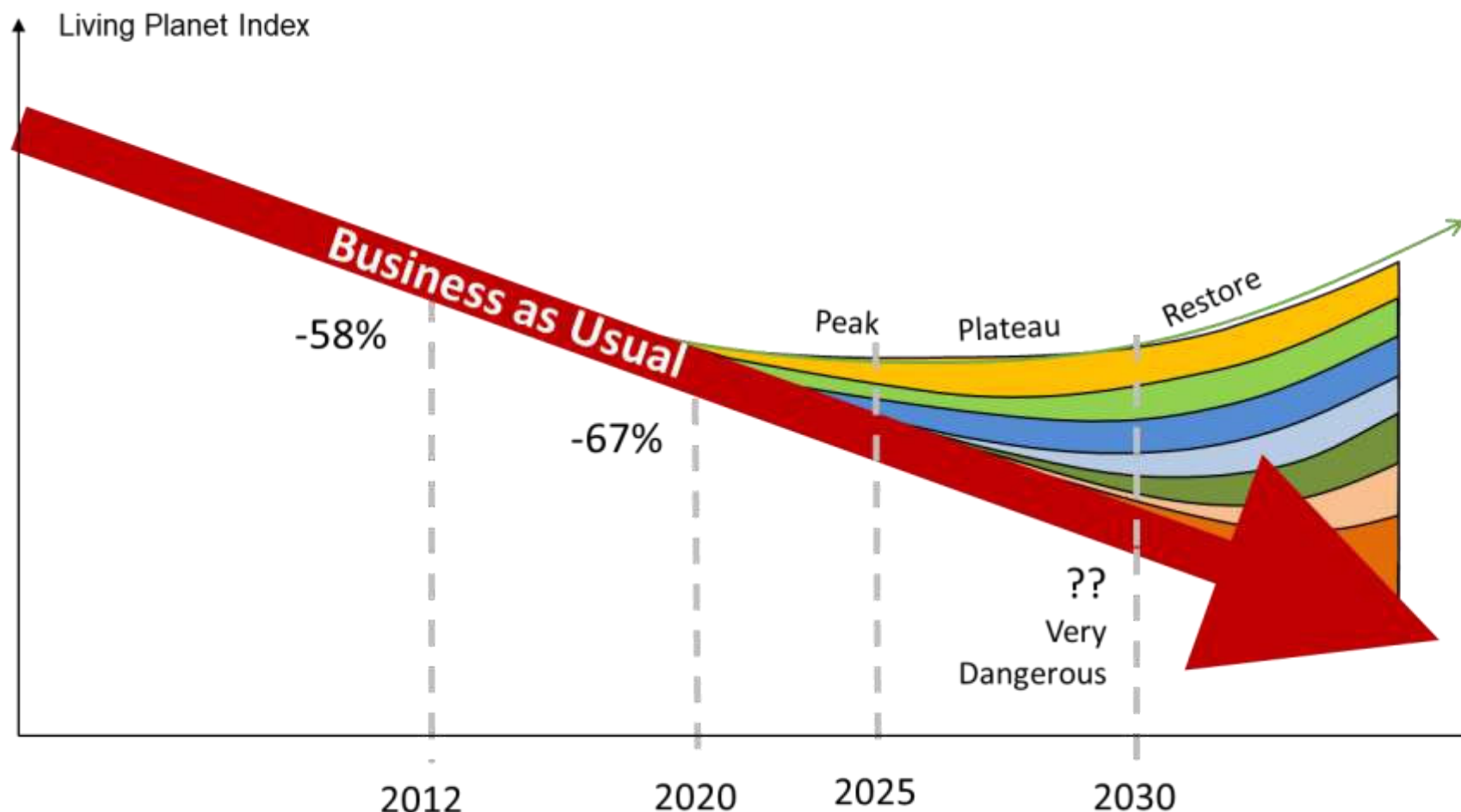


SUSREG 2023
AN ASSESSMENT OF SUSTAINABLE FINANCIAL REGULATIONS AND
CENTRAL BANK ACTIVITIES
Magnus Emfel, Chief Economist, WWF Sweden
SWESIF 2024-03-13

WWF Finance – Strategy & Objective

WWF's objective is to encourage **a meaningful shift in Finance** to achieve our shared global goals like the **SDGs**.



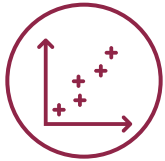
Using the framework of risk and opportunity, we can:

- Influence Finance to improve integration of environmental risks
- Encourage Finance to deliver greater investment for sustainable development
- Use the influence of Finance to drive sustainable practices through the rest of the economy

WWF's Greening Financial Regulation

Initiative (GFRI)

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



SUSREG

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



RESEARCH

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



CAPACITY BUILDING

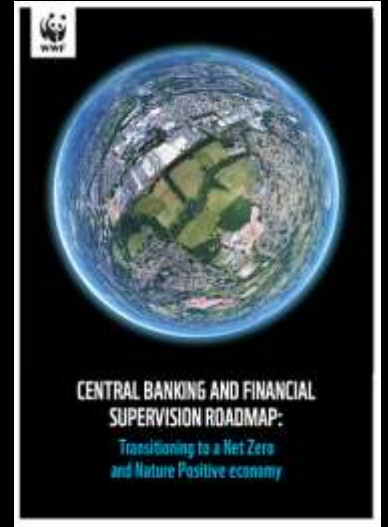
Targeted assistance to central banks and supervisors
(overview of tools, methodologies, integrate climate change and biodiversity loss related risks, workshops, trainings)



ADVOCACY

International advocacy on sustainable financial regulation

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



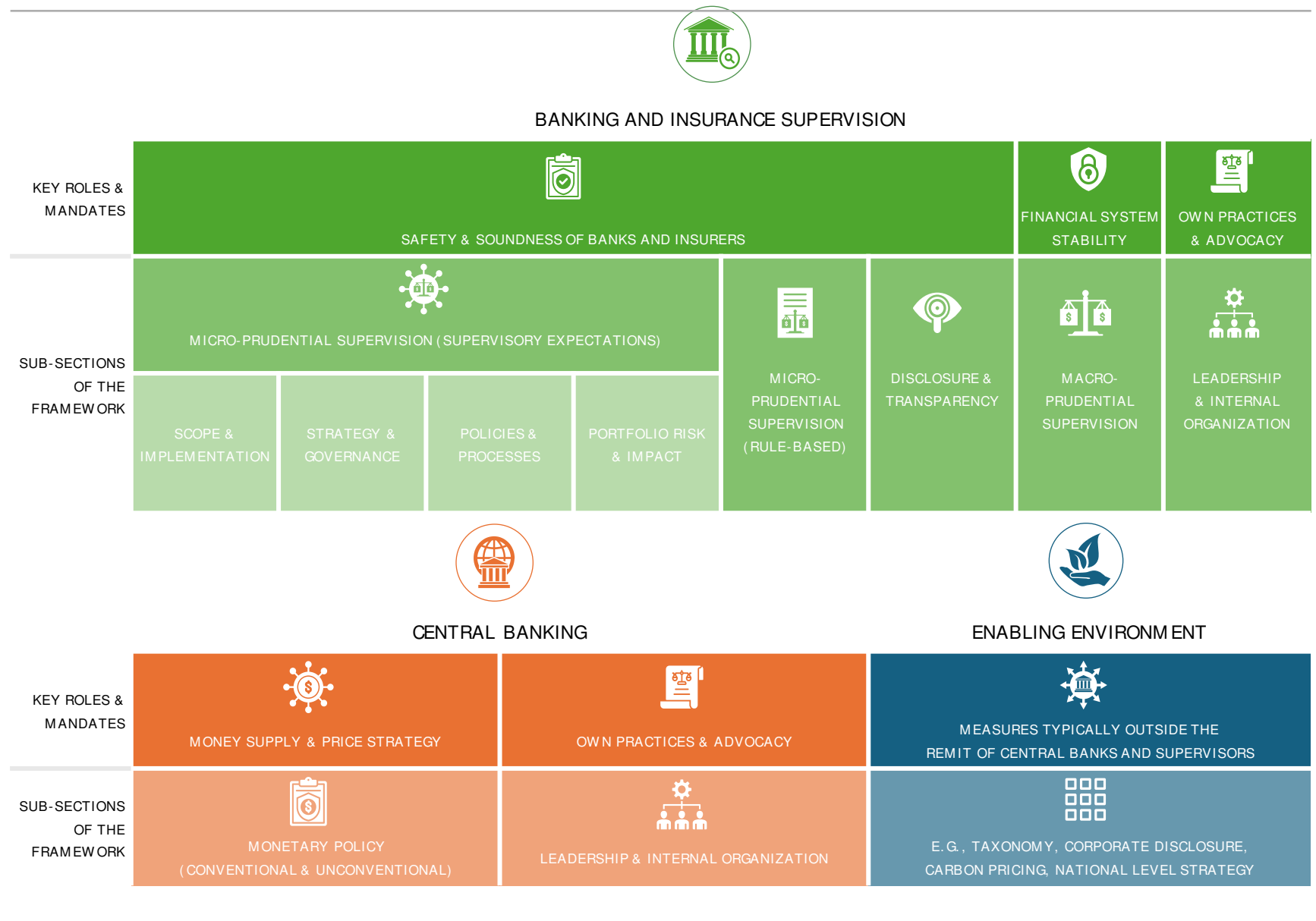
SUSREG TRACKER FRAMEWORK

THE FRAMEWORK BUILDS ON:

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

Visit and explore:

[WWF Singapore SUSREG | Home](#)



INDICATORS

BANKING SUPERVISION

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

CENTRAL BANKING

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

ENABLING ENVIRONMENT

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

INDICATORS

INSURANCE SUPERVISION

ENABLING ENVIRONMENT

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

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

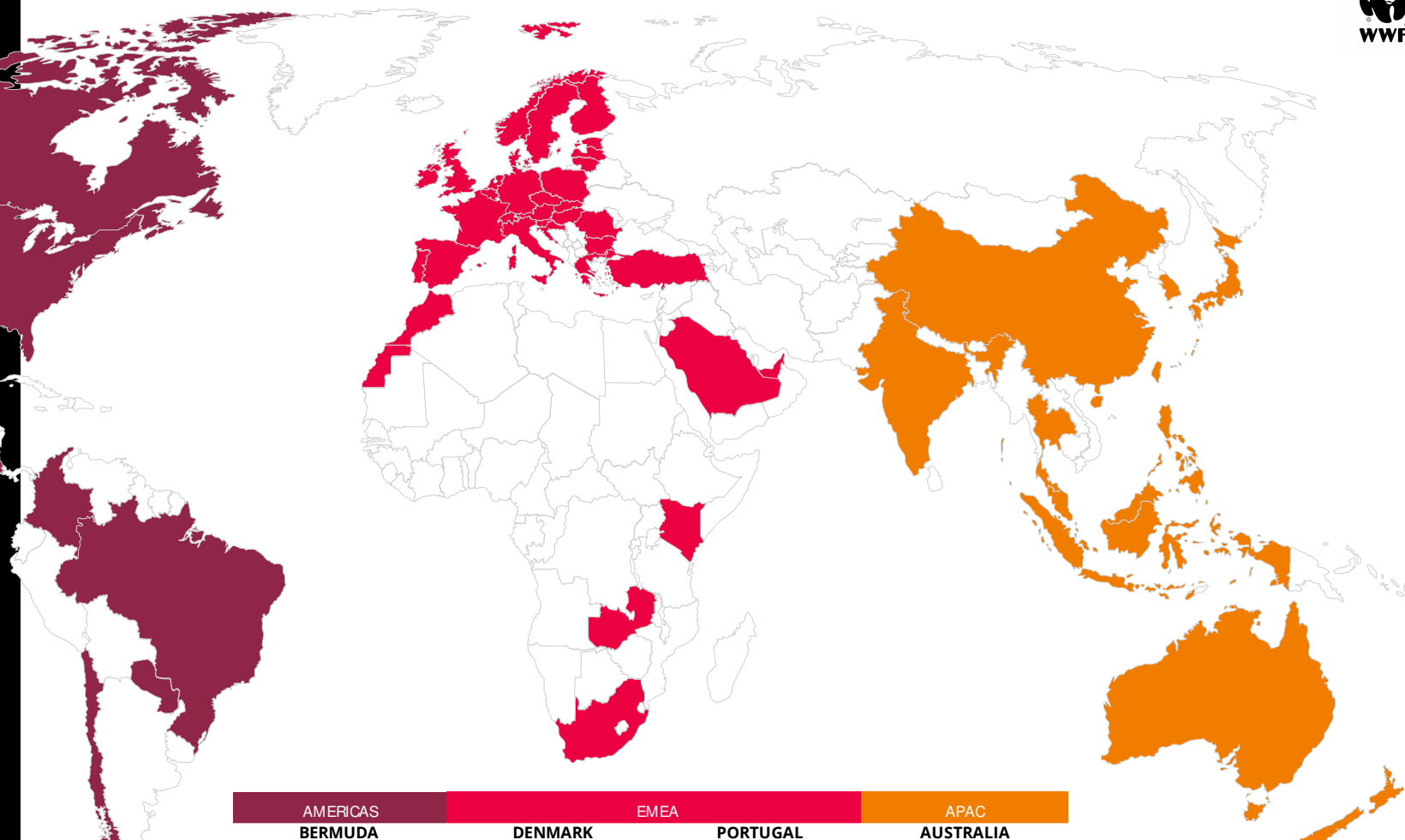
* Insurancespecific

SUSREG GEOGRAPHICAL COVERAGE

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

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

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



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



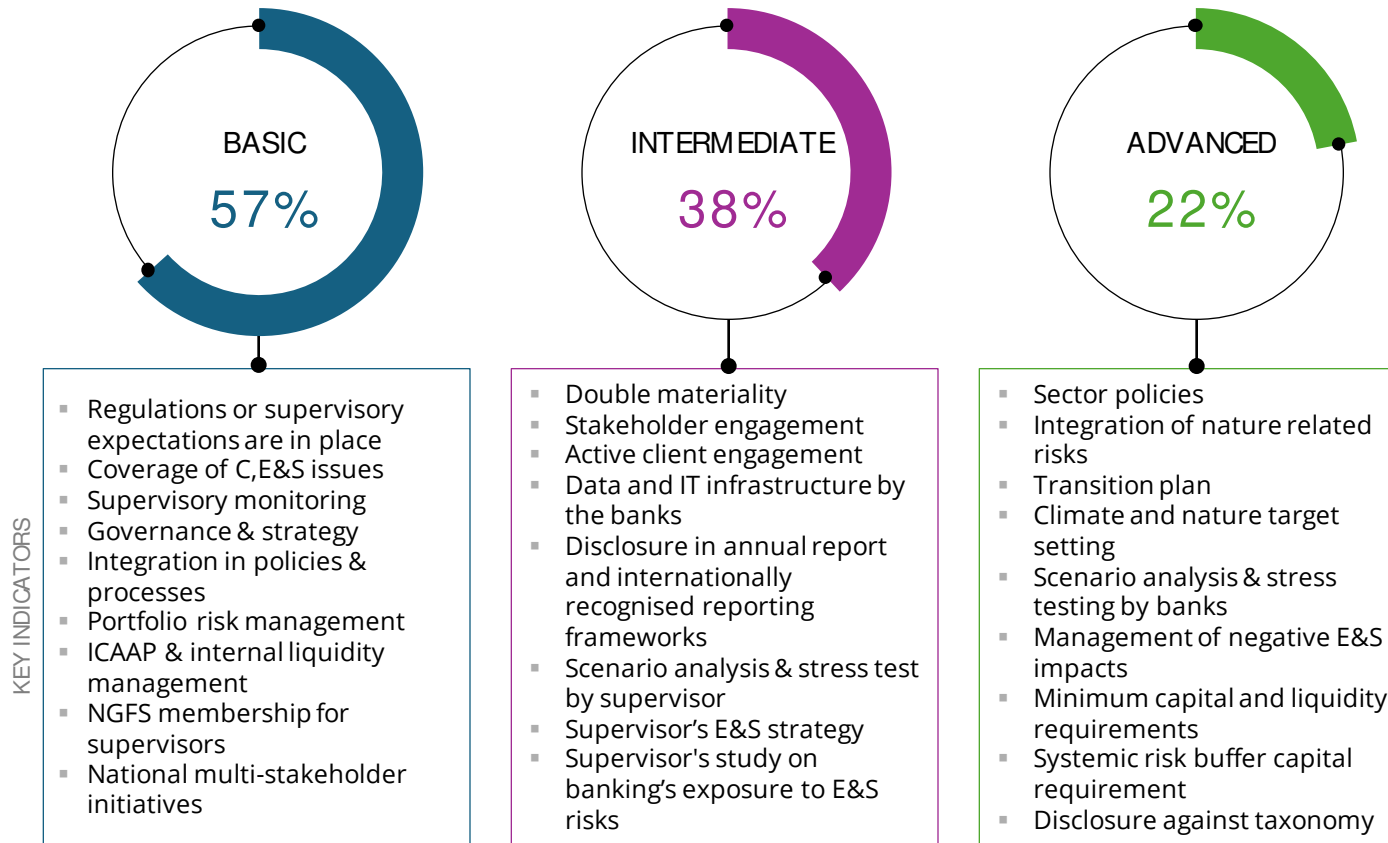
HIGHLIGHTS OF 2023





While 57% of the basic indicators are met, significant gaps remain with only 22% of the advanced indicators fulfilled

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



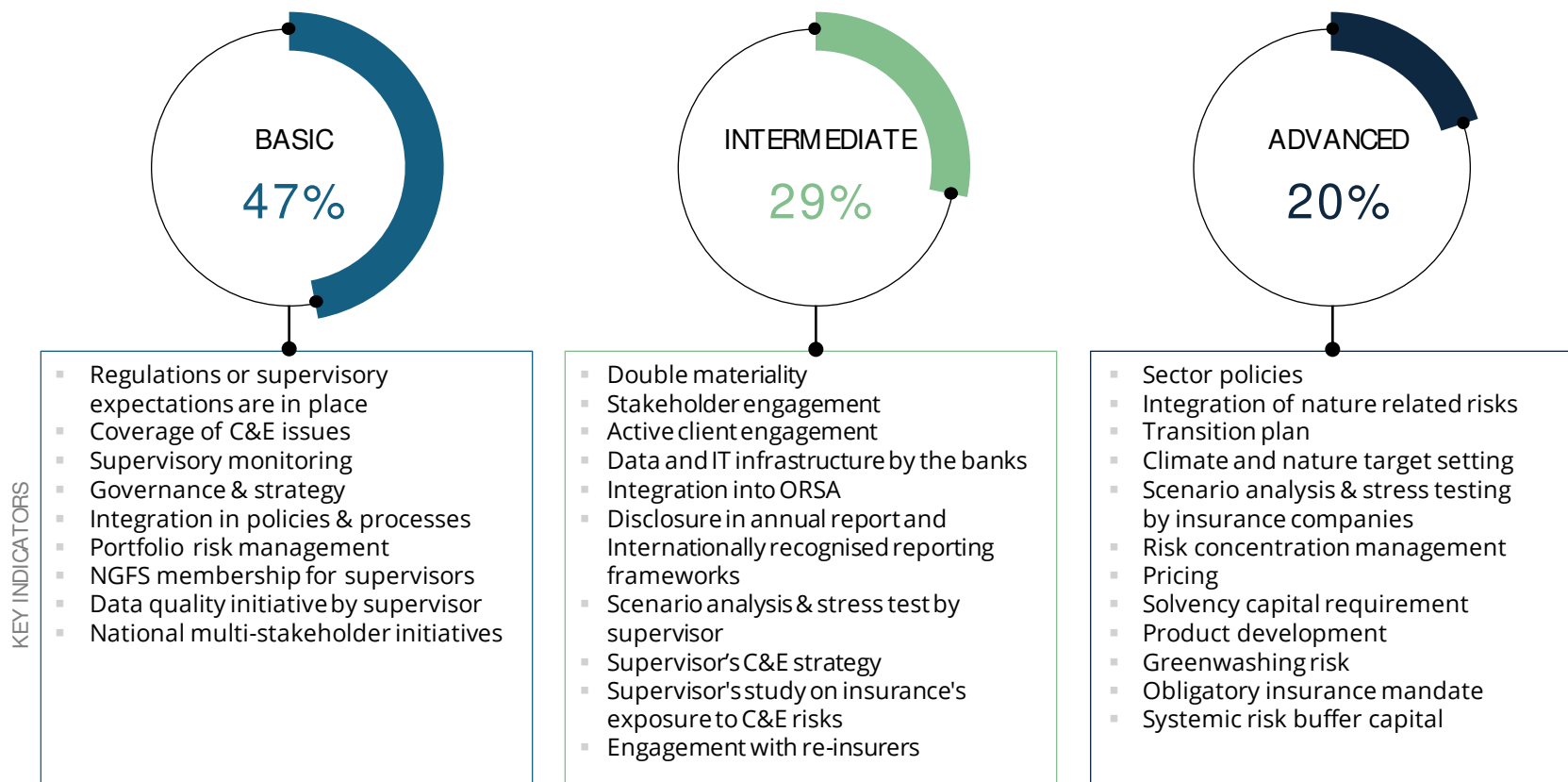
Note: The number displayed on the graph represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment, the results were given equal weight. Partially met criteria allow for a 50% score, while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

- On average, 57% of the basic indicators have been achieved.
- Under intermediate indicators, we observe a lower level of achievement at 38%.
- This suggests that there is less emphasis on addressing issues such as double materiality, active client engagement, and scenario analysis by supervisors in certain countries.
- Only 22% of the indicators have been fulfilled in advanced indicators.
- Among these, the strongest performance is seen in expectations for scenario analysis and stress testing.



Overall, less than half of the basic indicators, and even FEWER for intermediate and advanced indicators for climate and environment, are fulfilled

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

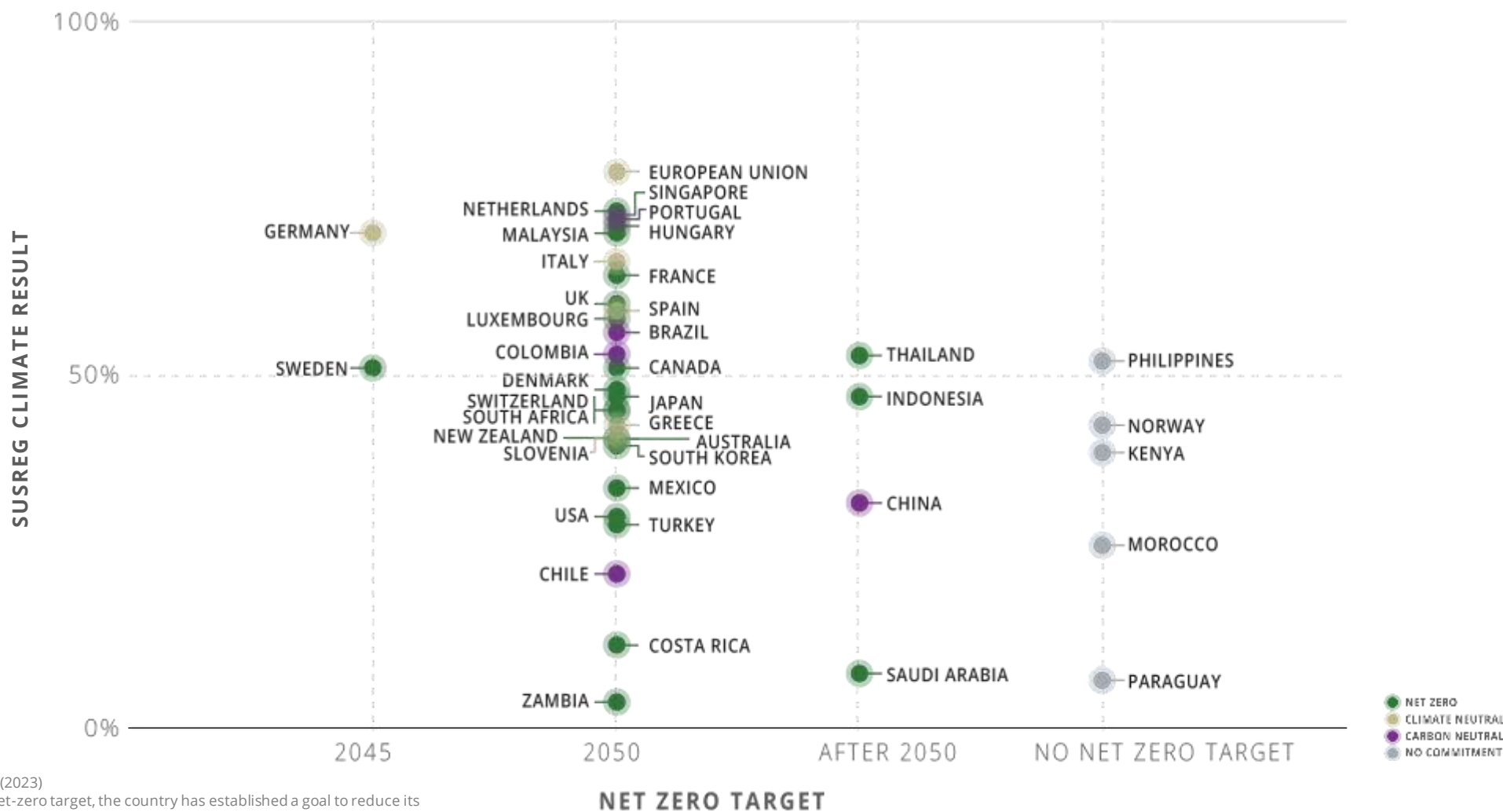


Note: The number displayed in the graph represents the average result for climate and environmental assessment, excluding social assessment. In cases where an indicator is divided between climate and environment and/or between investment and underwriting, the results were given equal weight. Partially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

- **Less than half of the basic indicators** are reflected in the supervisory expectations
- However, on **intermediate indicators, we observe a large drop to 29%**. A further drop is observed and only **20%** of the expectations have been fulfilled in **advanced** indicators.
- On average, **insurance supervisors often address the general topics (basic) but may miss the specifics related to insurance.**
- For some countries, this could notably be because the financial regulator sets **general expectations to be applied by both insurance companies and banks.**

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

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



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

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



BANKING SUPERVISION

SWEDEN



Sweden - Banking Supervision Results (2023)

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

Gap & current practice	Recommendation	Good Practices
<p>(1.3.6) Integration of nature</p> <ul style="list-style-type: none"> • Mentioned as part of the general considerations in the ESRS • No detailed guidance and requirements are in place yet on how financial institutions are expected to assess and manage their nature risks 	<ul style="list-style-type: none"> • Supervisor asks banks whether and how they integrate deforestation and wider habitat conversion issues in decision-making, risk management processes and policies. • A good reference to be published soon "Action on nature by central banks and supervisors" by WWF NL & Sustainable Finance Lab 	<p>In March 2023, DNB launched their "Guide to managing climate and environmental risks" which include issues like water or air pollution, deforestation and loss of biodiversity and ecosystem services. A Guideline on the use of Deforestation Risk Mitigation Solutions for Financial Institutions was issued in the Netherland.</p> <p>The Hungarian central bank is developing supervision methodologies to tackle for biodiversity loss.</p>
<p>(1.4.2) Scenario analysis & stress test for banks</p> <p>No requirement</p>	<ul style="list-style-type: none"> • Banks are expected or required to assess and mitigate their portfolio-level exposure to material E&S risks, and there is an explicit mention of science-based forward-looking scenario analysis and/or stress-testing. • The regulations or guidelines also mention the need to use a range of scenarios reflecting various potential outcomes, over both the short- and the long-term. 	<p>In Canada, the Federally Regulated Financial Institutions (FRFI) are expected to use climate scenario analysis to assess the impact of climate-related risk drivers on its risk profile, business strategy, and business model. When undertaking climate scenario analyses, the FRFI should consider a range of plausible and relevant models and climate scenarios, over various time horizons (i.e., short-, medium- and long-term), when climate-related risks can materialize and drive the FRFI's risks.</p>
<p>(1.4.4) Climate target setting</p> <ul style="list-style-type: none"> • Applicable for large corporates, in which some banks and insurers are included (but not all) • No alignment with the 1.5 C goal 	<ul style="list-style-type: none"> • Banks are expected to set climate science-based targets to align their portfolio with the objectives of the Paris Agreement. 	<p>Climate target setting:</p> <p>The Bank of Thailand's Policy Statement on "Internalizing Environmental and Climate Change Aspects into Financial Institution Business" mandates banks to set a clear target and key performance indicators for effective assessment and monitoring, such as setting science-based emission reduction targets (e.g. greenhouse gas emission reduction targets in line with the Paris Agreement based on climate science, which targets the average global temperature increase of no more than 1.5 – 2.0 degree Celsius.)</p>



INSURANCE SUPERVISION

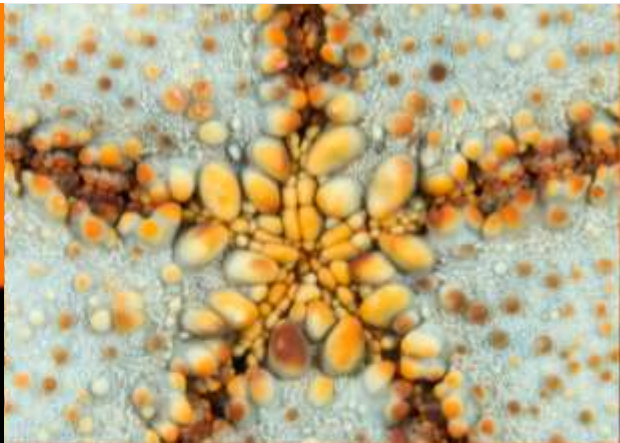
SWEDEN



Sweden - Insurance supervision results (2023)

Insurance Supervision								Enabling environment
						SUPERVISOR PRACTICES		Market
1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	3.1
Scope & implementation	Strategy & Governance	Policies & processes	Portfolio risk & impact	Micro-prudential	Disclosure & transparency	Macro-prudential	Leadership & internal organisation	Outside supervisor / central bank mandate
Regulations or supervisory expectations	Business & risk strategy	Sector policies	Manage portfolio E&S risk	Enterprise Risk Management framework	E&S in business policies & processes	Supervisor's stress testing	NGFS membership for supervisors	Multi-stakeholder initiative
E&S scope	Risk appetite	Standards & certification	Scenario analysis & stress testing	Solvency capital requirements	Time-bound transition plan	Stress testing method	Supervisor's transition plan	Capacity building efforts
Double materiality assessment	Long-term consideration	Client support on international standard	Management of negative E&S impacts	Expectations of reinsurers	Internationally recognised reporting frameworks	Stress testing publication	Internal organisation & resources (FS)	Green taxonomy
Supervisor monitoring	Board communication	Supervisor risk checklists	Climate target setting	Product development	Disclosure in annual report	Risk indicators monitoring	Study on insurer's exposure	Brown taxonomy
Public consultation	Remuneration policy	Policies & processes	Nature target setting		Sub-sectors credit disclosure	Exposure limit	Alignment to sustainability goals	Corporations sustainability reporting
	Staff & resources	Nature-related risks	Risk concentration & ALM		Disclosure against taxonomy	Obligatory Insurance mandates	Staff training	Corporations transition plan
	Board appointments	Three lines of defense	Natural catastrophe claims		Portfolio exposure & mitigation	Integrated financial groups supervision	Study on transmission channels	Carbon pricing
	Board responsibilities	Non-compliance mitigation	Manage reputation & litigation risk		Material negative E&S impact	Systemic E&S risks in capital requirements	Data quality initiatives	National-level sustainability strategy
	Executive management	Client engagement	Validate third parties' analysis		Greenwashing risks		Engagement with reinsurers	Regulations on sustainable products
	Core functions	Data infrastructure	Risk concentration management		External assurance		Just transition	SME guidelines
	Training	Water risks	E&S risk in pricing					Sovereign sustainable bond
	Stakeholder involvement		Pricing incentives					Targets and incentives
	Code of conducts and guidelines							Public-private partnerships
								Disaster risk reduction facilities

Gap & current practice	Recommendation	Good Practices
<p>(1.4.6) Risk concentration No requirement</p>	<ul style="list-style-type: none"> Insurers are expected or required to analyse the impacts of E&S considerations on the concentration of risks between investment and underwriting activities, and to factor E&S risk in their asset-liability management (ALM). 	<p>Bermuda Monetary Authority in the Guidance Notes Management of Climate Change Risks for Commercial Insurers requires insurers to integrate climate risk into their investment strategies and manage related exposures, including concentration risks. For example, an insurer might develop procedures to manage concentrations in the investment portfolio to certain geographic or economic sectors with higher physical and transitional climate risk exposures.</p>
<p>(1.5.2) Solvency capital requirements No requirement</p>	<ul style="list-style-type: none"> The insurers regulator or supervisor has incorporated risk-based E&S considerations, focusing on most environmentally harmful sectors, in the calculation of the Solvency Capital Requirement 	<p>EIOPA in their discussion paper titled "Prudential Treatment of Sustainability Risks" considers it relevant to start assessing quantitatively the potential for a dedicated treatment of transition risk exposures in the solvency capital requirements. EIOPA proposes to focus the analysis on market risks in terms of equity, spread and property risk, as these market risk categories relate to the most relevant asset classes for undertakings.</p>
<p>(3.1.4) Brown taxonomy No taxonomy for unsustainable activities is in place</p>	<ul style="list-style-type: none"> A taxonomy for unsustainable activities is in place The taxonomy has been developed following a multi-stakeholder process and is considered to be science-based 	<p>The taxonomy in Indonesia, Singapore and Thailand adopt a traffic light system which includes red categories of harmful activities that are not compatible with climate and environmental goals and needs to be phased out. In Thailand and Singapore, the taxonomy has published detailed list of activities thresholds and criteria to qualify for the traffic light classification of specific sectors. More sectors are expected to be covered by both taxonomies.</p>

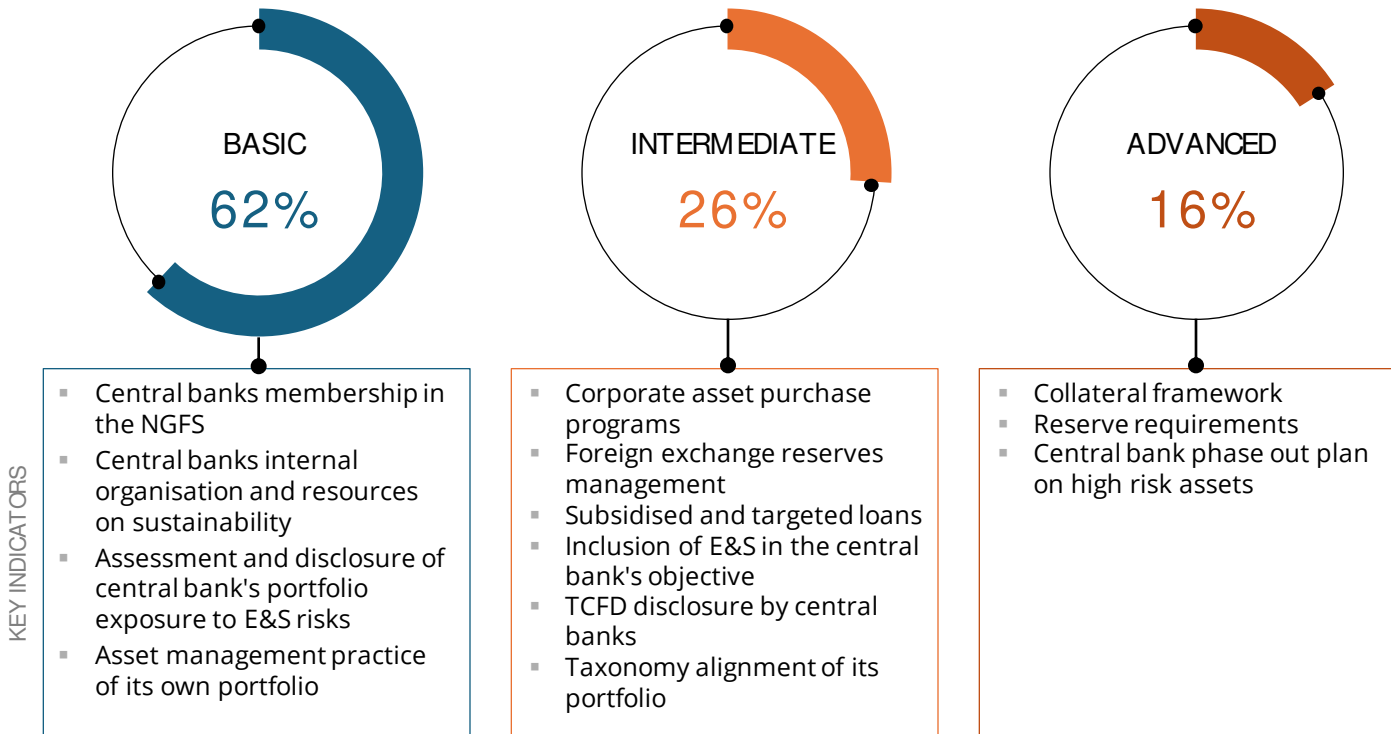


CENTRAL BANKING

SWEDEN

Advanced indicators were only 16% fulfilled, signifying limited progress in integrating climate and environmental risks into collateral frameworks, reserve requirements, and phase out plans on high-risk assets

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



Note: The number displayed in the graph represents the average score 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% score, while fully met criteria result in a 100% fulfilment.

- 62% of basic indicators are met by the countries assessed.
- However, on intermediate indicators, only a 26% achievement rate are observed.
- This demonstrates a lack of practices related to the integration into monetary policy tools,
- Additionally, there is limited progress in incorporating sustainability into central banks' mandates, adhering to TCFD disclosure requirements, and disclosing based on taxonomy.
- The level of fulfillment stands at a mere 16% for advanced indicators.

Sweden – Central Banking (2023)

Central banking		Gap & current practice	Recommendation	Good Practices
Central bank practices				
2.1	2.2			
Monetary Policy	Leadership & internal organisation			
Corporate asset purchase programs	NGFS membership	(2.2.6) Impact disclosure of own portfolio No disclosure on E&S yet	Central bank has assessed and discloses the result of the assessment of its portfolio exposure to E&S risks, covering all or at least a substantial portion of its total assets / portfolios (for its policy, own, pension and third-party portfolios as applicable). <i>Note: the information disclosed can be portfolio-level CO2 / GHG emissions (or intensity), exposure to climate-related physical and transition risks, exposure to biodiversity loss, exposure to deforestation and habitat/land conversion, and exposure to water-related risks, etc.</i>	The Banque de France (BdF) Responsible Investment Report 2022 features a dedicated section on biodiversity impact, introducing an aggregate measure of the biodiversity impact of BdF's equity and corporate bond portfolios under three indicators: total absolute biodiversity impact, biodiversity footprint, and weighted average biodiversity intensity.
Collateral framework	Nominal anchors			
Foreign exchange reserves	Central bank's transition plan	(2.2.8) Taxonomy alignment No disclosure based on taxonomy yet	<ul style="list-style-type: none"> Central banks to disclose the share of its own portfolio that is aligned with sustainable taxonomy. 	In their Responsible Investment Report, the Banque de France and Banca d'Italia publicly disclose their calculation on the share of activities in its equity and corporate bond components eligible for alignment with the EU taxonomy. The calculation involves estimating the average share of revenue for portfolio companies eligible for EU taxonomy alignment. This estimation is further adjusted by weighting it based on the respective percentage each company represents in total assets.
Subsidised & targeted loans	TCFD disclosure			
Reserve requirements	Internal organisation & resources			
	Portfolio exposure disclosure			
	Asset management			
	Taxonomy alignment			
	Phase out plan			
	Just transition			



TACK!

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