

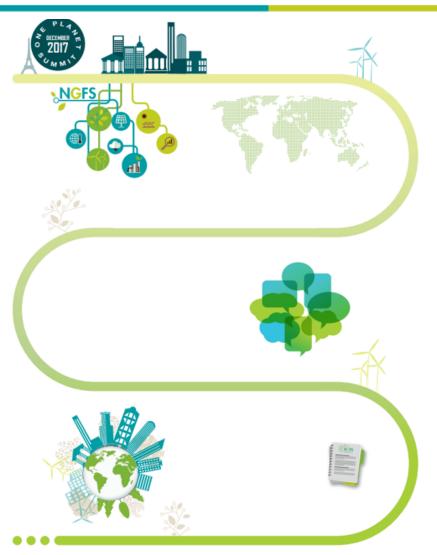
# Assessing nature-related risks: the NGFS work and perspective

MNB-OECD-EC Launch Event: Technical implementation of the Supervisory Framework for Assessing Nature-related Financial Risks to the Hungarian financial sector

7 June 2024

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# The Network for Greening the Financial System



- Established by 8 Central banks and Supervisors during the Paris Dec. 2017 One Planet Summit
- As of March 2024: more than 150 members / observers, covering 5 continents
- Coalition of the willing. Not a Standard Setting Body
- NGFS members' jurisdictions cover:
  - Supervision of 100% of the global systemically important banks and 80% of the internationally active insurance groups;
  - More than 85% of global greenhouse gas emissions.

# 1. The NGFS Task force on biodiversity loss and nature-related risks

Objective: Help mainstream the consideration of nature-related risks across the NGFS, together with climate-related risks.

#### The way to achieve this objective:

- Act as an incubator that explores, develops, and harmonises nature-related considerations and efforts
- **Explore the interconnections, similarities and differences between nature-related and climate-related risks.**
- Leverage the significant amount of work done and collaborate with NGFS workstreams, networks and members, and relevant external stakeholders (e.g. TNFD, G7...).

#### **Key publications in 2023**

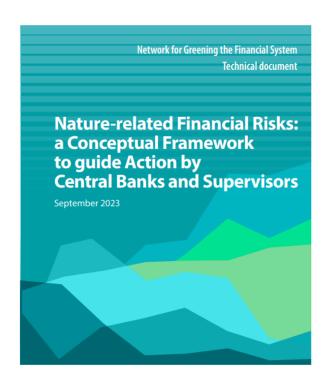
Conceptual Framework on nature-related risks that central banks and supervisors can utilise to develop policies and actions on nature-related issues

A **Technical Document** providing specific recommendations towards the development of nature-related scenarios

# 2. The NGFS Conceptual Framework on nature-related financial risks

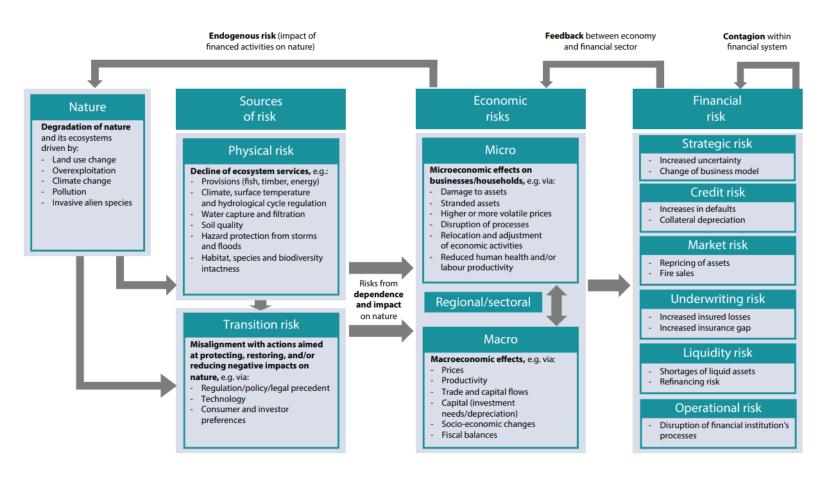
## **Overview**

- A common science-based understanding of, and language for nature-related financial risks
- Aligned and complementary approach to the technical guidance focus of the OECD Supervisory Framework on nature
- Adopts an integrated approach, meaning that climate-related financial risks are within scope
- Includes a principle-based risk assessment framework
- Released as beta version to be refined and supplemented over time





# 2. Understanding nature-related risks: transmission channels



Source: Adapted from Svartzman, R. et al. (2021) A "Silent Spring" for the Financial System? Exploring Biodiversity-Related Financial Risks in France.

# 2. Principle-based risk assessment framework

- Seeks to operationalise the understanding of nature-related financial risk
- Provides flexibility for:
  - emerging analytical methodologies and risk management practices
  - differences between jurisdictions
- Contains guiding questions to capture key elements that central banks and supervisors could consider

#### Phase 1:

Identify sources of physical and transition risk



#### Phase 2:

Assess economic risks



#### Phase 3:

Assess risk to, from and within the financial system

- i. Initial exposure analyses
- ii. Forward-looking tools
- iii. Local and systemic dimensions
- iv. Climate-nature nexus

- Direct and indirect economic effects (relevance of value chains)
- ii. Micro level and macro level effects, including interactions between them
- iii. The relevance of substitutability

- i. Traditional financial risk categories
- ii. Contagion
- iii. Endogenous risk

## 3. The NGFS Technical document on nature scenarios - Overview

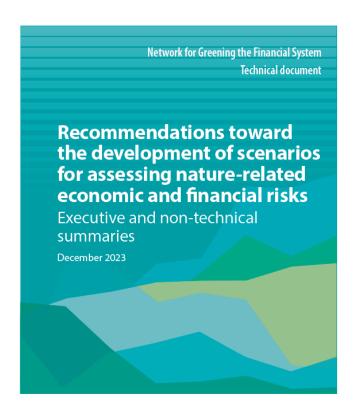
Provides recommendations towards the development of naturerelated scenarios, seeking as much synergy as possible with the NGFS climate scenarios while accounting for the specific features related to nature loss

#### Two main objectives:

- Suggest avenues to develop consistent narratives for physical and transition hazards
- Assess the ability of different methodologies, models, and tools to account for nature-related risks

#### Main challenges identified :

- Complexity of ecosystem functions and processes at stake
- No single metric (e.g. akin to CO<sub>2</sub>) or policy/measure (e.g. pricing natural capital)
- Existence of a local-global tradeoff
- Modelling exercises need to reflect transmission channels through which a specific nature-related hazard can propagate in the economy





# 3. Work undertaken and 3 key findings



- 1. The report suggests approaches to develop scenario narratives that could **translate nature concepts and trends into practical physical and transition risks** for the financial system:
  - Physical risk : ESGAP and INCAF-Oxford tools
  - Transition risk: in-house review of nature-related policies and suggested two-step approach to generate narratives
- 2. The report assesses six of the most commonly used « nature-economy » models and of 14 purely « biophysical » models.
- → The most commonly used « nature-economy » models likely underestimate nature-related risks, because they:
  - account for a limited fraction of potential hazards
  - use assumptions that mitigate the consequences of nature loss
- 3. It also studies the main features of MRIO models and tables and conduct of two case studies (drought, policy against 'imported deforestation') linking narratives to MRIOs
- → MRIOs are particularly useful to study impacts along a whole value chain, and have the advantage to assume no elasticities of substitution. However they mostly allow for short to medium term analyses and might not allow for enough granularity

## 3. Recommendations for nature scenario development

## No silver bullet, but many ways forward to design scenarios:

## **Short-term** research program:

- Use input-output tables and models (potentially with biophysical models) for short-term scenarios
- Use some of the more traditional models assessed, but with great caution (e.g. doing sensitivity analyses on elasticities of substitution and communicating clearly on this)

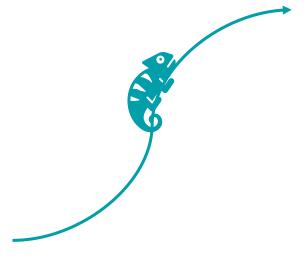
### **Longer-term** research program:

- Represent more ecosystem services, more policy and technology options, and also more issues related to values of nature and "transformative changes" (IPBES, 2019)
- Consider alternative macroeconomic modeling assumptions such as non-equilibrium approaches (e.g. stock-flow consistent models combined with input-output models)

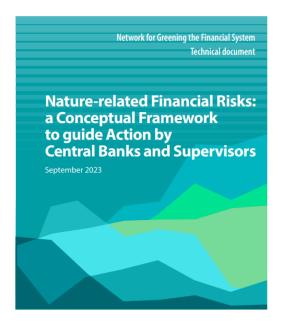
## What's next for the NGFS?



- Short/medium term: work on the Technical document shortterm recommendations, work on narratives;
- Longer term: work on the improvement of modelling tools, development of capacity-building instruments.
- 2. Framework refinement and implementation
- Mainstreaming of nature-related considerations within the NGFS
  - Work on suggestions for workstreams to bridge existing gaps
  - Capacity-building work
  - Start of work on nature in other workstreams and expert networks







# Thank you!





