EARTH BLOX

EXECUTIVE BRIEFING

Financial risks of nature degradation due to climate change

Assessing exposure and building resilience in the banking sector

Dr. Genevieve Patenaude, CEO, Earth Blox

Nature degradation is not just an environmental crisis — it presents a systemic financial risk. Research from Oxford University estimates that economic losses linked to environmental degradation could total up to $5 trillion globally[1].

Banks are particularly exposed: 75% of euro area bank loans are issued to companies highly dependent on nature[2]. As regulatory momentum grows, frameworks like the Taskforce on Nature-related Financial Disclosures (TNFD) and the Network for Greening the Financial System (NGFS) are helping define how institutions must assess and address these risks.

This briefing outlines the financial impacts, risk transmission channels, and practical recommendations for banks and regulators to act.

Why this matters now

Despite growing evidence, the global financial system continues to underprice nature risk[3]. As ecosystems degrade, so too does the productive base of our economy — soil, water, pollinators, and biodiversity. Central banks, supervisors, and policymakers increasingly recognise the threat to financial stability[4]. Institutions like the Bank of England, European Central Bank (ECB), and Brazilian Central Bank have already begun to integrate nature into financial oversight frameworks[5]. The call is now for action, not just awareness.

The transmission of nature-related financial risks

Nature-related risks affect the financial system through four primary channels[6]:

Credit risk: Degraded ecosystems reduce borrower productivity, increasing default risk in sectors like agriculture, manufacturing, and tourism[7].

Market risk: Asset values may fall if investments are tied to unsustainable practices or at-risk ecosystems[8].

Operational risk: Physical infrastructure may be damaged by climate-amplified natural disasters. Institutions also face reputational and legal risks[9].

Liquidity risk: Market disruptions caused by environmental collapse or disorderly transitions may tighten credit availability[10].

Regional focus: the UK and Europe

The Green Finance Institute estimates a potential 12% decline in UK GDP due to nature degradation, exceeding the impact of COVID-19 and the 2008 financial crisis[11]. Some UK banks could face a 4–5% reduction in portfolio value, with agriculture, manufacturing, and utilities most exposed[12]. The ECB reports that three-quarters of bank loans in the euro area are tied to firms highly dependent on nature[2]. These exposures are compounded by supply chain risks, especially from overseas operations.

Why spatial data is essential

Nature risk is inherently spatial. It varies by ecosystem, land use, and geography. Addressing it requires geospatial intelligence, not just spreadsheets. Tools like Earth Blox enable:

- Mapping of deforestation, biodiversity loss, and water stress near financed assets
- Identifying ecosystem dependencies across supply chains
- Integrating nature risk into ESG scoring and credit decisions

Spatial analysis transforms static data into proactive strategy. It shows not just *what* is at risk, but *where, why,* and *what* to do about it.

Regulation and market expectations

TNFD, NGFS, and other regulators are guiding financial institutions toward more structured disclosures and risk governance[13]. The Bank of England is collaborating with DEFRA and other partners to quantify national exposure, with analyses indicating that over half of the UK's GDP and nearly three-quarters of its lending are dependent on nature[14]. Stress testing, scenario modelling, and the TNFD's LEAP (Locate, Evaluate, Assess, Prepare) framework are becoming baseline expectations for due diligence and reporting[15].

What banks must do now?

Nature-related risks cannot be managed in isolation. They intersect with climate, credit, and operational resilience. Leading banks are starting to:

- Integrate nature exposure scores into credit risk frameworks[16]
- Map sectoral and geographic dependencies using tools like ENCORE and Earth Blox[17]
- Adopt scenario analysis and stress testing methodologies to model future risk[6]
- Align disclosure practices with TNFD and communicate exposure transparently[13]

Strategic opportunity

This is not just about compliance. Nature risk management offers a strategic advantage. Banks that move early can:

- Price risk more accurately
- Support clients in sustainable transitions
- Create new "nature-positive" financial products
- Protect against reputational and legal exposure

The tools and data are available. What's needed now is leadership.

References

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Dr. Genevieve Patenaude is CEO and co-founder of Earth Blox. Previously, an associate professor at the School of Geosciences, University of Edinburgh, Genevieve led multiple international research projects on the exploitation of Earth Observation and big data to solve global challenges. She contributed to the Good Practice Guidance for Land Use, Land-Use Change and Forestry for the Intergovernmental Panel on Climate Change, and has published in Nature.

About Earth Blox

Earth Blox helps financial institutions turn nature and climate data into decision-ready insight for risk mitigation, opportunity identification, and regulatory compliance. Built for clarity and action, our platform makes environmental data usable across teams — from sustainability and risk to commercial decision-makers. In a world shaped by nature and climate, this ability to act is not just a sustainability advantage — it's a business imperative.