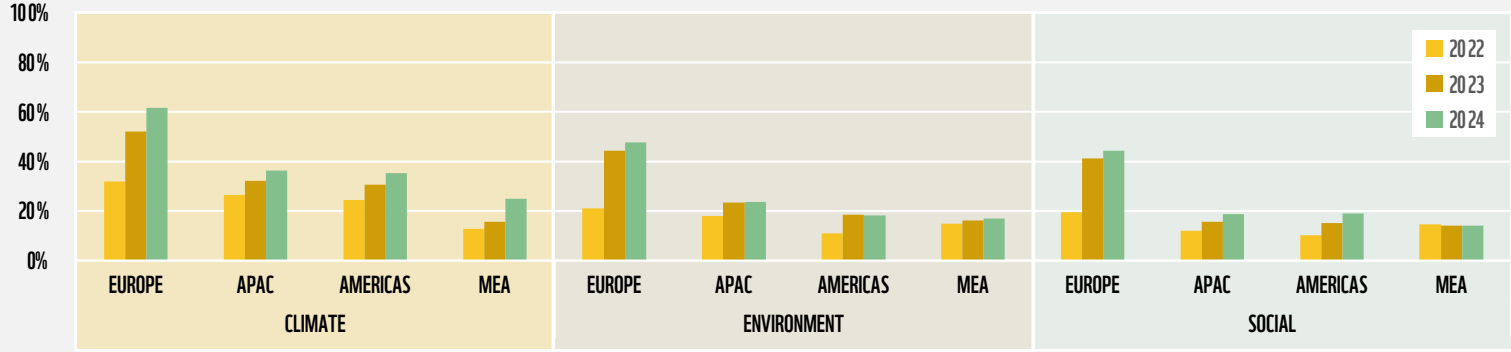


FIGURE 22: AVERAGE FULFILLMENT OF INSURANCE SUPERVISION CRITERIA PER REGION



CLIMATE

While there has been progress in the insurance supervision, it consistently lags behind banking supervision. This can be partially explained by the fact that many regulations are initially drafted with banking in mind, resulting in a lack of specific guidance tailored to the unique business operations of the insurance industry. Despite this, climate risk is increasingly being integrated into insurance supervision, with only 8 countries assessed scoring below 25%.

Europe leads in insurance supervision due to a regulatory influx including the Corporate Sustainability Reporting Directive (CSRD), which applies to all corporates and financial institutions that meet specific thresholds. Additionally, amendments to the Solvency II directive and consultations on EIOPA prudential rules have further contributed to the sector's climate and general sustainability supervision.

ENVIRONMENT

Europe and APAC have shown positive progress in integrating environmental risks to insurance supervision, while the Americas and MEA regions show stagnation, and a slight decrease compared to last year. One factor contributing to this decline is the stricter evaluation of certain indicators and the inclusion of new countries, which has lowered the overall average score.

A notable exception in the MEA region is Morocco, where the integration of environmental risks increased from merely 7% in 2023 to 30% in 2024. This improvement is largely due to the new instruction issued in January 2024 by the Supervisory Authority for Insurance and Social Welfare (ACAPS), which outline principles for managing financial risks related to the environment risks. These principles emphasize insurance companies' strategies and governance, risk management systems, and reporting for environmental risks.

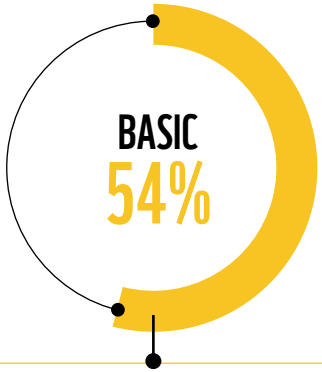
SOCIAL

Social risks continue to lag behind climate and environmental risks, though there is a positive trend in Europe, APAC, and the Americas since 2022.

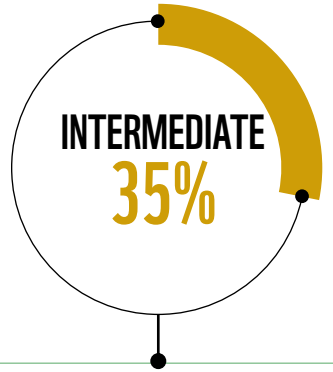
Outside the EU, insurance supervisors in countries like Brazil, Malaysia, and Indonesia have integrated social risks into their supervisory guidance. In Malaysia, for example, the Value-based Intermediation Impact Assessment Framework, that serves as a reference document outlines social risks to be considered by insurance companies. This is similar to the POJK No. 51/POJK.03/2017 issued by the Indonesia's financial service authority and SUSEP's Circular 666 SUSEP in Brazil. Social risks are broadly covered in these supervisory expectations and guidelines together with environmental risks.

OVERALL, ONLY HALF OF THE BASIC INDICATORS FOR CLIMATE AND ENVIRONMENT IN THE INSURANCE SUPERVISION ARE MET, WITH FEWER FULFILLED FOR INTERMEDIATE AND ADVANCED INDICATORS

FIGURE 23: SUSREG INSURANCE SUPERVISION INDICATORS PROGRESS FOR CLIMATE & ENVIRONMENT ACROSS THREE DISTINCT CATEGORIES



- Regulations or supervisory expectations are in place
- Coverage of C&E issues
- Supervisory monitoring
- Governance & strategy
- Integration in policies & processes
- Portfolio risk management
- NGFS membership for supervisors
- Data quality initiative by supervisor
- National multi-stakeholder initiatives



- Double materiality
- Stakeholder engagement
- Active client engagement
- Data & IT infrastructure by the banks
- Integration into ORSA
- Disclosure in annual report and Internationally recognised reporting frameworks
- Scenario analysis & stress test by supervisor
- Supervisor's C&E strategy
- Supervisor's study on insurance's exposure to C&E risks
- Engagement with re-insurers

- Sector policies
- Integration of nature related risks
- Transition plan
- Climate and nature target setting
- Scenario analysis & stress testing by insurance companies
- Risk concentration management
- Pricing
- Solvency capital requirement
- Product development
- Greenwashing risk
- Obligatory insurance mandate
- Systemic risk buffer capital

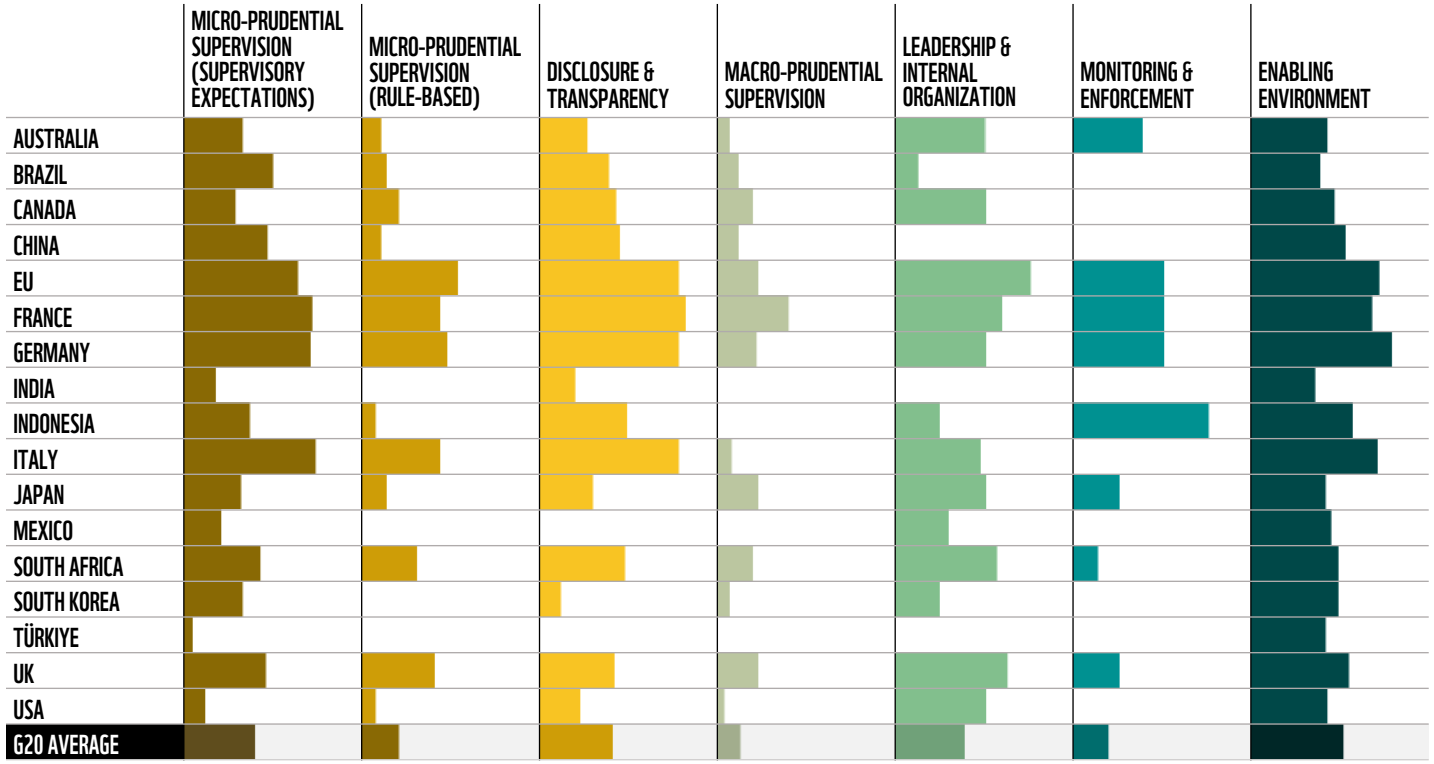
Note: The number displayed on the graph represents the average fulfillment of indicators for the climate and environmental assessment. In cases where an indicator is divided between climate and environment and/or between investment and underwriting, the results were given equal weight. Partially met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

- On average, 54% of the basic indicators are fulfilled, showing that most countries have taken initial steps such as establishing regulations or supervisory expectations, ensuring coverage of climate and environmental (C&E) issues, and integrating C&E risks into governance and strategy, alongside early measures for portfolio risk management.
- However, with only 35% of Intermediate indicators fulfilled on average, this underscores the challenges insurance regulators face in progressing from basic compliance to more comprehensive risk management expectations, such as the integration of C&E risks into the Own Risk and Solvency Assessment (ORSA).
- The average fulfilment of advanced indicators remains quite low, at just 24%. The significant gap between basic and advanced indicators highlights that many jurisdictions need to take more concrete steps to embed these risks into their long-term strategic planning and regulatory frameworks. This also underscores the importance of moving beyond foundational efforts and addressing more complex aspects of risk integration.

In its Green Finance Report 2023, **the Hungarian National Bank (MNB)** highlighted that insurers are increasingly required to integrate sustainability considerations into their processes. Notably**, starting in spring 2023, insurers' Own Risk and Solvency Assessments (ORSAs) must address climate change-related environmental risks that are relevant to the insurer.**

THE MAJORITY OF G20 COUNTRIES SHOW LESS THAN 50% FULFILMENT OF SUSREG CLIMATE AND ENVIRONMENTAL INDICATORS ON INSURANCE PRUDENTIAL SUPERVISION

FIGURE 24: INDICATORS FULFILMENT PER CATEGORY IN G20 COUNTRIES*



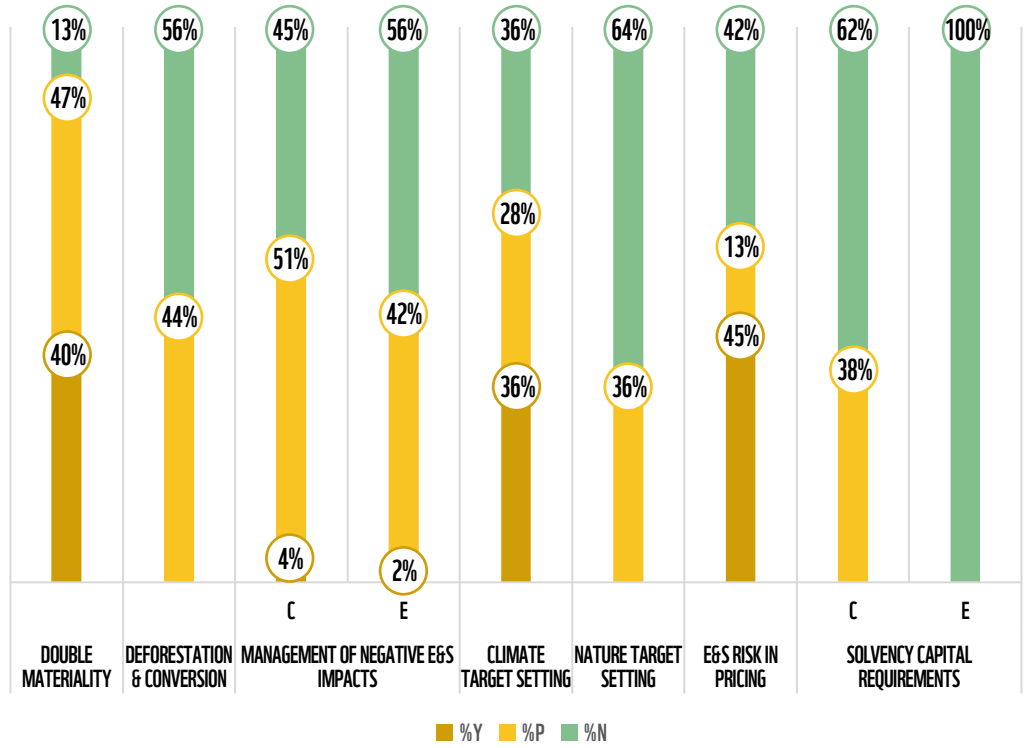
Note: The number displayed in the table represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment and/or between investment and underwriting, the results were given equal weight. Partially 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.*

- The graph illustrates a diverse range of progress in insurance supervision across G20 countries, with several regions showing strong developments in certain areas. European countries, particularly the EU, Germany, and Italy, have made notable advancements, setting a more solid foundation for regulatory frameworks.
- Micro-prudential supervision and disclosure requirements are the areas where most G20 countries have made the most progress. However, some countries, including India, Mexico, and Turkiye, are notably lagging behind. Interestingly, in these countries, banking supervision related to climate and environmental risks is stronger than in the insurance sector.
- Indonesia stands out for having a relatively stronger mechanism to monitor implementation, particularly through clear intervention actions for non-compliance with its sustainable finance regulations (POJK). This includes issuing formal warning letters for non-compliance. While other countries may take similar actions, such policies are not always publicly disclosed, making Indonesia's approach more visible.
- The enabling environment reflects broader factors that support effective insurance supervision. Germany, the EU, and France demonstrate the strongest enabling environments influencing the wider economy, which are essential in driving the financial sector's transition.

The **European Insurance and Occupational Pensions Authority (EIOPA) in its Solvency II directive amendment** will review at least every three years, with respect to natural catastrophe risk, the scope and the **calibration of the standard parameters of the non-life catastrophe sub-module of the Solvency Capital Requirement**. For the purpose of those reviews, EIOPA will take into account the **latest available relevant evidence on climate science and the relevance of risks in terms of the risks underwritten** by insurance and reinsurance companies that use the standard formula for the calculation of the non-life catastrophe sub-module of the Solvency Capital Requirement.

MOST INSURANCE REGULATORY FRAMEWORKS LACK CRITICAL ELEMENTS, INCLUDING INTEGRATING NATURE-RELATED RISK DRIVERS, TARGET SETTING, AND SOLVENCY CAPITAL REQUIREMENT

FIGURE 25: AVERAGE ACHIEVEMENT OF 45 COUNTRIES ON SELECT INDICATORS OF INSURANCE SUPERVISION



Note: The numbers displayed in the graph represent the percentage of countries in the SUSREG scope that do not meet (N), partially meet (P), and fully meet (Y) the SUSREG criteria on the respective indicators.

DOUBLE MATERIALITY ASSESSMENT

Most countries consider a single materiality, with 47% partially fulfilling this indicator. While 40% requires double materiality, including impact materiality, particularly in their disclosure requirements. This suggests that many countries still focus primarily on an inward-looking perspective of financial materiality.

However, among those that fulfil the double materiality indicator, a greater proportion are EU countries. This is largely due to the introduction of the double-materiality principle through the Corporate Sustainability Reporting Directive (CSRD), which impacts the majority of financial institutions in the region.

DEFORESTATION & CONVERSTION

Most supervisors in the countries covered have only partially addressed this indicator, generally recognizing deforestation and habitat conversion as part of environmental risks. However, there is little detail on how to effectively integrate these issues into decision-making, risk management processes, or policies, and no explicit requirement for minimum standards. In Malaysia, these issues are addressed, among others, through the Value-based Intermediation Financing and Investment Impact Assessment Framework (VBIAF) and the sectoral guidance which serve as a reference document for financial institutions in managing environmental and social risks of their clients in high-risk sectors.

The Swiss Financial Market Supervisory Authority (FINMA) initiated a consultation on a new circular that outlines its supervisory practices for managing nature-related financial risks. Targeted at banks and insurers, the circular, specifies how these risks should be integrated into corporate governance and institution-wide risk management. The initial draft has highlighted the importance of addressing nature-related financial risks such as climate change, the impairment of air, water, and soil quality, deforestation, and the spread of invasive species.

MANAGEMENT OF NEGATIVE IMPACTS

More than half (55%) of the assessed supervisors expect insurers to assess and manage the material negative climate impacts at the portfolio level, although in majority of them, these expectations are not mandatory. France and Singapore are the only countries that have some detailed expectations on this. In France, entities engaged in investment activities are required to publish a strategy aligning with the long-term objectives of Articles 2 and 4 of the Paris Agreement, specifically on the mitigation of greenhouse gas emissions.

In Singapore, insurance companies are required to evaluate customers that do not adequately manage their environmental risks. Insurers are encouraged to consider a range of mitigating actions, such as reflecting the additional risk in insurance premiums, applying limits on underwriting exposure, etc.

CLIMATE & NATURE TARGET SETTING

In 36% of the countries assessed, including Canada, Singapore, South Korea, and the EU, insurers are required to establish climate targets. In several jurisdictions, supervisors partially enforce this requirement, where insurers are encouraged to set internal targets, though these may not necessarily align with global goals like the Paris Agreement or the Global Biodiversity Framework (GBF).

Notably, 36% of countries have no expectations for climate target-setting, and 66% lack requirements for setting target beyond climate. There is a clear need for the regulators to set biodiversity targets that provide clarity and stability for financial markets and replacing investment in environmentally harmful activities with cornerstone investment in nature-positive activities.

E&S IN RISK PRICING

Integrating environmental and social (E&S) risks into insurance pricing is essential to ensure insurers remain financially resilient as risks evolve. With 58% of supervisors now expecting insurers to reflect E&S risks in their pricing, there is growing recognition that premiums must accurately capture the potential monetary losses associated with these risks.

By factoring climate and nature risks into insurance premiums, insurers help reduce systemic risks in the financial sector. When insurers fail to incorporate E&S risks into their pricing models, it can result in the under-pricing of these risks which can lead to unexpected losses, threatening the solvency of insurers and causing ripple effects throughout the economy.

SOLVENCY CAPITAL REQUIREMENTS

Solvency capital requirements play a critical role in insurance regulation, ensuring that insurers have the financial capacity to meet their obligations to policyholders. The integration of sustainability risks into these requirements enhances financial stability by addressing emerging threats like climate change and environmental degradation.

Despite the importance of solvency capital requirements in financial regulation, the integration of climate and environmental risks into solvency frameworks are still quite minimal.

However, with the forthcoming implementation of EIOPA's paper on the prudential treatment of sustainability risks, this measure might be implemented by the Eurosystem members in the coming years.

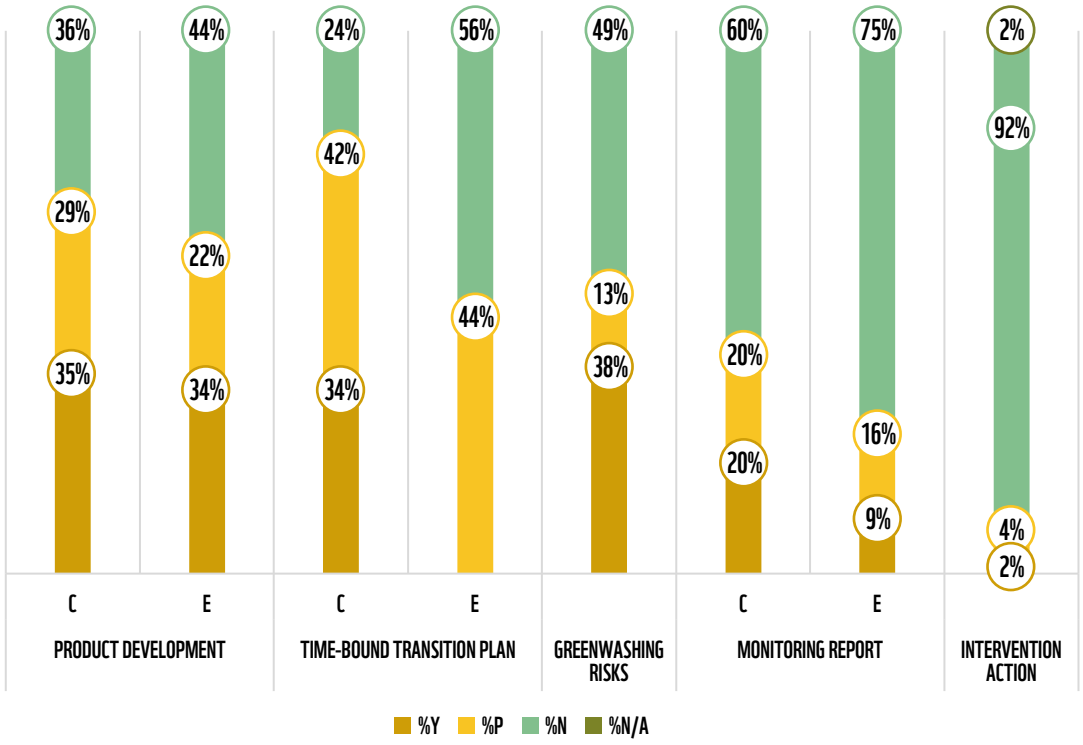
In 2022, the **California Department of Insurance implemented regulations requiring insurers to incorporate specified wildfire mitigation factors into their rating plans when determining premiums,** as outlined in the California Code of Regulations. These plans must consider both community-level and property-level mitigation efforts, ensuring that reduced wildfire risks are accurately reflected in policy rates. Additionally, insurers are required to provide policyholders and applicants with their wildfire risk scores or classifications in writing, along with information on specific mitigation measures that can lower these scores and the corresponding premium reductions available.

In the Revised Climate Risk Management Guidelines issued by the Financial Supervisory Service (FSS) in **Korea**, **Directors and Executive Officers are required to ensure that the financial company's activities align with international standards, such as the Paris Agreement, as well as the government's climate risk management targets**. The guidelines also mandate financial institutions to assess whether their portfolio's climate risk-related activities meet the standards set by these international benchmarks.

Under **the Principles for the Effective Management of Climate-Related Financial Risks issued by the UAE Sustainable Finance Working Group, insurers are mandated to develop processes to evaluate the impact of climate-related financial risks on liquidity, capital, and solvency within specified time horizons.**

INSURANCE SUPERVISORS ARE INCREASINGLY INCORPORATING SUSTAINABILITY REQUIREMENTS INTO PRODUCT DEVELOPMENT AND MANDATING TRANSITION PLANS DISCLOSURE

FIGURE 26: AVERAGE ACHIEVEMENT OF 45 COUNTRIES ON SELECT INDICATORS OF INSURANCE SUPERVISION



Note: The numbers displayed in the graph represent the percentage of countries in the SUSREG scope that do not meet (N), partially meet (P), and fully meet (Y) the SUSREG criteria on the respective indicators.

PRODUCT DEVELOPMENT

Supervisors in the EU, Brazil, and China have set expectations for insurers to integrate environment and climate considerations when developing and distributing new products as part of product approval process.

However, 22 and 29% of the other countries have a less rigorous approach for nature and climate respectively. In these countries, expectations to integrate environmental and climate considerations are either weaker or absent from the product approval process altogether. This lack of regulatory focus presents a potential risk, as insurers may fail to sufficiently account for climate-related risks in their offerings. In the remaining countries, no specific requirements exist for insurers to integrate environmental or climate factors into their product development processes.

TRANSITION PLAN BY INSURERS

Transition plans are a crucial risk management tool that enable financial institutions to effectively plan and strategize their transition toward net-zero carbon emissions and nature-positive outcomes. In this regard, all EU countries (for insurance in scope of CSRD), along with Switzerland and Canada, have issued expectations for insurers to publicly disclose their climate transition plans.

France extends this by requiring nature-related transition plans for investment activities. Under this mandate, credit entities—including insurance companies—must develop and disclose a strategy that aligns with long-term biodiversity objectives. This strategy must outline the scope of the value chain involved and include clearly defined goals for 2030, with mandatory updates every five years.

In 2022, **China published technical support for the 14th Five-Year Plan to establish a robust insurance industry framework**, focusing on advancing green insurance and supporting carbon neutrality goals. The plan includes efforts to **foster innovation in green insurance products, enhance research and service standards in areas such as new energy, low-carbon technology, and biodiversity conservation.** Additionally, there is an emphasis on aligning various environmental standards and establishing metrics for green insurance, fund utilization, and business evaluation, all aimed at strengthening China's green financial standards.

GREENWASHING RISKS

Greenwashing is a complex and multifaceted issue that can occur at various stages of the insurance process, from product marketing, manufacturing, the delivery and management of insurance policies, to disclosure. Supervision to mitigate the risks of greenwashing and mislabeling of “green” insurance products is gaining traction, with 51% of the assessed countries having this expectation in place.

In the UK, for example, the FCA's policy statement PS23/16 on Sustainability Disclosure Requirements (SDR) seeks to tackle greenwashing by introducing an explicit anti-greenwashing rule, which came into effect in 2024. Firms must comply with this rule, along with other existing requirements, to ensure that any marketing and communication about their products are fair, clear, and not misleading. As a result, some insurance-based investment products are expected to adjust their offerings to meet sustainability criteria, while others may choose to operate without using the green label.

MONITORING REPORT

Regulations and supervision on tackling climate and nature risks are crucial to ensure a long-term sustainability of insurance sector. However, real progress depends on the effective implementation of these regulations, making it crucial that policies are both monitored and enforced. Despite this, only 40% of supervisors have issued reports on how their climate-related supervisory expectations are being implemented by insurance companies, and just 25% have done so for nature-related expectations.

By tracking the implementation of climate and nature regulations, regulators can identify where progress is being made and where improvements are needed. Ongoing monitoring also provides valuable data and insights into the effectiveness of current regulations. This information helps regulators adjust policies as needed to improve their impact, ensuring that the regulatory framework remains relevant and robust in the face of evolving climate and nature challenges.

INTERVENTION ACTION

Although many supervisors have published reports outlining the extent to which insurance companies are integrating sustainability practices and meeting supervisory expectations, very few have clearly defined their enforcement policies. This includes specifying the actions that will be taken against companies that fail to comply or meet targeted deadlines. Austria, Indonesia, and Thailand stand out as some of the few countries that have explicitly mentioned enforcement measures in their regulation and supervisory guidance.

Intervention actions hold financial institutions accountable and demonstrate that failing to meet climate and nature regulations will have tangible repercussions, ensuring that the insurance companies take their responsibilities seriously. Consistent enforcement of regulations through penalties and interventions shows that governments and regulatory bodies are serious about their environmental commitments. This gives confidence to investors, consumers, and the public that the transition to a sustainable economy is being actively pursued.

The Financial Supervisory Commission (FSC) of Taiwan has issued Green Prevention Reference Guidelines to combat "greenwashing," where financial institutions might falsely present their products or services as "green" or "sustainable." The guidelines outline five mandatory principles for companies that release sustainability-related statements to the public, including through publicity, advertising, or any other form of communication.

The Australian Prudential Regulation Authority (APRA) has published findings from its voluntary climate risk self-assessment survey across the banking, insurance, and superannuation industries. This survey assesses how well APRA-regulated entities align with the expectations of Prudential Practice Guide CPG 229, which provides guidance on managing financial risks and opportunities related to climate change.

Indonesia's POJK No. 51/POJK.03/2017 outlines requirements for financial institutions including insurance companies to integrate sustainability principles into their financial practices. Non-compliance may result in administrative sanctions, including written reprimands or warnings.

HOW ENVIRONMENTAL POLLUTION LIABILITY INSURANCE BOOSTS CORPORATE GREEN INNOVATION IN CHINA

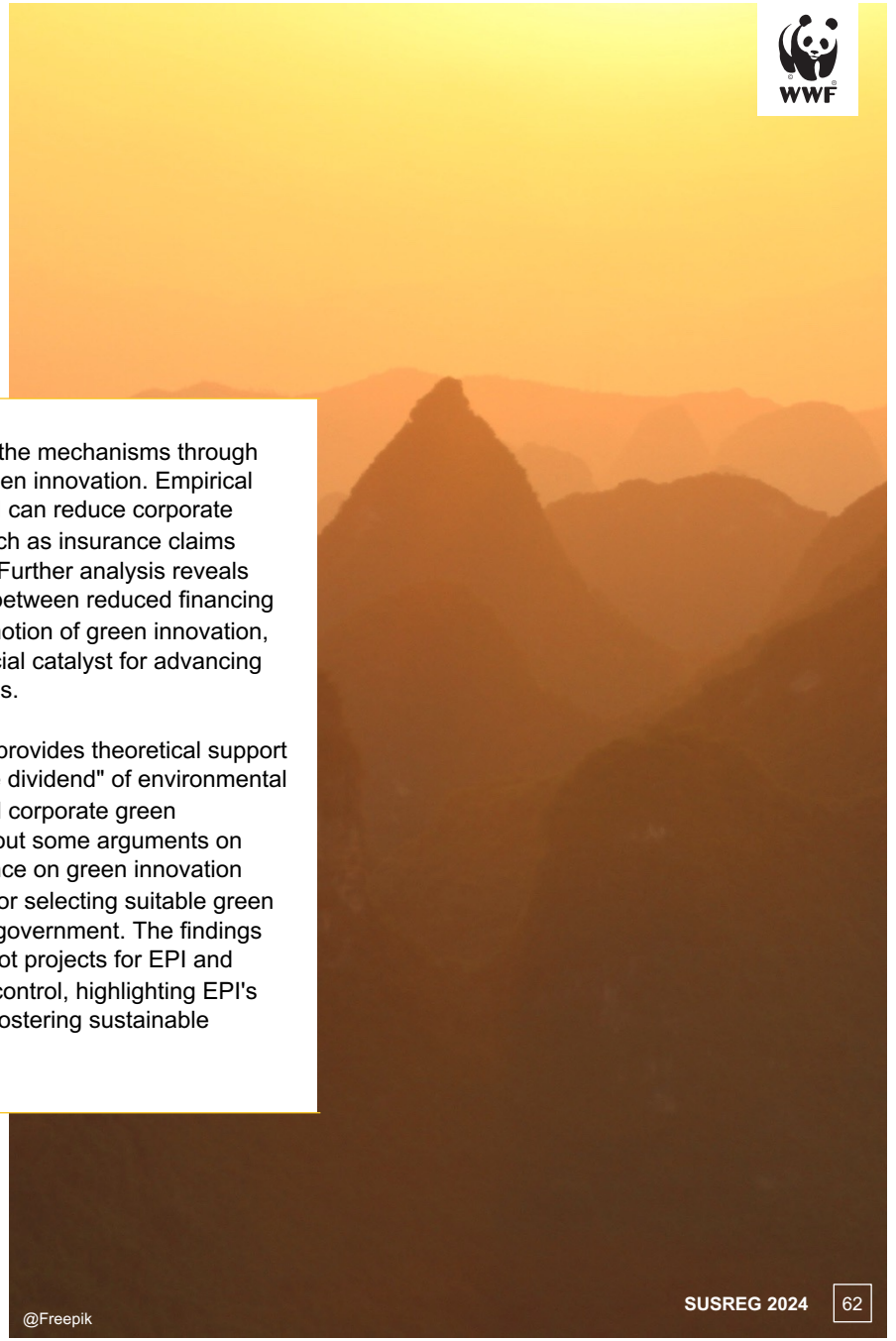
A recent study examines the impact of Environmental Protection Insurance (EPI) on the green transformation of enterprises in China[1]. The research aims to determine if EPI can serve as a catalyst for green innovation and improve environmental practices among businesses, especially those in heavily polluting industries. By analyzing data from Shanghai and Shenzhen A-share listed companies, the study assesses the relationship between EPI adoption and green innovation activities.

EPI is a type of liability insurance designed to cover costs associated with damage compensation and remediation responsibilities incurred due to environmental pollution. Under an EPI policy, the insurer compensates affected parties and manages cleanup and treatment processes. Environmental pollution represents a market failure caused by externalities—unintended negative impacts on the environment not accounted for in production or consumption costs. EPI addresses this market failure by providing a mechanism for managing the risks and financial burdens of environmental damage.

The study identifies several factors influencing the effectiveness of EPI in promoting green innovation through a heterogeneity analysis. Compared to state-owned enterprises, non-heavy polluting companies, and firms in non-patent-intensive industries[2], EPI plays a more significant role in promoting green innovation among non-state-owned enterprises, heavily polluting companies, and those in patent-intensive industries. State-owned enterprises often have multiple political goals, lack awareness of competition risks, and have imperfect incentive mechanisms for their executives. Conversely, non-state-owned companies may be more proactive in applying for green patents. Additionally, heavily polluting companies face greater pressure regarding production and operational costs due to the lack of green innovative technologies.

The study also explores the mechanisms through which EPI influences green innovation. Empirical testing indicates that EPI can reduce corporate financing constraints, such as insurance claims and litigation payments. Further analysis reveals a significant correlation between reduced financing constraints and the promotion of green innovation, positioning EPI as a crucial catalyst for advancing corporate green initiatives.

In conclusion, the study provides theoretical support for achieving the "double dividend" of environmental protection and enhanced corporate green competitiveness. It lays out some arguments on the impact of green finance on green innovation and offers a foundation for selecting suitable green financial policies for the government. The findings support implementing pilot projects for EPI and environmental pollution control, highlighting EPI's practical implications in fostering sustainable development.



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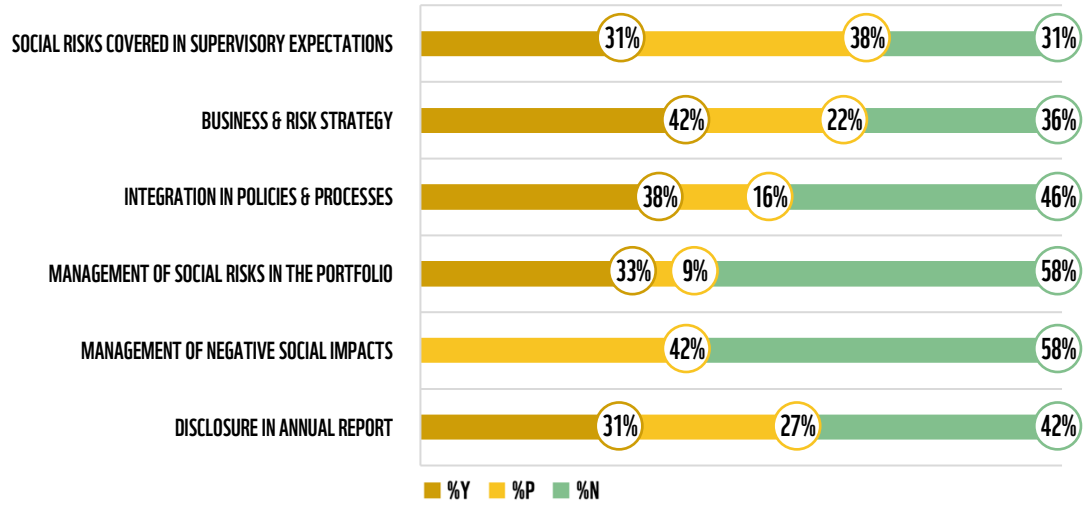
[1] Wang et al., Does environmental pollution liability insurance affect corporate green innovation? New evidence from China, 2023.
[2] The term "patent-intensive industry" refers to a collection of industries with the density and scale of invention patents reaching the prescribed standards, relying on intellectual property rights to participate in market competition and conforming to the guidance of innovation and development.

ALTHOUGH SOCIAL RISKS ARE ACKNOWLEDGED IN INSURANCE REGULATIONS, THEY RECEIVE INSUFFICIENT ATTENTION, WITH LIMITED DETAIL ON THEIR IMPLEMENTATION

- The insurance sector holds significant potential to drive positive change across a broad spectrum of social issues, including labor rights, community development, indigenous rights, and human rights. By leveraging their strategic underwriting policies and investment decisions, insurers can either reinforce or challenge unethical practices. For instance, insurers can exert influence by refusing to underwrite or invest in companies known for worker exploitation or human rights abuses, thereby encouraging better labor practices and fair treatment across industries.
- Moreover, innovative insurance products like parametric insurance can offer critical financial security to marginalized communities, including protection against the increasing risks of climate-related hazards.
- While there has been progress in incorporating social risks into disclosure requirements, particularly by certain insurance supervisors, the broader integration of social considerations within the sector remains insufficient. This shortfall is especially evident in areas such as the management of negative social impacts and comprehensive portfolio risk management, where social issues are often treated as secondary concerns.
- Among the key challenge for insurers in assessing social risks is the lack of standardized metrics and reliable data. Unlike financial or environmental risks, social risks do not have universally accepted evaluation frameworks, leading to inconsistent assessments. Additionally, the data needed to evaluate these risks—such as information on labor practices or community impacts—is often scarce or unreliable, further complicating the assessment process.

FIGURE 27: AVERAGE ACHIEVEMENT OF 45 COUNTRIES ON SELECT SOCIAL-RELATED INSURANCE SUPERVISION INDICATORS

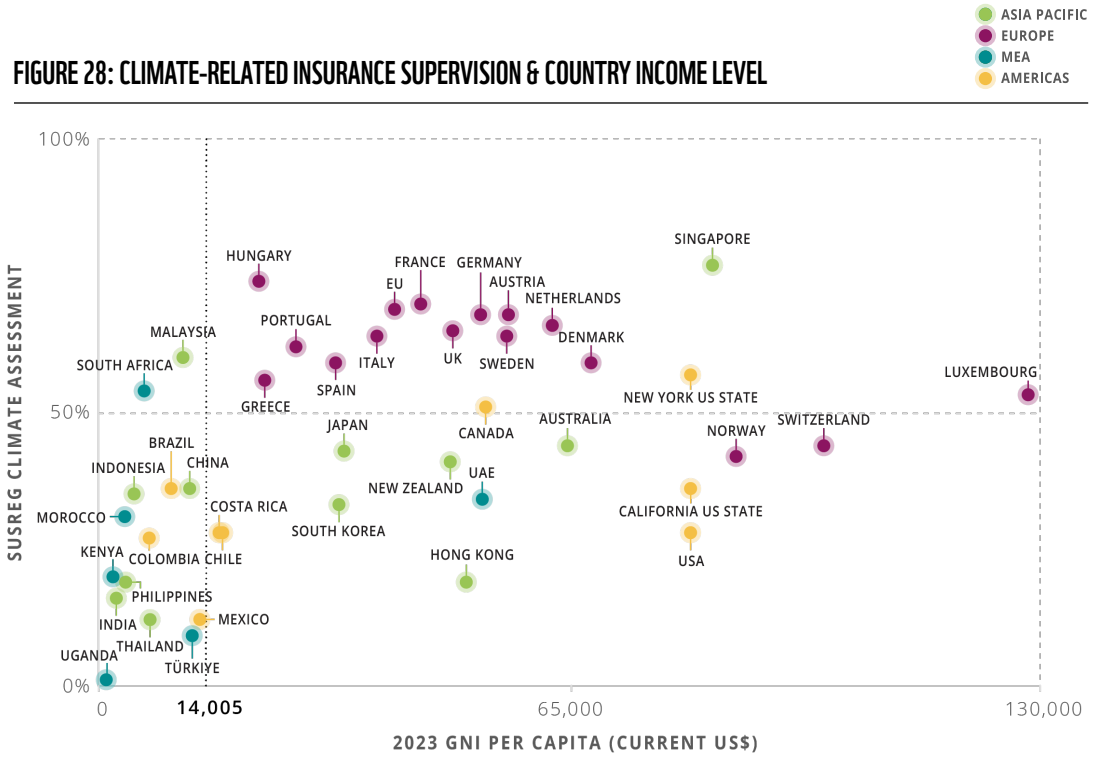


Note: The numbers displayed in the graph represent the percentage of countries in the SUSREG scope that do not meet (N), partially meet (P), and fully meet (Y) the SUSREG criteria on the respective indicators.

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.

11 OF 27 HIGH-INCOME COUNTRIES ALIGN WITH LESS THAN 50% OF SUSREG CLIMATE INSURANCE SUPERVISION CRITERIA, ALIGNMENT ON NATURE IS EVEN LOWER

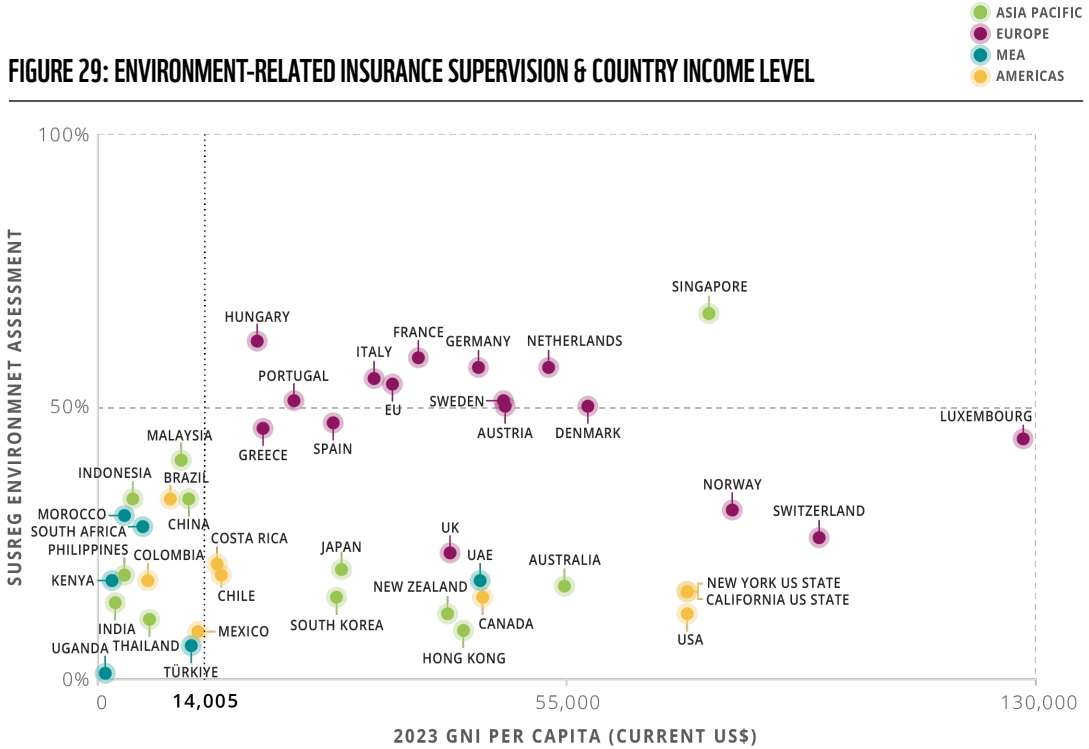
FIGURE 28: CLIMATE-RELATED INSURANCE SUPERVISION & COUNTRY INCOME LEVEL



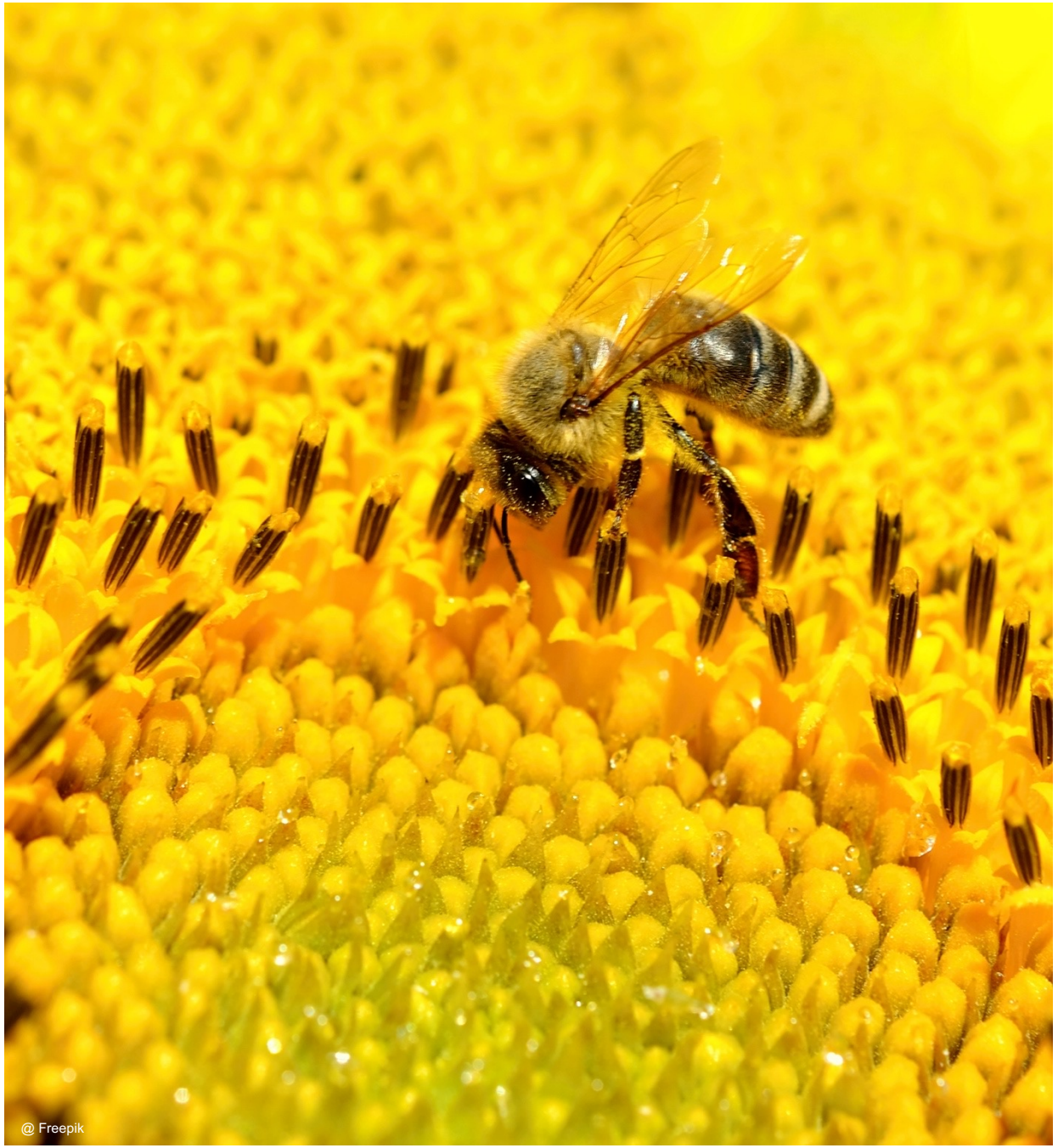
Source of GNI per capita: The World Bank, 2024.
Note: GNI per capita (formerly GNP per capita) refers to the gross national income converted to U.S. dollars, divided by the mid-year population. For the 2025 fiscal year, the World Bank classifies high-income countries as those with a GNI per capita of $14,005 or more since July 2024. This graph incorporates data from the SUSREG environmental assessment, with California and New York attributed the same GNI per capita as the overall USA.

- Some of the highest-income countries have continued to lag in their climate and environmental risk insurance supervision. Three out of the five countries with the highest income have SUSREG scores below 50% for both climate (Figure 28) and environment-related (Figure 29) assessments. On average, supervision of environment-related risks is particularly weak.
- Singapore stands out as a leader in climate and broader environmental insurance supervision. Under the direction of the Monetary Authority of Singapore (MAS), the country has introduced comprehensive guidelines for insurers, including a proposed transition plan for climate-related disclosures, the Guidelines on Environmental Risk Management (ERM), and a supplementary information paper for ERM.
- Climate-related insurance supervision in New York is notably more rigorous compared to the broader United States, largely due to specific guidance from the New York Department of Financial Services (DFS) for the insurance sector.
- Meanwhile, in non-high-income countries, Malaysia and South Africa have made significant and commendable progress, achieving more than 50% alignment with climate insurance supervision SUSREG indicators. The South African Reserve Bank (SARB) has issued two sets of guidelines focusing on climate-related governance, risk practices, and risk disclosure for insurers. Malaysia, on the other hand, has developed comprehensive guidance for identifying, assessing, and managing climate-related risks within the insurance industry, with a strong emphasis on scenario analysis to understand the potential impacts of climate change on financial institutions.

FIGURE 29: ENVIRONMENT-RELATED INSURANCE SUPERVISION & COUNTRY INCOME LEVEL

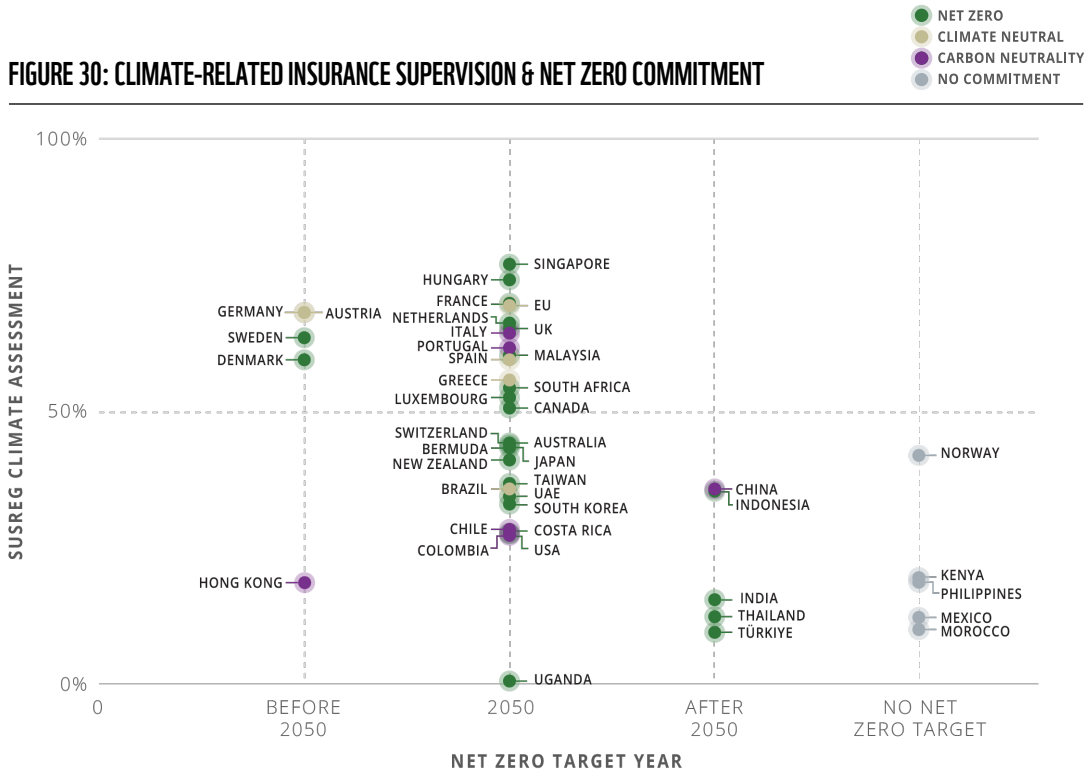


Source of GNI per capita: The World Bank, 2024.
Note: GNI per capita (formerly GNP per capita) refers to the gross national income converted to U.S. dollars, divided by the mid-year population. For the 2025 fiscal year, the World Bank classifies high-income countries as those with a GNI per capita of $14,005 or more since July 2024. This graph incorporates data from the SUSREG environmental assessment, with California and New York attributed the same GNI per capita as the overall USA.



HALF OF COUNTRIES WITH NET ZERO TARGETS HAVE WEAK INSURANCE SUPERVISION, ALIGNING LESS THAN 50% WITH SUSREG CLIMATE CRITERIA

FIGURE 30: CLIMATE-RELATED INSURANCE SUPERVISION & NET ZERO COMMITMENT



Source of countries' net zero target: Net Zero Tracker (2024) and internal verification conducted by the authors.
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.

- A 2023 report highlights the significant exposure of the U.S. insurance sector to fossil fuel assets, revealing that the industry held approximately $536 billion in such investments as of 2019[1]. This continued reliance on carbon-intensive sectors conflicts with the industry's growing need to align with Net Zero targets and mitigate climate-related financial risks.

- Reports from the European Insurance and Occupational Pensions Authority (EIOPA) and the European Central Bank (ECB) further highlight the considerable transition and physical climate risks faced by the insurance and pension sectors[2]. Notably, insurers in the European Economic Area (EEA) could suffer equity losses of over 25% in carbon-intensive sectors during a disorderly transition to a low-carbon economy. Although reinsurance can help mitigate some of these risks, the evolving nature of climate-related hazards could still lead to substantial future impacts, including higher premiums and reduced coverage for policyholders.

- Despite the pressing need for action, there is a significant gap in climate-related insurance supervision. According to the SUSREG framework, 20 out of 38 countries with a Net Zero target lack a comprehensive climate-related insurance supervision (less than 50% alignment with SUSREG climate criteria). This figure has shown little improvement from the previous year, indicating a stagnation in the development of the necessary regulatory infrastructure.

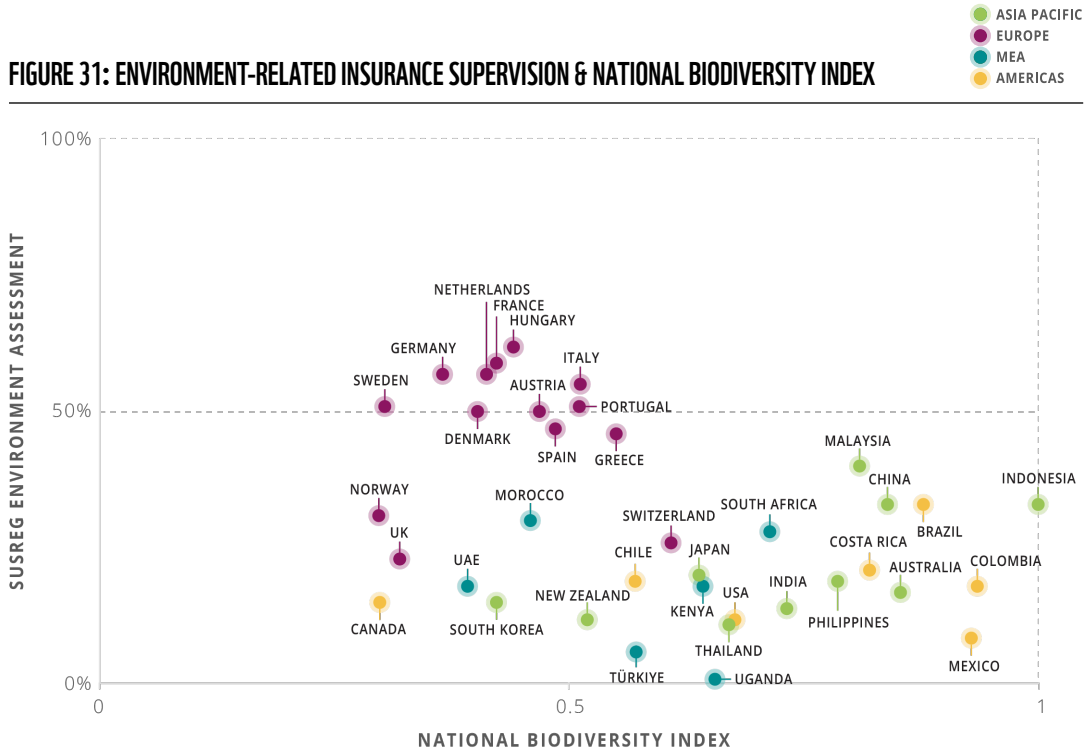
- The Bank for International Settlements (BIS) has recently emphasized that insurers play a crucial role in supporting climate risk mitigation and the transition to Net Zero[3]. By adopting strategic pricing and underwriting policies, insurers can influence market behavior and promote sustainability.

In its **Guidelines on Environmental Risk Management for Insurers, the Monetary Authority of Singapore (MAS)** requires insurers to establish **an enterprise risk management (ERM) framework** that includes the identification and quantification of relevant and material risks, including environmental risks. The guidelines also highlight that **major trigger events, such as catastrophes** or incidents that adversely affect the insurer's reputation, can lead to a high level of claims, collateral calls, or policy terminations, potentially resulting in serious liquidity issues. **Insurers are therefore required to outline in their policies and procedures the options for responding to such trigger events.**

[1] Ceres, The Changing Climate for the Insurance Industry, 2023.
[2] European Central Banking (ECB), Policy options to reduce the climate insurance protection gap, 2023.
[3] Bank for International Settlements (BIS), Too hot to insure – avoiding the insurability tipping point, published in Financial Stability Institute (FSI) Insights on policy implementation No. 54, 2023.

THE TOP 10 BIODIVERSITY HOTSPOT NATIONS LAG BEHIND IN INSURANCE SUPERVISION FOR NATURE RELATED RISKS

FIGURE 31: ENVIRONMENT-RELATED INSURANCE SUPERVISION & NATIONAL 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.

- As ecosystems continue to degrade, insurers face mounting financial risks, particularly through their underwriting and investment portfolios in countries rich in natural resources and biodiversity. The degradation of these ecosystems not only heightens the likelihood of natural disasters but also threatens the sustainability of industries dependent on natural resources, thereby increasing the risk of significant financial losses for insurers.
- Although UK financial supervision has primarily focused on climate risks, often with limited alignment to broader environmental criteria outlined in SUSREG, recent progress is evident in the 2023 Green Finance Strategy. The UK Government emphasized that achieving net zero is impossible without protecting and restoring nature. As part of the landmark Kunming-Montreal Global Biodiversity Framework, agreed upon at the Convention on Biological Diversity COP 15, the UK committed to international goals and targets to put nature on a path to recovery by 2030. In line with this, the UK has committed to ensure that large and transnational companies, as well as financial institutions, regularly monitor and disclose their risks, dependencies, and impacts on nature.
- However, the situation remains dire in regions like Latin America and Asia-Pacific, where high biodiversity is paired with underdeveloped insurance supervision on nature related risks. In these regions, the alignment with SUSREG environmental criteria remains low, with fulfillment rates below 50%. This gap between high biodiversity and low supervision on nature risks represents a significant risk for insurers operating in these jurisdictions in the long run.

In France, **credit institutions, including insurers, are required to disclose how their strategies align with long-term biodiversity goals[1].** This includes assessing compliance with the Convention on Biological Diversity (CBD) targets, analysing contributions to reducing key pressures on biodiversity as defined by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and utilizing a biodiversity footprint indicator.

The enforcement of these regulations has led to progress[2]—**according to the French Prudential Supervision and Resolution Authority (ACPR), only 21 out of 113 insurers (19%) failed to address biodiversity in their 2023 reports**, indicating a broad adoption of these regulatory requirements.

[1] As regulated in Decree no. 2021-663 of 27 May 2021 implementing Article L.533-22-1 of the Monetary and Financial Code, 2021.
[2] Autorité de contrôle prudentiel et de resolution (ACPR) of Banque de France, French insurers facing the risks associated with biodiversity loss: Challenges and lessons learned for the insurance industry and supervisors, 2024

ENABLING ENVIRONMENT

A STRONG ENABLING ENVIRONMENT IS EQUALLY VITAL IN DRIVING THE TRANSFORMATION OF FINANCIAL SYSTEMS AND THE WIDER ECONOMY

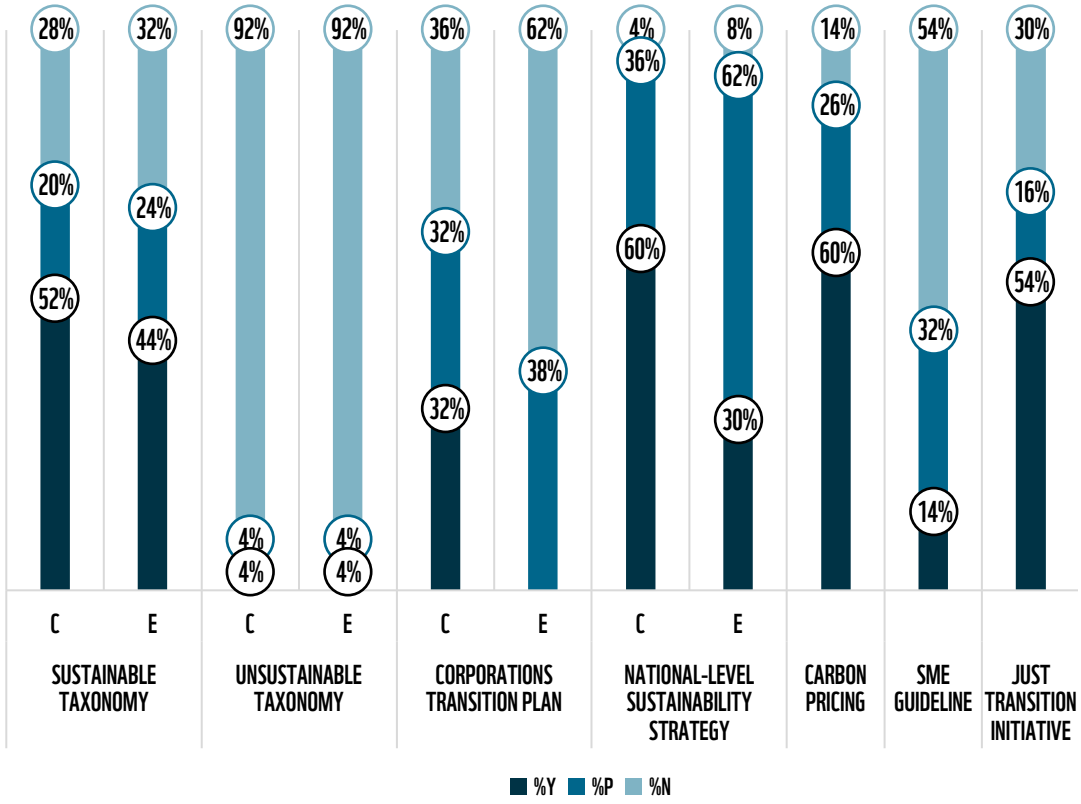
The successful transition to a low-carbon, resilient, and sustainable economy hinges on both effective financial regulation and a supportive enabling environment. While some measures extend beyond the traditional mandates of central banks and financial supervisors, they remain the cornerstone of the transition in the real economy. The SUSREG framework includes enabling environment indicators to highlight the broader factors supporting sustainable finance within a country.

A robust national strategy, for example, provides direction, coherence, and synergy, ensuring that all sectors, from large corporations to SMEs, align with the overarching goals of decarbonization and nature restoration. Multi-stakeholder initiatives focused on sustainable finance also play a crucial role in overcoming barriers, building capacity within financial institutions, and strengthening the initiative by regulatory bodies.

Other essential tools include taxonomies—classification systems for sustainable and unsustainable activities—alongside mandatory sustainability disclosure requirements for both financial and non-financial entities. These measures are vital for mitigating greenwashing and ensuring that financial flows are aligned with predefined sustainable development goals. Additionally, implementing a carbon pricing mechanism, such as a carbon tax, is critical for achieving substantial reductions in greenhouse gas emissions within the real economy.

Finally, incorporating SMEs and just transition initiatives into climate and environmental efforts is equally important, as it ensures that sustainability objectives are pursued inclusively and fairly. This approach not only aligns financial flows with global goals but also fosters a resilient and equitable economy. Without these components, financial regulation and broader economic shifts may fall short of delivering the desired outcomes, risking the exclusion of vulnerable segments of society.

FIGURE 32: AVERAGE ACHIEVEMENT OF 50 COUNTRIES ON SELECT INDICATORS OF ENABLING ENVIRONMENT



Note: The numbers displayed in the graph represent the percentage of countries in the SUSREG scope that do not meet (N), partially meet (P), and fully meet (Y) the SUSREG criteria on the respective indicators.

SUSTAINABLE TAXONOMY

The development of a sustainable taxonomy is a critical component of national policies aimed at accurately assessing the environmental sustainability of economic activities. A well-structured taxonomy provides a clear framework for the relevant stakeholders to make informed decisions, especially when it is developed through a science-based, multi-stakeholder process. By offering clear criteria for what constitutes sustainable economic activities, such taxonomies help to standardize the definition, reduce greenwashing risks.

Currently, 26 of the assessed countries have implemented a sustainable taxonomy. In addition, four other countries, including Australia, Brazil, Costa Rica, and Kenya, have already published the taxonomy drafts in the past year. Several other countries including Canada, Chile, India, Türkiye, the UAE, and the UK, are either in the preparation phase or have publicly stated their intention to develop a sustainable taxonomy.

However, in the remaining 12 countries, there is no existing sustainable taxonomy, and there is no public indication that regulators are actively working on developing one.

UNSUSTAINABLE TAXONOMY

The transition to a sustainable economy requires not just an increase in sustainable investments but a substantial reallocation of capital. One approach to facilitate this shift is through the development of an "unsustainable" taxonomy, which would provide a standardized framework for identifying consistently environmentally harmful sectors. This would enable financial institutions to develop clear transition and engagement strategies, ultimately leading to the gradual phasing out of high-risk assets from their balance sheets.

In the long term, once an unsustainable taxonomy is established, it could also serve as a foundation for defining sectors and activities that should no longer receive government subsidies.

Several countries are already moving in this direction. Indonesia, Singapore, Thailand, and Brazil have incorporated or are planning to include classifications for unsustainable/ineligible activities into their sustainable taxonomies.

CORPORATE TRANSITION PLAN

Corporate transition plans and reporting are essential, as real change is driven by the real economy, with the financial system acting as a facilitator. These plans ensure that companies are not only prepared for the challenges of the transition but are also held accountable for their progress. Reporting on these plans provides transparency and allows stakeholders to assess whether businesses are genuinely committed to climate and nature goals.

All EU member states under the SUSREG scope are obligated by the Corporate Sustainability Reporting Directive (CSRD) and the European Sustainability Reporting Standards (ESRS) to incorporate transition plan requirements into their national frameworks. However, the requirement for nature-related transition plans is less detailed compared to those for climate. Additionally, 18 other countries have lower expectations for corporate transition plans, either making them non-binding, still in the planning phase, or lacking alignment with global goals. Currently, no country has fully met the indicator on nature-related transition plans requirement for the corporates.

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

The **China-Singapore Green Finance Taskforce, established by the Monetary Authority of Singapore (MAS) and the People's Bank of China** A key milestone includes **the alignment of the Singapore Asia Taxonomy (SAT) with the International Platform on Sustainable Finance (IPSF)'s Common Ground Taxonomy (CGT)** by the end of 2024. This alignment will facilitate the cross-border issuance of CGT-aligned green financing bonds and loans by Singaporean and Chinese corporates, supported by financial institutions from both countries.

The **UK Transition Plan Taskforce (TPT)** was established to create a gold standard for transition plans. In June 2024, the IFRS Foundation announced it would assume responsibility for the TPT's disclosure materials, a key move towards establishing global norms for transition plan disclosure. In May 2024, the UK government released its Sustainability Disclosure Requirement (SDR) Implementation Update, which outlined plans to consult on how the largest companies in the UK can effectively disclose their transition plans in Q2 2024.

THE CORPORATE SUSTAINABILITY REPORTING DIRECTIVE (CSRD): A NEW ERA FOR EU REPORTING STANDARDS

Building on the Non-Financial Reporting Directive (NFRD), the CSRD introduces more comprehensive requirements to enhance transparency and accountability in environmental, social, and governance (ESG) matters. Officially replacing the NFRD in January 2024, the CSRD requires the first batch of the companies to start disclosing detailed sustainability information from the 2024 financial year, with reports expected in 2025.

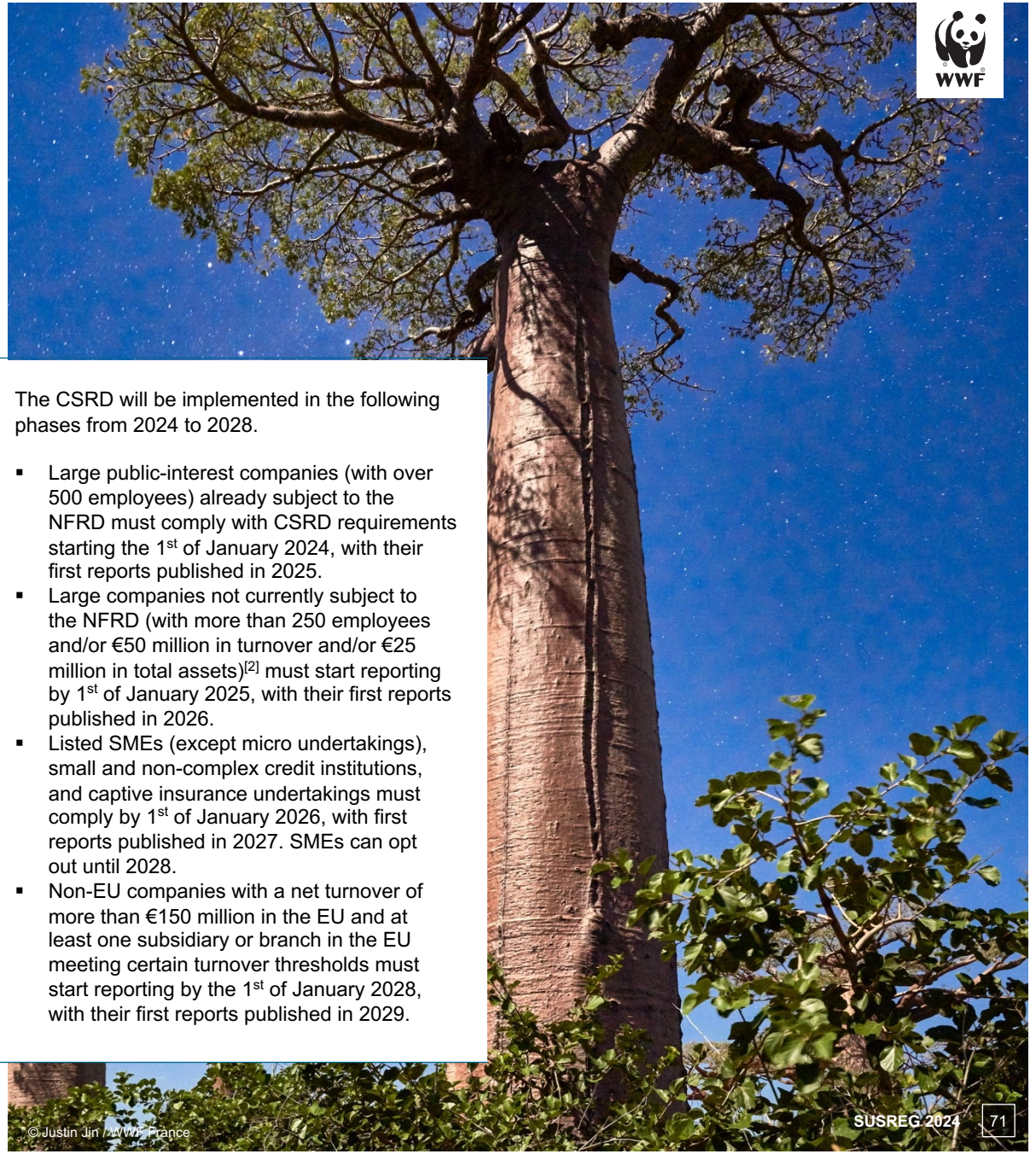
This directive will dramatically increase the number of companies required to comply with EU sustainability reporting requirements. Under the NFRD, around 11,700 companies and groups across the EU are covered. With the CSRD, this number is expected to rise to approximately more than 50,000 European companies and 10,000 companies outside the EU, significantly expanding the scope of sustainability reporting obligations[1].

The CSRD expands its scope to include companies that meets the following criteria:

01 EU-based firms fulfilling at least 2 of the 3 criteria:	02 Small- and medium-sized enterprises:	03 Non-EU companies fulfilling 2 criteria:
▪ 250+ employees on average ▪ €25M+ balance sheet ▪ €50M+ net turnover	▪ whose debt or equity is listed on a regulated EU market ▪ that do not exceed the criteria of large EU-based firms	▪ 1. €150M+ turnover in EU ▪ 2. Has at least one subsidiary that is either large or listed on an EU-regulated market, ***or*** has a branch in the EU with €40M+ net turnover.

The CSRD will be implemented in the following phases from 2024 to 2028.

- Large public-interest companies (with over 500 employees) already subject to the NFRD must comply with CSRD requirements starting the 1st of January 2024, with their first reports published in 2025.
- Large companies not currently subject to the NFRD (with more than 250 employees and/or €50 million in turnover and/or €25 million in total assets)[2] must start reporting by 1st of January 2025, with their first reports published in 2026.
- Listed SMEs (except micro undertakings), small and non-complex credit institutions, and captive insurance undertakings must comply by 1st of January 2026, with first reports published in 2027. SMEs can opt out until 2028.
- Non-EU companies with a net turnover of more than €150 million in the EU and at least one subsidiary or branch in the EU meeting certain turnover thresholds must start reporting by the 1st of January 2028, with their first reports published in 2029.



[1] The Wall Street Journal (WSJ). At Least 10,000 Foreign Companies to Be Hit by EU Sustainability Rules, 2023.
[2] European Commission, COMMISSION DELEGATED DIRECTIVE (EU) of 17.10.2023 amending Directive 2013/34/EU of the European Parliament and of the Council as regards the adjustments of the size criteria for micro, small, medium-sized and large undertakings or groups, 2023

Companies are required to prepare sustainability information in a standardized digital format to ensure accessibility and facilitate comparison by stakeholders. These disclosure requirements are detailed in the European Sustainability Reporting Standards (ESRS), drafted by the European Financial Reporting Advisory Group (EFRAG), which cover various environmental, social, and governance topics[3].

The CSRD introduces several important features in its disclosure requirements:

- **Double Materiality:** Companies must report on how sustainability risks and opportunities affect their business operations, as well as the impact their activities have on society and the environment.
- **Target Setting and Transition Plans:** Companies must report their climate targets and transition plans, assuming that climate change is material to their business. If the company does not have a transition plan in place, it must disclose whether it intends to adopt one, and if so, when.
- **Assurance:** Companies will be required to obtain limited assurance in 2025, for the sustainability information originating from the 2024 fiscal year. An independent auditor must verify that the sustainability reports adhere to the new standards.

As an EU directive, the CSRD must be transposed into national legislation in order to come into force. The EU member states can introduce additional provisions under the CSRD but are not permitted to reduce or eliminate any of its mandatory requirements. Member states are also responsible for setting penalties for non-compliance, which can vary depending on national interpretations. Despite being an EU directive, the CSRD will have global ramifications, applying to companies based outside the EU if they have a presence within the Union. This means that even if a company is headquartered abroad, it must comply with the CSRD if it has at least one subsidiary operating in the EU that meets the threshold to fall within the scope of the regulation.

The Corporate Sustainability Reporting Directive (CSRD) will significantly transform how banks and insurance companies report on their own sustainability practices. Under the CSRD, these financial institutions will face more rigorous and detailed reporting requirements compared to the NFRD. As part of its mandate granted by the CSRD to provide technical advice on ESRS, EFRAG is tasked to develop a set of sector-specific draft ESRS which will include the financial sector.

At the same time, the CSRD will also facilitate better and more uniform data for banks and insurance companies to evaluate their clients' sustainability performance. The directive's standardized reporting requirements will provide a more structured and comparable set of ESG data across various sectors and companies. This uniformity will help financial institutions assess and compare the sustainability practices of their clients more effectively.

EUROPEAN SUSTAINABILITY REPORTING STANDARDS (ESRS)

E1-1 – Transition plan for climate change mitigation

- The undertaking shall disclose its transition plan for climate change mitigation.
- The objective of this Disclosure Requirement is to enable an understanding of the undertaking's past, current, and future mitigation efforts to ensure that its strategy and business model 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 with the objective of achieving climate neutrality by 2050 and, where relevant, the undertaking's exposure to coal, oil and gas-related activities.

E4-1 – Transition plan and consideration of biodiversity and ecosystems in strategy and business model

- The undertaking shall disclose how its biodiversity and ecosystem impacts, dependencies, risks and opportunities originate from and trigger adaptation of its strategy and business model.
- The objective of this Disclosure Requirement is to enable an understanding of the resilience of the undertaking's strategy and business model in relation to biodiversity and ecosystems, and of the compatibility of the undertaking's strategy and business model with regard to relevant local, national and global public policy targets related to biodiversity and ecosystems.
- [...] The undertaking may disclose its transition plan to improve and, ultimately, achieve alignment of its business model and strategy with the vision of the Kunming-Montreal Global Biodiversity Framework and its relevant goals and targets, the EU Biodiversity Strategy for 2030, and with respecting planetary boundaries related to biosphere integrity and land-system change.

[3] European Financial Reporting Advisory Group (EFRAG), ESRS 4: Biodiversity and Ecosystems, 2023.

* Companies are required to report on the ESRS if they consider the risks to be material to their business.

CARBON PRICING

Carbon pricing is another critical component of the enabling environment, as it imposes the necessary economic disincentives to reduce greenhouse gas emissions. A well-designed carbon pricing mechanism creates a level playing field, fosters innovation, and pushes all sectors of the economy toward a low-carbon future. 60% of the countries surveyed have implemented mandatory carbon pricing through carbon taxes or cap-and-trade systems.

An additional 26% of countries have either voluntary carbon markets or mandatory carbon pricing with limited sectoral and regional coverage. According to the World Bank's Carbon Pricing Dashboard[1], South Africa and Japan are among the countries with the highest carbon ETS (Emissions Trading System) coverage, exceeding 80%.

NATIONAL LEVEL STRATEGY

Addressing the impacts of climate and environment risks requires a huge transformation across all sectors. Achieving this level of change demands strong political will, as governments must overcome resistance from different stakeholders and build cross-sectoral support to drive progress. Relying solely on market forces will not suffice, the governments must take the lead in setting ambitious goals and implementing strategies.

Among these, 60% and 30% of countries have published strategies that include net-zero and nature-positive goals (or similar) respectively, with financial institutions explicitly recognized as key players in their blueprints. However, the 36% and 62% either do not set a specific goals nationally, or do not specifically address the financial sector in their published national strategies.

SME GREEN SUPPORT

SMEs play a crucial role in many economies, but they often lack the resources and capacity to adapt to sustainable practices without targeted support. Programs designed to assist SMEs, such as tailored financing solutions, grants, or capacity-building initiatives, are vital for enabling these businesses to contribute to, and benefit from, the transition to a sustainable economy.

46% of the countries assessed have introduced such support to the SMEs. In Malaysia for example, to encourage more SMEs to take the first steps along the ESG journey, the JC3 SME Focus Group (“SFG”) has developed an ESG JumpStart Guide (“the Guide”), a simple and practical reference guide for SMEs. It contains suggested actions that SMEs could take to build up basic ESG knowledge & capability as well as Identifying and responding to key ESG issues, risks & opportunities.

JUST TRANSITION

Equally important is the inclusion of just transition initiatives, which ensure that the shift to a green economy does not disproportionately impact the most vulnerable workers and communities. A just transition framework is necessary to provide retraining, employment support, and community development, mitigating the social and economic risks associated with the transition.

Half of the assessed countries have implemented some tangible Just Transition initiatives within the country. For instance, Costa Rica has established a funding strategy to support sectors directly impacted by the transition, while the EU’s Just Transition Mechanism, along with commitments in the Green Deal, aims to safeguard the affected community during the shift to a low carbon economy.

The EU aims to achieve climate neutrality by 2050 and restore at least 20% of its land and sea by 2030. The recently published Capital Requirements Directive VI by the **European Commission mandates financial institutions to assess the alignment of their portfolios with the Union's ambition to become climate-neutral by 2050,** as well as to prevent environmental degradation and biodiversity loss.

The Department of Trade and Industry (DTI) of the Philippines and the Global Reporting Initiative (GRI) have signed a Memorandum of Understanding (MoU) to train micro, small, and medium enterprises (MSMEs) in sustainability best practices and help them report on their sustainability impacts. This joint program has a five-year roadmap, initially focusing on training 8,000 MSMEs in sustainability and reporting. The program aims to **support 300 MSMEs in publishing their first sustainability reports** by the end of the period.

In its National Climate Change Response White Paper, the **government of South Africa outlined its plan on the National Employment Vulnerability Assessment (NEVA) and Sector Jobs Resilience Plans (SJRP)** to **transition employment from a carbon-intensive economy to a lower-carbon economy.** The SJRPs will explore the synergy between mitigation and adaptation strategies and assess the potential for sustainable net job creation in each sector.

[1] The World Bank, State and Trends of Carbon Pricing Dashboard, accessed in September 2024.

PROJECT GAIA: A NEW WAY OF EXTRACTING CLIMATE-RISK INDICATORS FROM CORPORATE REPORTS USING AI MODEL

A lack of comparable data due to inconsistent reporting standard is one of the key challenges faced by the central banks, supervisors, and financial institutions to accurately assess the risks associated with climate change. The Project Gaia[1] aims to overcome this by using cutting-edge artificial intelligence tools to extract relevant information from diverse company reports, covering a period of five years from 2018 to 2022, in order to develop key indicators needed for the analysis, such as total emissions, green bond issuance, and voluntary net zero commitments. It offers a scalable solution for extracting and analyzing harmonized climate-related Key Performance Indicators (KPIs) from corporate reports, which was previously a labor-intensive, manual, and time-consuming process. It further enhances transparency and traceability by providing a justification and direct view into the sources for each KPI extracted.

The project is a collaborative initiative by the Bank for International Settlement (BIS) Innovation Hub Eurosystem Centre, Banco de España, Deutsche Bundesbank, and European Central Bank to leverage generative artificial intelligence (GenAI), particularly using large language models (LLMs). Additionally, the design of Gaia allows for easy modification of new KPIs, for adopting new LLM models and the incorporation of new institutions, making it applicable to a broader context beyond climate risks. Moreover, Gaia proved be largely language independent.

The project was tested using publicly available corporate data to review the flexibility and scalability of the platform while showcasing its capability to perform large-scale macro analysis. Gaia was used to extract 20 KPIs from 2,328 documents (ESG, Pillar 3, financial statements, annual report, and other relevant documents) coming from 187 systemically important financial institutions from across the world (35% European, 15% North American, 35% Asia-Pacific, 16% rest of the world) over a 5-year period from 2018-2022.

To test the reliability of Gaia, the project team conducted manual cross-checks and comparisons of Scope 1 emissions—one of the widest available KPIs— with three commercial data sources, finding a high degree of accuracy in the extracted data. Notably, Gaia achieved a 74% match rate with at least one commercial data source for the Scope 1 emissions data. This is a promising data accuracy level for wider application and further development in the future.

The project further uses the extracted data in the pilot exercise to conduct green finance micro analysis. One output that was produced is a trend in emission reporting. It shows that of the 187 institutions, Scope 3 emissions are less reported by the sampled companies, with only 48% coverage due to their complexity. Meanwhile, Scope 2 emissions are more often reported using the location-based method (emissions intensity of grids where energy consumption occurs) rather than the market-based method (emissions from the specific types of energy that a company purchases). The analysis also reveals that in 2022, 82% of companies had a net zero commitment, but only 30% set a 2030 absolute GHG reduction target and only 3% had done so for 2050 target, indicating a gap between the grand ambitions and setting specific milestones and detailed planning.

Further, Gaia can be utilized by financial supervisors and central banks to monitor and assess the adoption of net-zero policies among financial institutions while highlighting both regional disparities and convergences over time. The Gaia pilot analysis found a steady increase in net zero adoption across all regions. Initially, fewer than 40% of financial institutions committed to net-zero policies, with Europe leading. Over time, the share of banks adopting the policy goals has increased across regions. In particular, the adoption rate among Asia-Pacific banks increased significantly in 2020 and is now at a similar level to that seen in the Americas.

This groundbreaking initiative demonstrates how AI-driven approaches can be adapted for various regulatory and supervisory use cases within central banks and the financial sector, particularly to assess and manage climate and nature-related data. In the future, AI can be utilized not only to gather data and information but also transform it into structured data for a better decision-making process.

"In today's world, central banks' strong commitment with climate change and sustainability agendas is undisputed. In that respect, we must remain open and embrace novel technologies in order to improve the timeliness and accuracy with which we can assess climate-related financial risks. Such a roadmap avails ourselves with modern tools to help react swiftly and efficiently with a view to successfully contribute to reducing their footprint. Among the many choices at our disposal, I believe that GenAI holds the potential to offer us a pathway of unlimited opportunities, and large-scale analysis, which so far we have only barely touched on."

JOSÉ MANUEL MARQUES,
Director of Financial Innovation and Market Infrastructures Department at Banco De España and Chair of the Green Finance Working Group – BIS Innovation Network

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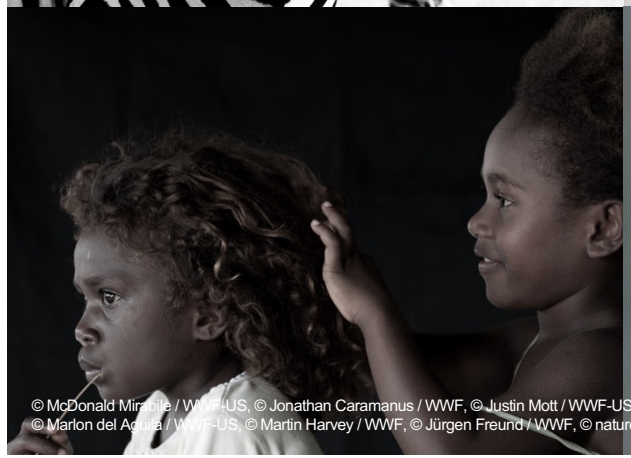
[1] Bank for International Settlements, Project Gaia: Enabling climate risk analysis using generative AI, 2024.








ANNEXES




ANNEX 1: COUNTRIES AND INSTITUTIONS COVERED

REGION	INSURANCE SUPERVISOR	BANKING SUPERVISOR	CENTRAL BANK
AMERICA			
BERMUDA	Bermuda Monetary Authority (BMA)	*Not assessed*	*Not assessed*
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	*Not assessed*	Banco Central del Paraguay (BCP)	
PERU	*Not assessed*	Superintendency of Banking, Insurance and Private Pension Fund Administrators of Peru (SBS)	Banco Central de Reserva del Perú
UNITES STATES OF AMERICA	Federal Insurance Office (FIO) National Association of Insurance Commissioners (NAIC)	Office of the Comptroller of the Currency (OCC), The Federal Reserve (FED), and Federal Deposit Insurance Corporation (FDIC)	The Federal Reserve (FED)
NEW YORK	The New York State Department of Financial Services (DFS)	The New York State Department of Financial Services (DFS), Office of the Comptroller of the Currency (OCC), and Federal Reserve Bank of New York	Federal Reserve Bank of New York
CALIFORNIA	California Department of Insurance (CDI)	Office of the Comptroller of the Currency (OCC), Federal Reserve Bank of San Francisco, and California Department of Financial Protection and Innovation (DFPI)	Federal Reserve Bank of San Francisco

REGION	INSURANCE SUPERVISOR	BANKING SUPERVISOR	CENTRAL BANK
EUROPE			
AUSTRIA	Financial Market Authority		Oesterreichische Nationalbank (OeNB)
DENMARK	Danish Financial Supervisory Authority (DFSA)		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	
LUXEMBOURG	Commissariat aux Assurances (CAA)	Commission de Surveillance du Secteur Financier (CSSF)	Banque centrale du Luxembourg (BCL)
NETHERLANDS	De Nederlandsche Bank (DNB)		
NORWAY	Finastilsynet (Financial Supervisory Authority of Norway)		Norges Bank
PORTUGAL	Autoridade de Supervisão de Seguros e Fundos de Pensões	Banco de Portugal (BdP)	
SLOVENIA	*Not assessed*	Banka Slovenije (BSI)	
SOUTH AFRICA	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 KINGDOM	Prudential Regulation Authority (PRA)		Bank of England (BoE)

REGION	INSURANCE SUPERVISOR	BANKING SUPERVISOR	CENTRAL BANK
MIDDLE EAST & AFRICA			
KENYA	Insurance Regulatory Authority (IRA)	Central Bank of Kenya (CBK)	
MADAGASCAR	*Not assessed*	The Commission de Supervision Bancaire et Financière (CSBF)	Banque Centrale de Madagascar (BCM)
MOROCCO	The Supervisory Authority for Insurance and Social Welfare (ACAPS)	Bank Al-Maghrib	
SAUDI ARABIA	*Not assessed*	Saudi Central Bank (SAMA)	
UNITED ARAB EMIRATES	Central Bank of the UAE, Dubai Financial Services Authority (DFSA) for the Dubai International Financial Centre (DIFC), and Financial Services Regulatory Authority (FSRA) for Abu Dhabi Global Market (ADGM)		Central Bank of the UAE
TÜRKIYE	Insurance and Private Pension Regulation and Supervision Agency (SEDDK)	Banking Regulation and Supervision Agency (BDDK)	Central Bank of the Republic of Türkiye
ZAMBIA	*Not assessed*	Bank of Zambia	
UGANDA	The Insurance Regulatory Authority of Uganda	Bank of Uganda	

REGION	INSURANCE SUPERVISOR	BANKING SUPERVISOR	CENTRAL BANK
ASIA PACIFIC			
AUSTRALIA	Australian Prudential Regulation Authority (APRA)		Reserve Bank of Australia (RBA)
BANGLADESH	*Not assessed*	Bangladesh Bank	
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 (IRDAI)	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 Comission (FSC)	*Not assessed*	*Not assessed*
THAILAND	Office of Insurance Commission (OIC)	Bank of Thailand (BOT)	

ANNEX 2: SUSREG INDICATORS FOR BANKING

BANK PRACTICES	
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 fresh water risks in their decision-making, risk management processes and policies.
1.3.13	The supervisor asks banks whether and how they integrate oceans and marine life related risks in their decision-making, risk management processes and policies.
PORTFOLIO RISKS & IMPACTS	
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.

1.4.6	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 center 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 analyze 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.
MONITORING & ENFORCEMENT	
1.9.1	Financial supervisors publish a report on the progress of financial institutions in meeting their supervisory expectations.
1.9.2	Financial supervisors disclose their enforcement policy concerning financial institutions that fail to align with their supervisory expectations
CENTRAL BANK PRACTICES	
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-related nominal anchors as 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 a science-based transition plan with associated measures for designing a net-zero and nature-positive financial center, 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)
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, channeling 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.
3.1.13	The government has initiatives on Just Transition aimed at ensuring that no one is left behind in the transition to a net-zero and positive economy.

ANNEX 3: SUSREG INDICATORS FOR INSURANCE

INSURANCE PRACTICES	
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.
1.1.0	The principle-based regulations or supervisory expectations related to sustainable insurance which have been issued are applicable to all supervised insurers.
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 defense 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.
1.3.11	The supervisor asks insurers whether and how they integrate fresh water risks in their decision-making, risk management processes and policies.
1.3.12	The supervisor asks insurers whether and how they integrate Oceans and marine life related risks in their decision-making, risk management processes and policies.
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 analyze 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 analyze, 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 underwiring 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.
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 stress-testing 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 a net-zero and nature-positive financial sector, in line with its mandate.
1.8.3	The supervisor has established an internal organization 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 analyze 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 organise the exchange of information with reinsurers (e.g. through joint working groups) to leverage their specific E&S expertise.
MONITORING & ENFORCEMENT	
1.9.1	Financial supervisors publish a report on the progress of insurance companies in meeting their supervisory expectations.
1.9.2	Financial supervisors disclose their enforcement policy concerning financial institutions that fail to align with their supervisory expectations

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	Tax, regulatory or other incentives are in place for insurers to finance or insure certain industry sectors or to develop new and innovative insurance products, based on E&S considerations (for example supporting long-term investments in illiquid assets such as sustainable infrastructure or providing performance warranty for renewable energy solutions).
3.1.13	The government has initiatives on Just Transition aimed at ensuring that no one is left behind in the transition to a net-zero and positive economy.
3.1.14	National Public-Private Partnerships are in place to support the continued provision of insurance covering E&S risks (e.g. co-insurance pools).
3.1.15	The country is part of regional disaster risk reduction facilities.

ANNEX 4: ASSESSMENT METHODOLOGY

BANKING SUPERVISION			WEIGHTAGE	
SUPERVISION	MICRO-PRUDENTIAL SUPERVISION	SCOPE & IMPLEMENTATION	7.2%	73.7%
		STRATEGY & GOVERNANCE	10.2%	
		POLICIES & PROCESSES	13.8%	
		PORTFOLIO RISKS & IMPACTS	10.8%	
		MICRO-PRUDENTIAL SUPERVISION (RULE-BASED)	9.6%	
		DISCLOSURE & TRANSPARENCY	10.8%	
	MACRO-PRUDENTIAL SUPERVISION		9.0%	
	MONITORING & ENFORCEMENT		2.4%	
LEADERSHIP & INTERNAL ORGANIZATION				9.6%
ENABLING ENVIRONMENT				16.8%
TOTAL				**100.0%**

INSURANCE SUPERVISION			WEIGHTAGE	
SUPERVISION	MICRO-PRUDENTIAL SUPERVISION	SCOPE & IMPLEMENTATION	5.9%	74.8%
		STRATEGY & GOVERNANCE	9.1%	
		POLICIES & PROCESSES	11.8%	
		PORTFOLIO RISKS & IMPACTS	14.0%	
		MICRO-PRUDENTIAL SUPERVISION (RULE-BASED)	8.1%	
		DISCLOSURE & TRANSPARENCY	14.0%	
	MACRO-PRUDENTIAL SUPERVISION		9.7%	
	MONITORING & ENFORCEMENT		2.2%	
LEADERSHIP & INTERNAL ORGANIZATION				9.1%
ENABLING ENVIRONMENT				16.1%
TOTAL				**100.0%**

CENTRAL BANKING			WEIGHTAGE
MONETARY POLICY			59.7%
LEADERSHIP & INTERNAL ORGANIZATION			40.3%
TOTAL			**100.0%**

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