



# ESG & Climate Risk stress testing in Banking sector

**Webinar:**

**Thursday, 17 November 2022, 3:30pm to 4:30pm**

**KPMG in Thailand**



# Speakers



**Ganesan Kolandavelu**  
Partner, Climate Change  
and Sustainability  
KPMG in Thailand



**Dr. Clemens Wieck**  
Senior Manager, Financial  
Services, ESG Specialist  
KPMG in Germany



**Martin Klaas**  
Specialist, ESG Risk  
KPMG in Germany



**Amnat Ritdumrongkul**  
Director, Financial Risk  
Management Advisory  
KPMG in Thailand



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# Overview of ESG in Banking Sector



# Overview of ESG in Banking Sector

Banks are increasingly recognizing the breadth and depth of ESG within their own businesses and the impact they can have on society. Banks will be measured across all ESG metrics, but will have to prioritize different elements of ESG depending on their appetite and focus. Responsibility will be not just for their direct impact, but also for every part of their lending portfolio.



## Environmental

- Air and water pollution
- Sea level rise and drought
- Resource depletion
- Deforestation
- Land degradation
- Energy efficiency
- Reactions of legislator/regulator to promote sustainability or bans on unsustainable activities (e.g. CO2 tax)
- Structural changes in demand and supply for products, services and commodities



## Social

- Noncompliance with labour standards
- Inadequate payment of labour
- Human capital management (employee attraction, retention, training, education)
- Lack of assurance of industry safety standards and health protection for employees
- Product safety and liability
- Data protection and privacy
- Human rights



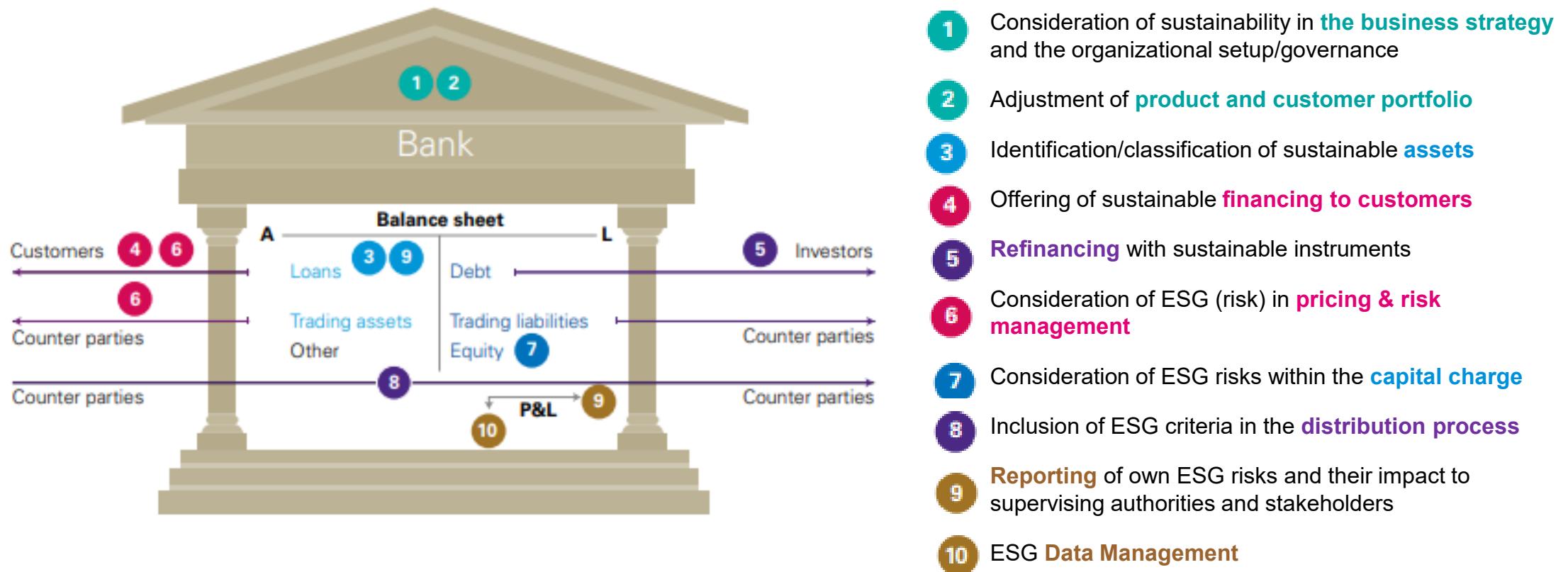
## Governance

- Board composition
- Compliance with regulatory standards
- Corruption or attempted bribery
- Executive remuneration
- Business ethics
- Risk management
- Lack of proper assurance of data protection
- Greenwashing risks

Source: ESG risk in Banks, KPMG International, May 2021.

# Key areas of the bank prone to ESG risks

ESG risks can affect the banks' P&L and liquidity issue where ESG risks can affect the bank directly (e.g. storm damage to bank buildings), but also affect customers (change in sales opportunities, production disruptions, etc.) leading to, for example, higher loan defaults.



Source: ESG risk in Banks, KPMG International

# The challenges of the Banks to deal with ESG

Despite several challenges for the banks to deal with ESG, there are a wide range of opportunities associated with ESG such as new financing markets in the process, new products, sustainable investments and better risk management.

Issues	Summary observations	Opportunities
<b>Lack of understanding of what ESG means</b>	<ul style="list-style-type: none"><li>— Multiple ESG taxonomy, definitions and reporting criteria complicate understanding and priority of ESG matters.</li><li>— ESG responsibilities are becoming clearer and they require funders/lenders to consider material non-financial i.e. ESG factors; however, there is still a lack of understanding of what these non-financial factors are and how to define materiality.</li></ul>	<ul style="list-style-type: none"><li>— More regulatory bodies and standard setters are working towards the common global definitions, corporate reporting standards and metrics.</li><li>— On November 3rd 2021 the IFRS Foundation announced that it would form a new International Sustainability Standards Board (ISSB), as well as the consolidation of the Climate Disclosure Standards Board into IFRS Foundation.</li></ul>
<b>Concerned ESG will lower returns / portfolio performance</b>	<ul style="list-style-type: none"><li>— Many firms believe that their lending opportunities will be reduced if they follow an ESG strategy as exposure to non-ESG companies is reduced and new non-ESG opportunities are screened out.</li></ul>	<ul style="list-style-type: none"><li>— There is a huge new lending opportunities and products to finance the ESG transition when traditional business lines have limited room for expansion and fierce competition.</li></ul>
<b>Uncertain how to implement ESG practices</b>	<ul style="list-style-type: none"><li>— There are many challenges from the ESG data required to measure the current state and progress towards a firms goals through to the practical implementation of ESG policies throughout the lending process.</li></ul>	<ul style="list-style-type: none"><li>— Numerous ESG standards, framework and principles can help you get started to implement ESG practices and roadmap aligned with Bank's long term strategy and goals.</li></ul>
<b>Lack of risk management/ oversight capabilities</b>	<ul style="list-style-type: none"><li>— Uncertainty exists as to how to identify long term ESG risks and how to measure and monitor them.</li></ul>	<ul style="list-style-type: none"><li>— Financials institutions can prevent themselves from ESG risk by embedding ESG assessment in every stage of risk management framework.</li></ul>
<b>Assurance and reporting</b>	<ul style="list-style-type: none"><li>— Stakeholders will look for assurance over ESG reporting to provide certainty and to mitigate the risk of greenwashing</li><li>— Increasing regulatory to disclose the ESG information as material non-financial, coupled with financial information.</li></ul>	<ul style="list-style-type: none"><li>— Public reporting and disclosure on ESG practices will increasingly be defined and aligned to global norms.</li><li>— Transparent and accurate reporting of ESG data/metrics will help the investor make informed decision to invest in sustainable and responsible business.</li></ul>

Source: Transitioning to a Green Economy , KPMG playbook April 2022



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# TCFD recommendations on more effective climate-related disclosures



## Governance

Disclose governance around climate-related risks and opportunities



### Recommended Disclosures:

- Board's oversight of climate-related risks and opportunities
- Management's role in assessing and managing risks and opportunities



## Strategy

Disclose the actual and potential impacts of climate risks and opportunities on your business



### Recommended Disclosures:

- Risks and opportunities identified in the short, medium, and long term
- Actual and potential impacts on the business, strategy, and financial planning
- Scenario analysis of impacts including a 2°C scenario



## Risk management

Disclose how you identify, assess, and manage climate-related risks



### Recommended Disclosures:

- Processes for identifying, assessing and managing climate-related risks
- Integration of climate-related risk into overall risk management



## Metrics and targets

Disclose the metrics and targets used to assess and manage climate risks and opportunities

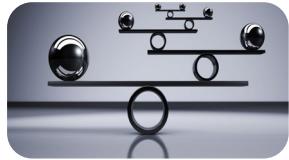


### Recommended Disclosures:

- Metrics used to assess climate-related risks and opportunities
- All GHG emissions (Scopes 1,2 and 3) and related risks
- Targets and performance against those targets

Source: Climate disclosure of the Bank in 2020 – KPMG Global Banking Forum (Jun 2021)

# The TCFD supplemental recommendations for banks



## Governance

The organization's governance around climate-related risks and opportunities

No supplemental guidance for banks

Besides these 4 themes, TCFD also recommends the approach for scenario analysis to assess impact of climate-related risks, which the entities should use a 2°C or lower scenario in addition to two or three other ones that most relevant.



## Strategy

The actual and potential impacts of climate-related risks and opportunities on the business, strategy and financial planning.

1. Significant concentrations of credit exposures to carbon-related assets;
2. Disclosing climate-related risks (transition and physical) in lending and other financial intermediary business activities



## Risk Management

How to identify, assess, and manage climate-related risks.

1. Characterizing climate-related risks in the context of traditional banking industry risks (i.e. credit, market, liquidity and operational risks)
2. Describing any risk classification framework used.



## Metrics and Targets

The metrics and targets used to assess and manage relevant climate-related risks and opportunities.

1. Provide the metrics used to assess impact of climate-related risks on lending and other financial business activities (credit exposure, equity and debt holdings, or trading positions) broken down by:
  - Industry;
  - Geography;
  - Credit quality (e.g. investments or non-investment grade, internal rating system)
  - Average tenor.
2. Provide amount and percentage of carbon-related assets relative to total assets,

Provide amount of lending and other financing connected with climate-related opportunities

# Climate risk is financial risk - For banks it's a board-level issue

Today's bank boards are addressing climate change right at the top of their organizations, with more empowering their CEOs to take direct responsibility and including climate strategy targets in reward structures.

KPMG conducted the survey on 25 major global banks' disclosures on climate risk in the most recent financial reports show how climate change is becoming embedded in their business strategies. Of the banks that KPMG reviewed,

## Financial risk

72% of banks disclosing climate risk as financial risk which will impact their business in the longer term



## Material or principle risk

68% of banks disclosing climate risk as material or principle risk



## Changes to risk assessment

20% of banks disclosing an increase in their risk assessment for climate risk



Of the 25 banks reviewed, **80% of the banks identified and disclosed metrics and targets** which are directly linked to achieving their climate strategy. **Common metrics and targets** disclosed by banks are as follow;

### Sustainable financing



- 72% of banks disclosed metrics and targets related to sustainable financing in their 2020 Annual Financial Reports. Sustainable financing refers to funding committed to projects, businesses and products that provide environmental benefits.

### Operational emissions:



- Banks are also targeting to make their operational emissions net zero by 2030 (or earlier) with 68% of banks disclosing metrics and targets around carbon emissions and 56% around energy emissions.

### (a) Carbon emissions



- 60% of banks disclosed set targets to reduce financed emissions. Financed emissions are absolute green house gas (GHG) emissions that banks finance through their lending and investment activity with 24% of banks providing quantitative details of financed emissions.

### Financed emissions



- Some of the banks have committed to reducing their financing to sectors such as power, energy and oil and gas, and a number of the banks (44%) have committed to a full phase-out of lending to specific carbon intensive sectors such as thermal coal.

### Quantitative disclosures on financed emissions:



- As there is currently no universally accepted framework or methodology for identifying and calculating climate-related metrics and targets, there is diversity in the scope of such metrics.

### Thermal coal:



Source: Climate disclosures within the Annual Financial Reports of Banks (Phase 1) by KPMG, April 2021.

Note: 1 The 25 banks selected for KPMG's benchmarking analysis consist of 5 major banks in the UK, 5 banks in Europe, 4 banks in Australia, 5 banks in Canada and 6 banks in the US through 2020 Annual Financial Reports to shareholders (online glossy version).

# Directional on Climate Risk in Thailand



# Climate Risks



**Climate change is deemed as the gravest threat** to humanity and as the risk with potential to inflict the most damage at a global scale over the next decades.



**Companies face climate-related financial risks** due to the effects of climate change (physical risks) and transition towards a net-zero economy (transition risks).



**Challenges exist to traditional risk management** owing to distinct nature of climate risks such as long time horizons, high uncertainty about policy and socio-economic factors, and heterogeneity.



**Scenario analysis (stress testing) along with climate-risk disclosures under TCFD** are key to overcome these challenges and to effective climate risk measurement and management.

**1.4 TB**

in damage of Thailand's worst ever flooding in 2011

**5%**

of global GDP impact can be realised if temperature were to be limited at 2°C

**100%**

of 50+ major banks in 2020 across EU, UK, US follow TCFD's recommendations

**121**

supervisors & central banks across the world have joined NGFS in 2021

# Global Initiatives around Climate Risks

2018 – 2019		2020		2021		2022 – 2025	
Mar 18 EC Sustainable Finance Action Plan	Mar 19 CFRF established	Feb 20 BCBS establishes TFCR	Oct 20 Bank of Spain – Climate related risks expectations	Jan 21 ECB launches climate risk centre	Sep 21 CBES first submissions	End of 21 – 22 FS-TCFD Guidance on Metrics, Targets, and Transition Plans	1st Half - 22 Deadline for all listed issuers and large asset owners to disclose in line with TCFD
Sept 18 TCFD status report published	Apr 19 NGFS Call for Action on climate risk	Apr 20 BCBS/TFCR stocktake report	Nov 20 EBA launches consultation to incorporate ESG risks	Feb 21 Banks required to report their alignment with ECB supervisory expectations	Oct 21 CBES first submissions due	22 onwards PRA assessment of alignment with SS3/19 as part of supervisory cycle	By end of 22 Primary legislation for SDR
Oct 18 Energy transition risk stress test for the financial system of the Netherlands - results published	Apr 19 PRA supervisory statement on climate-related financial risks	Jun 20 CFRF industry guide	Jul 20 Taxonomy Regulation into force	Mar 21 EBA consultation on draft technical standards on Pillar 3 disclosures of ESG risks	Oct 21 UK gov. published Greening Finance - Roadmap to Sustainable Investing - includes new Sustainability Disclosure Requirements	Jan 22 Taxonomy disclosures required	22 & 23 Additional disclosures under SDR for asset managers and owners, investment firms, banks, insurers and certain listed issuers
	Sep 19 UN Principles for Responsible Banking		Jul 20 ACPR climate pilot exercise starts	Mar 21 Sustainable Finance Disclosures Regulation in effect	Mar 21 EBA Opinion on the disclosure requirement on environmentally sustainable activities in accordance with the Taxonomy Regulation	Mar 22 2022 ECB climate risk stress test starts	Jan 23 Taxonomy disclosure of remaining four environmental objectives
	Dec 19 EBA Action Plan on Sustainable Finance		Oct 20 The Federal Reserve joins NGFS	May 21-22 EBA Action Plan - develop dedicated climate risk stress tests for banks	Oct 21 Methodology published on the 2022 climate risk stress test	During 22 ECB to assess banks' integration of climate risks	Q1 23 Consultation on remaining 4 objectives under UK Green Taxonomy
	Dec 19 BaFin guidance Notice on dealing with sustainability risks			May 21 Banks required to send to the ECB their roadmap to implement supervisory expectations	Oct 21 - Nov 21 COP26	1st Half - 22 CBES results	By Jun 25 EBA Discussion Paper and Report on classification and prudential treatment of assets (sustainability criteria)
		Oct 20 Bank of Spain - Stress Testing of climate-related risks announcement		Jun 21 Application date of the guidelines on loan origination and monitoring	Dec 21 PRA SS3/19 firms to embed approach to climate risk	1st Half - 22 First on-site inspections related to environmental risks	Q1 22 Consultation on first 2 environmental objectives under UK Green Taxonomy
					End of 21 SDR discussion papers on sustainable investment labelling and product level Green Taxonomy alignment		
 <p>Major regulators around the globe are starting to make ESG considerations mandatory.</p>		 <p>It's only a matter of time for Thai regulators to follow suit.</p>		<p>EU    UK    Global</p>			

# Risk Management Is Key Part of ECB's "13 Expectations"

## Strategy & Organization

- 1 Understand the impact of climate-related and environmental risks on the **business environment** to make informed strategic and business decisions.
- 2 Integrate climate-related and environmental risks into the **business strategy**
- 3 Responsibility of the **management body** for the integration and oversight of climate-related and environmental risks
- 4 Explicitly include climate-related and environmental risks in their **risk appetite** framework
- 5 Assign responsibility for the management of climate-related and environmental risks within the **organizational structure** in line with the 3LoD

## Overarching Risk Management & Framework

- 7 Incorporate climate-related and environmental risks as drivers of established risk categories into their existing **risk management framework**
- 11 **Scenario analysis & stress testing:** Evaluate appropriateness and incorporate climate-related and environmental risks into baseline and adverse scenarios



## Internal and External Reporting

- 6 Reflect their exposures to climate-related and environmental risks in the internal **reporting** to management
- 13 **Disclosure policies & procedures:** Publish meaningful information and key metrics on climate-related and environmental risks

## Risk Type Specific Expectations

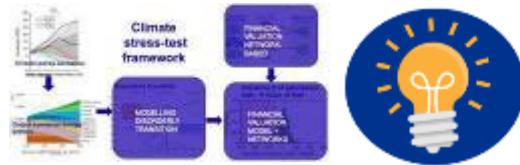
- 8 **Credit risk:** Consider climate-related and environmental risks at all stages of the credit-granting process and in monitoring portfolios
- 9 **Operational risk:** Consider the adverse impact of climate-related events on business continuity and on reputational and/or liability risks.
- 10 **Market risk:** Monitor the effect of climate-related and environmental factors and develop related stress testing scenarios
- 12 **Liquidity risk:** Incorporate climate-related and environmental risk factors into liquidity risk management and liquidity buffer calibration.



The ECB expects banks to consider climate-and environment-related risks in their risk management. Climate stress test can address this expectation.

Source: Guide on climate-related and environmental risks: Supervisory expectations relating to risk management and disclosure, ECB, Nov 2020.

# Global Practices of Climate Stress Testing



## Details of Climate Stress Test Exercises

Member	Expected End Date	Approach	Risk Coverage	Time Horizon
Banque de France	Concluded	Bottom-up	Physical, Transition	30 years
Australian Prudential Regulation Authority	Early 2022 Now finished	Bottom-up, Top-down	Counterparty, Macroeconomic	30 years
Banca d'Italia	Concluded	Micro-founded	Transition	0 years
Bank of England	May 2022 Now finished	Bottom-up	Physical, Transition	30, 60 years
De Nederlandsche Bank (Netherlands)	Q4 2021 Now finished	Top-down	Counterparty	1, 10 years
European Banking Authority	Concluded	Top-down	Physical, Transition	30 years
European Central Bank	Concluded	Top-down	Physical, Transition	30 years
Hong Kong Monetary Authority	Dec 2021 Now finished	Bottom-up	Physical, Transition	5-30 years
Bank of Japan	Jun 2022 Now finished	Bottom-up	Physical, Transition	30, 80 years
Monetary Authority of Singapore	H2 2022 Dec-22	Bottom-up	Physical, Transition	30 years

# Commitments from the Bank of Thailand

In response to the COP26, Bank of Thailand is committed to:

1. Set common policy direction for the financial sector



Sustainable Finance Initiatives for Thailand, Aug-2021

(1) Develop a practical taxonomy

Green Taxonomy

ASEAN Taxonomy

(2) Improve the data environment

(3) Implement effective incentives

(4) Create D-led products & services

(5) Build human capital

2. Incorporating environmental factors into our supervisory framework

The BOT will issue good practices for sustainable banking in 2022 to set a supervisory expectation on sustainability performances especially climate-related and environmental issues for the banking industry.

3. Integrate environmental impacts into financial stability and macro assessment

The BOT has included ESG risks as part of the **revised Guideline on Application of the Supervisory Review Process under Pillar 2 of the Basel capital framework**, which will come into **effect in 2022**. Going forward, the BOT will enhance the evaluation of banks' exposure to climate-related risks through **scenario analysis and stress testing** and will incorporate environmental factors into our macroeconomic models and analysis to assess the impact of such risks .

4. Strengthen collaboration with international stakeholders

The BOT will further leverage on **recommended best practices from The Network for Greening the Financial System (NGFS) and Task Force on Climate-Related Financial Disclosures (TCFD)** to strengthen our role in promoting green financing as well as environment and climate risk management.



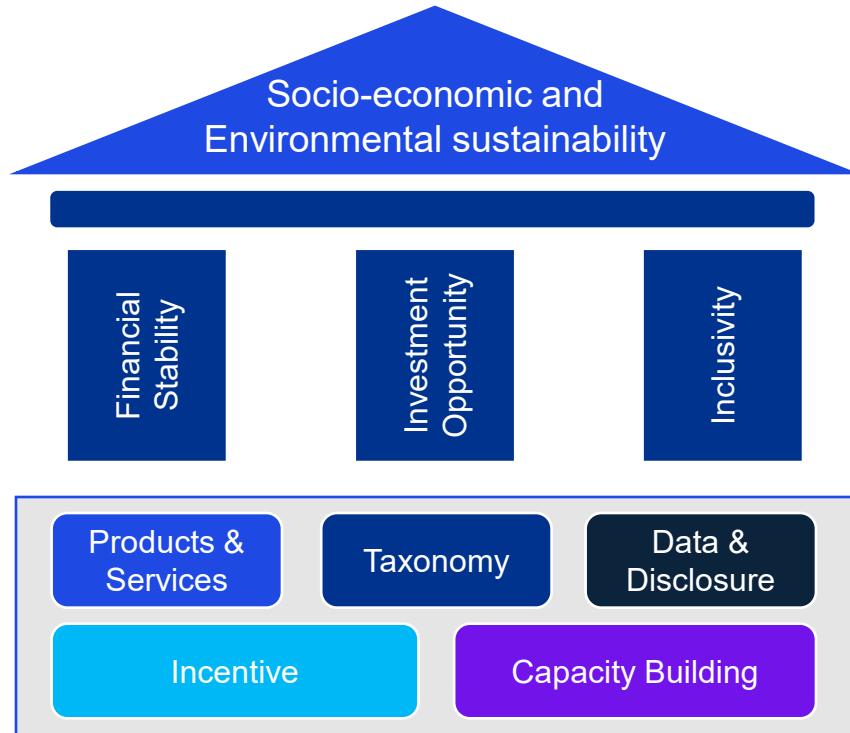
The Bank of Thailand's sustainability commitment in support of the NGFS Glasgow Declaration

"Banks will need to increasingly incorporate sustainability considerations into their lending decisions and increasingly need to improve disclosure on climate-related information and their risk assessment tools."

**Sethaput Suthiwartnarueput**, Governor of the Bank of Thailand (Sep 2021)



# BOT's Determination to Addressing Climate Risks



BOT Directional Paper on  
“Transitioning towards  
Environmental Sustainability  
under the New Thai Financial  
Landscape”  
Aug 2022



The BOT has laid out **5 building blocks** to prepare FIs for the imminent impacts from climate change.

Under the 1<sup>st</sup> block (product & services), the BOT expects FIs to be able to assess the impacts from climate risks via **scenario analysis and stress testing** and incorporate climate risks into every day-to-day business process and ICAAP.

The climate scenario analysis and stress testing will be a **pilot exercise** for the **large FIs within end of 2023** and for all **commercial banks within 2024**.

## Product & Services

- BOT will launch **industry handbook in 2023**.
- Conduct climate stress testing and incorporate climate risks into end-to-end business

## Data & Disclosure

- BOT expects FIs to align their report with TCFD/BCBS/ISSB and **mandate D-SIB FIs in 2024 and other FIs in 2025**.
- Co-op with MNRE/ME/MOT and private org. to build Big Data (Green Data Ecosystem).

## Capacity Building

- BOT will develop workshops to train FIs about climate disclosure and scenario analysis.
- BOT expects FIs to have sufficient personnel to effectively assess climate risks.

## Taxonomy

- Establish principle-based taxonomy around climate change in line with ASEAN Taxonomy.
- Co-op with TGO and SEC staff to respond to identify transparent indicators under Thailand Taxonomy.

## Incentive

- During the transition, BOT support SMEs to transit to sustainable economy.
- In long term, BOT will impose stricter regulation to enforce companies to address climate risks.

# Insights into Climate Risk Stress Testing Model



# ESG risks have potentially severe impacts on banks

Focus today

## Environmental risks

### Examples:

- Supply chain collapse, sea level rise, droughts (**Physical risks**)
- Loss of basis for business model due to pricing of fossil fuels or electric vehicles (**Transitional Risks**)



Climate Risk is only one form of ESG risk. Although currently considered as the most urgent, EBA and most national banking supervisors (e.g. Germany's BaFin) deliberately speak of "sustainability", thereby including all ESG risk types.



## Social risks

### Examples:

- Noncompliance with labour standards
- Inadequate payment of labour
- Lack of industrial safety standards and health protection for employees
- Lack of product safety

## Governance risks

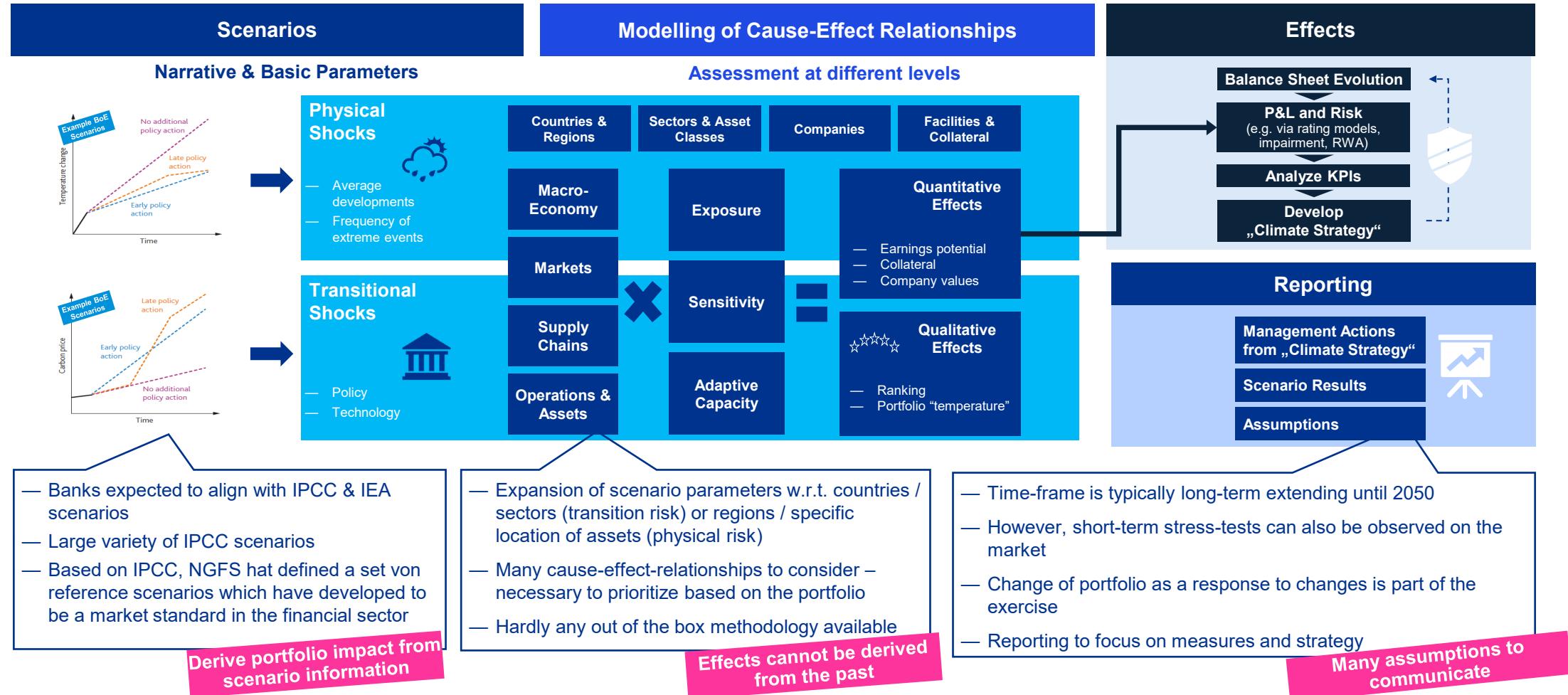
### Examples:

- Noncompliance with tax law
- Corruption or attempted bribery
- Inappropriate senior management compensation
- Lack of proper data protection



ESG risks drivers can have negative impacts on assets, the financial and earnings situation, or reputation of businesses and therefore have to be considered material. It is therefore crucial for banks to fully understand the impact of ESG risks and fully integrate them into their risk management system using dedicated methodologies and tools.

# Challenges in all element of Climate Risk Stress Testing





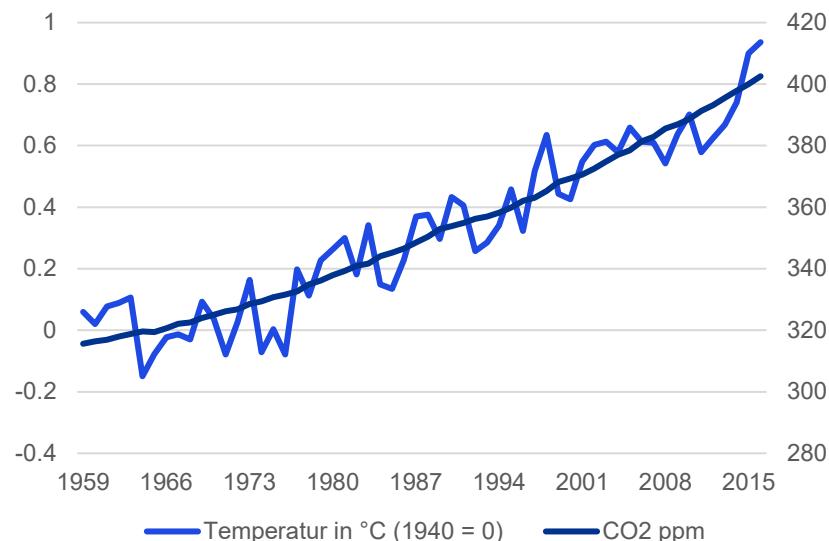
# Physical Risks Become Increasingly Relevant

Natural disasters especially severe nowadays



As climate conditions change, severity and frequency of physical risk events will further increase

Historical Relationship: Temperature and CO2



Effective management of physical risks becomes crucial for financial institutions – especially if climate conditions follow an adverse path

# Natural Hazards have significant financial impacts on businesses and properties – even if insured

After a natural disaster, property values instantly decrease.



“

*[In the immediate aftermath of Buffalo Creek wildfire in 2004,] the house price drop in the unburned [nearby] community was about 15%.*

*(Loomis, 2004)*

”

After a severe natural disaster, regional housing markets often break down. Property prices fall significantly, even for insured properties.

Natural hazard insurance premia are expected to rise.



“

*Climate risks to add \$183bn to property insurance costs by 2040, Swiss Re predicts.*

*(Financial Times, September 6<sup>th</sup>, 2021)*

”

Climate change has a significant effect on the severity and frequency of natural disasters like flooding, wildfires, cyclones etc. This means, many property owners will face rising insurance costs if they are exposed to those hazards.

Natural disasters will impact more and more supply chains.



“

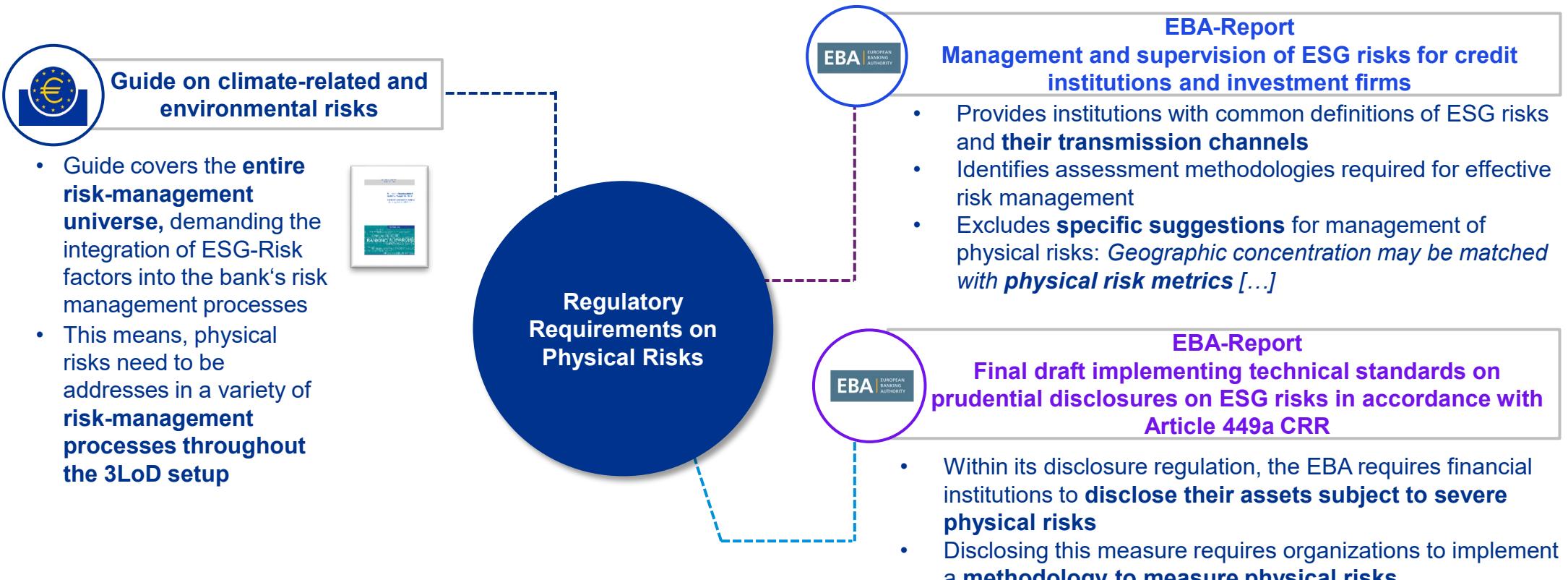
*The probability of a hurricane of sufficient intensity to disrupt semiconductor supply chains may grow two to four times by 2040.*

*(McKinsey, August 6<sup>th</sup>, 2020)*

”

Even if the business itself is insured against natural hazards, a natural disaster impacting its supply chain is still a viable risk.

# European perspective: Regulators' views on Physical Risks



Regulators have recognized the importance of physical risks and urge financial institutions to improve their data and methods

# KPMG has developed three prototypes to address Physical Risk Management



## Comments

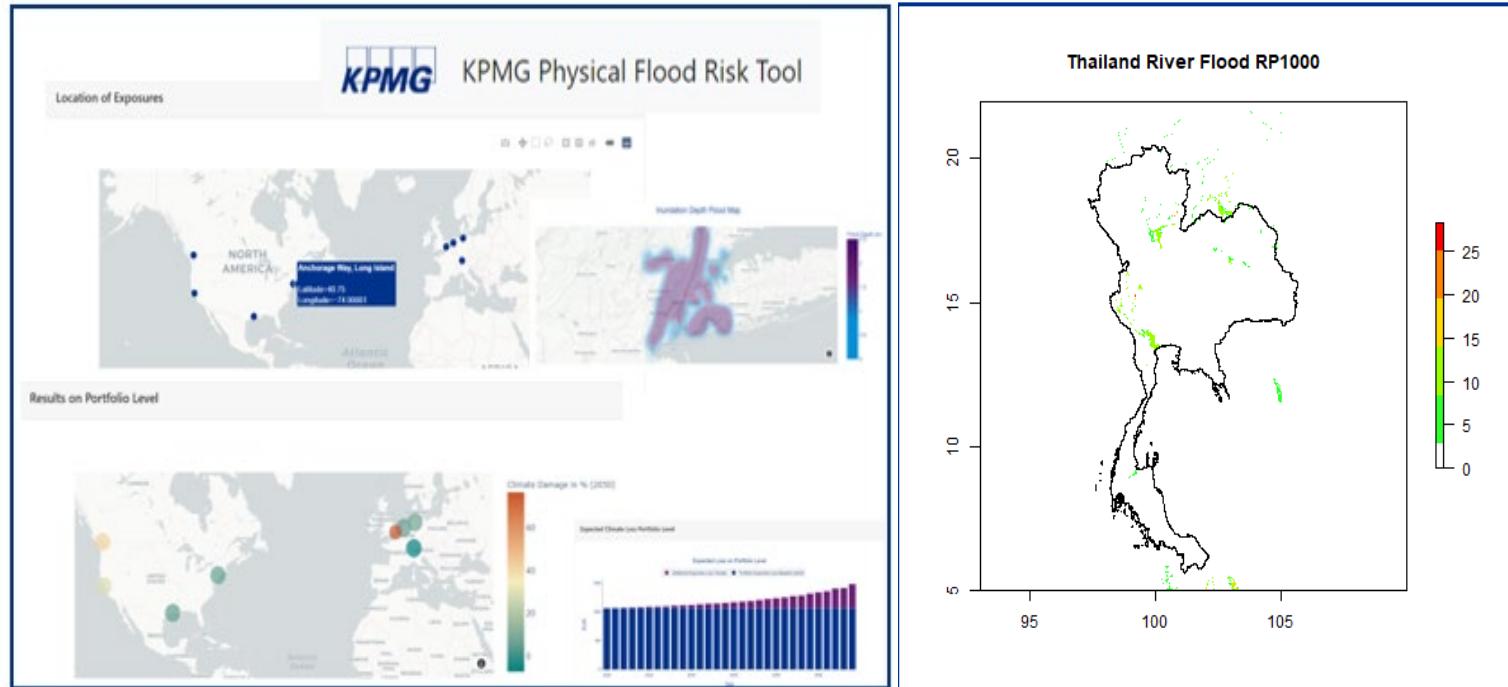
- KPMG's natural hazard scores is a broader tool which covers **many different physical risk drivers**
- KPMG's flood and wildfire risk prototypes **are more focused and very similar** in methodology, use cases and output variables

# Flood Risk Prototype



## KPMG's Flood Risk Prototype

- ✓ Works as-is for **real estate assets**, can be expanded for business interruptions
- ✓ Derives **yearly expected flood damages** for real estate assets for the present and for the future
- ✓ As an end-result, **real estate assets are revalued** based on the changes in risk profile



Main Use Cases

Stress testing

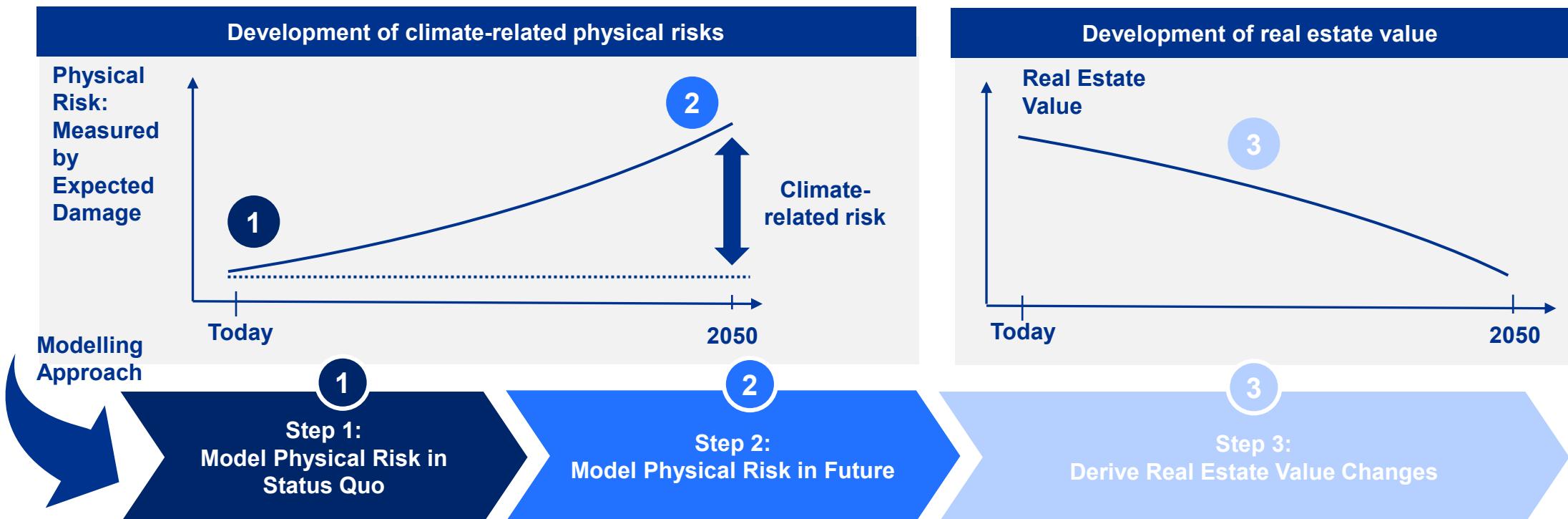
Credit Scoring

Conduct scenario-stress tests to understand how climate change **will impact your real-estate portfolio**

Integrate results into the credit-process to **reflect long-term flood risks**



# Overview of the Modeling Approach – What does Climate do?



## Comments

 The approach focuses on analyzing long-term changes in the risk exposure regarding physical hazards. In other words, the focus is not on instantaneous damage from natural disasters, but on understanding the long-term changes in expected damage for given locations; an “expected-value” of damages from natural disasters is considered.



# Deep Dive: Methodology of the Flood Risk Prototype

1

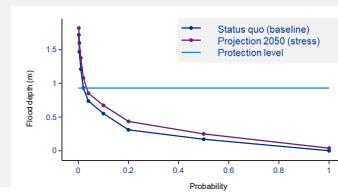
Frequency and severity of events

- Evaluation of **public flood maps** (e.g. 10-, 100-, 200-year event) from the World Resources Institute
- Translation into **risk distributions** (frequency and severity)
- Consideration of current **level of protection** (e.g. levees for 100-year event)

Flood map for the 250-year event of a river flood in 2050



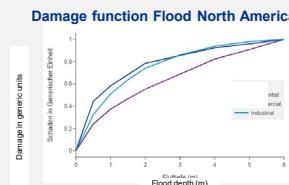
Site-specific flood distribution Status Quo and scenario projection 2050 Stress



2

Damage function

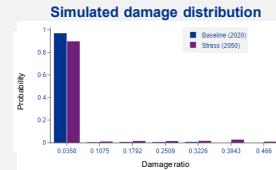
- Translation of flood depth **into damage to the object** via damage function (source: Huizinga et. al., 2017)
- Scaling of the damage function based on historically observed damage (residual value of the object at maximum damage)



3

Expected annual loss

- **Simulation of the damage distribution** from flood distribution and damage function via Monte Carlo method
- Calculation of the **expected** value for the **annual damage**



Expected annual damage 2050 projection (stress)  
Status quo expected annual loss (baseline)

4

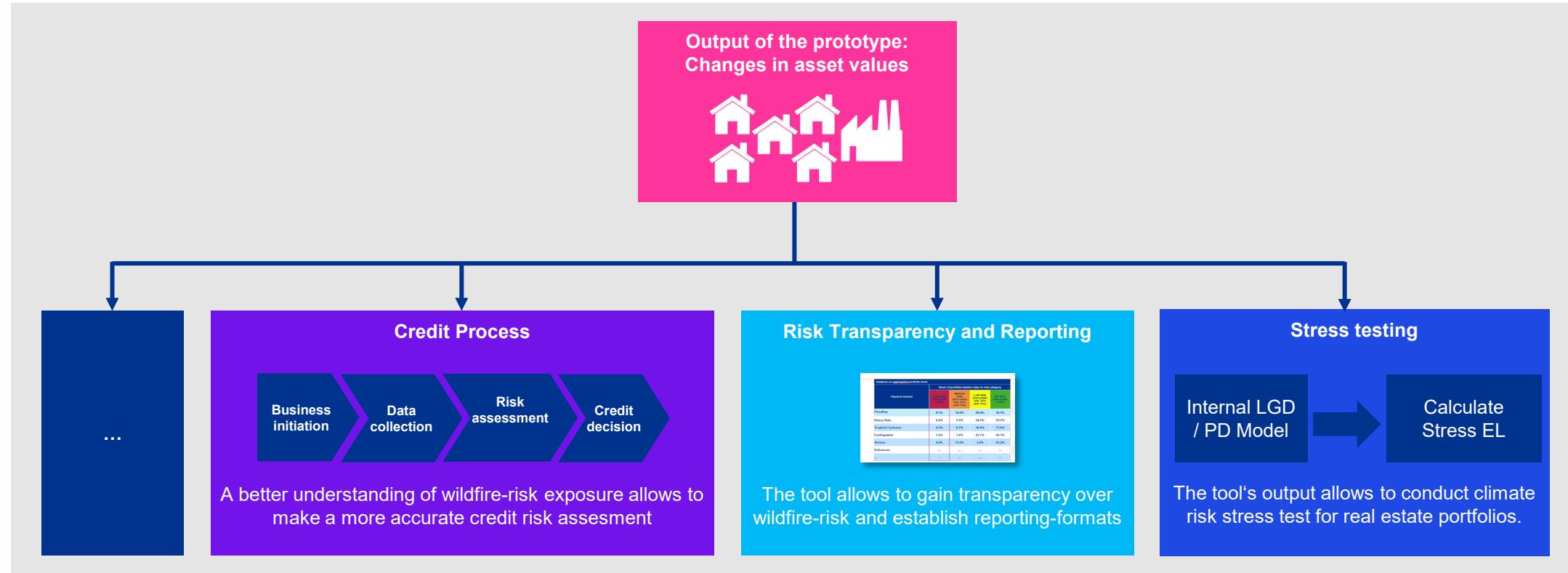
Financial Impact

- Change in **expected losses** has direct effect or via **higher insurance costs** – property assumed to remain insurable
- Reduction of **net operating income** (NOI) and **value discount** on **real estate** (approximated via multiple)



# Integration of Results in the Bank's Processes

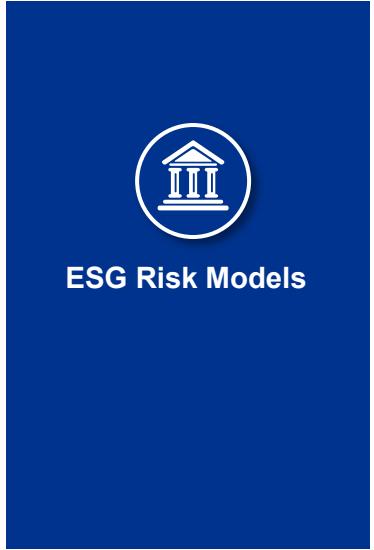
The approach can be used as a central tool to quantify flood-related risks. The output of the prototype is to be integrated in a variety of processes.



**The prototype's output can be integrated into many processes inside the bank to identify, measure, and manage risks arising from exposure to flooding.**

# Live Demo

# Deep Dive: ESG-Risk Models and Framework



*Today*

**KPMG Flood Risk Prototype**

Understand scenario based flooding damages

**KPMG Wildfire Risk Prototype**

Understand scenario based wildfire damages

**KPMG Natural Hazard Scores**

Get physical hazard scores for 11 different natural hazards

**KPMG Carbon Stress Test Tool**

Conduct stress tests based on different carbon-price scenarios



**KPMG TOM for ESG Risk-Management**

Fully integrate ESG into risk management

**Talkbook for ESG-Risk Management**

Talkbook as a summary of KPMG's offerings around ESG risk management

**Benchmark Survey**

Benchmark survey with 32 banks on their status quo ESG risk management

Many more customizable ESG prototypes are available e.g. Biodiversity – if you have an ESG problem we are probably on the case!

# Our Credentials – KPMG EU

<p><b>KPMG</b></p> <p><b>European development bank</b></p> <p>Climate risk stress testing implementation, focusing on CO2 emission scenario analysis</p> <p>2020/2021</p>	<p><b>KPMG</b></p> <p><b>German commercial bank</b></p> <p>Design and implementation of ESG Risk Management Framework, in-depth analysis of Oil &amp; Gas clients</p> <p>2020/2021</p>	<p><b>KPMG</b></p> <p><b>German Landesbank</b></p> <p>Climate risk assessment and preparations for stress testing (Gap analysis, Road map)</p> <p>2020/2021</p>	<p><b>KPMG</b></p> <p><b>Greek universal bank</b></p> <p>ESG Risk integration, Focus ECB questionnaire on ESG (Gap analysis, Road map)</p> <p>2021</p>	<p><b>KPMG</b></p> <p><b>German Landesbank</b></p> <p>Introduction of a framework for ESG-data</p> <p>2022</p>	<p><b>KPMG</b></p> <p><b>German Landesbank</b></p> <p>Establishment of an ESG risk credit decision framework</p> <p>2022</p>	<p><b>KPMG</b></p> <p><b>German Landesbank</b></p> <p>Establishment of an ESG-risk inventory process</p> <p>2022</p>
<p><b>KPMG</b></p> <p><b>Development bank</b></p> <p>Detailed gap analysis wrt. all relevant regulatory requirements in ESG area and determination of ESG-TOM</p> <p>2022</p>	<p><b>KPMG</b></p> <p><b>Various banks</b></p> <p>(Educational) Sustainable Finance Workshops</p> <p>2020-2022</p>	<p><b>KPMG</b></p> <p><b>Italian D-SIFI</b></p> <p>ESG impact on the credit monitoring process</p> <p>2020/2021</p>	<p><b>KPMG</b></p> <p><b>Italian D-SIFI</b></p> <p>Supporting Risk Management in assessing the impacts of ESG</p> <p>2020/2021</p>	<p><b>KPMG</b></p> <p><b>Large UK Bank</b></p> <p>Review of ESG Reporting and TCFD Disclosures including benchmarking insights</p>	<p><b>KPMG</b></p> <p><b>Large UK bank</b></p> <p>Supporting Group Internal Audit</p> <p>Review of Climate Risks</p>	<p><b>KPMG</b></p> <p><b>German bank</b></p> <p>Development of a sustainability classification</p> <p>2020/2021</p>

# Q & A

# Feedback



# Thank you

## Contact



**Ganesan Kolandavelu**  
Partner, Climate Change and  
Sustainability  
KPMG in Thailand  
Email: [ganesan@kpmg.co.th](mailto:ganesan@kpmg.co.th)



**Martin Klaas**  
Specialist, ESG Risk  
KPMG in Germany  
Email: [mklaas@kpmg.com](mailto:mklaas@kpmg.com)



**Dr. Clemens Wieck**  
Senior Manager, Financial  
Services, ESG Specialist  
KPMG in Germany  
Email: [cwieck@kpmg.com](mailto:cwieck@kpmg.com)



**Amnat Ritdumrongkul**  
Director, Financial Risk  
Management Advisory  
KPMG in Thailand  
Email: [amnat@kpmg.co.th](mailto:amnat@kpmg.co.th)



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