When the World Vacillates:

Shaping Finance for Nature and Communities

DISCOURSE FOR THE PRI-FIR AWARD

Diane-Laure Arjaliès

darjalies@ivey.ca

Last update: 29 September 2025

INTRODUCTION: INVESTORS UNDERESTIMATE THE IMPACTS OF THE CLIMATE AND BIODIVERSITY LOSS CRISES	*Slide Lehman Brothers.* In 2006, I was a fresh doctoral student who decided to start a three-year ethnography of a trading floor. I was full of hopes and beliefs in the financial market. By 2010, half of the assets under my company's management had disappeared; people had lost their jobs, and one of the most significant financial crises ever experienced had unfolded. What was most distressing to me was not that billions were being lost but that the bond managers I had observed for years had been warned that a crisis was unfolding months before countries and companies defaulted. There was a lot of information in the form of environmental, social and governance criteria that were shared on the market. But the bond managers I worked with never dared to change their investment practices. They never agreed to consider non-financial information in their decision processes. I spent four years of my doctoral thesis studying those traders and their practices to determine why such a crisis could happen – why traders would ignore the information they were given. And my conclusion was simple. Bond managers could not envision the world differently: they had been educated and socialized in a specific way, with specific financial models, like the yield curve, which did not factor the society in. This started my passion for sustainable finance: I wanted to understand how financial markets could be transformed to consider what society meant to them and what they could do for society. Today I lead the Sustainable Finance lab at the Ivey Business School, in Canada, a living lab where we develop and test new financial products to support the transition toward a green economy. As I am doing this exciting work with a wonderful team, I have the unpleasant feeling that the story I experienced twenty years ago during the financial crisis repeats itself. Despite the increasing interest in sustainability issues, financial markets do not seem to grasp how much the biodiversity and climate crises already impact them and how different tomorrow's world will be.

	One number tells it all: Today, 55% of global GDP depends on biodiversity and ecosystem services.[i] However, only 1% of the finance to fight the climate crisis is channelled toward restoring ecosystems.[ii] In the next ten minutes, I will show why those who invest in nature today will be tomorrow's financial and ecological winners and why we should act now.
POINT 1 – THE CLIMATE AND BIODIVERSITY LOSS CRISES ARE ALREADY HAVING HUGE IMPACTS & COUNTRIES ARE PUTTING TARGETS AND POLICIES IN PLACE	*Slide planetary boundaries.* Let's start with a quick refresher. In 2009, scientists agreed nine planetary boundaries provided a safe space for humanity, such as climate change, biodiversity loss or ocean acidification.[iii] At the time, so sixteen years ago, three boundaries had already been crossed – so six were safe. In 2025, the scientific team updated their article. Their findings are dire: only two safe thresholds had not been crossed (i.e., ozone and aerosols). The biodiversity and climate crises are already causing havoc on societies and economics alike. Between 1970 and 2016, over 68% of the mammals, birds, amphibians, reptiles, and fish on earth disappeared, and more than 85% of wetlands were lost.[iv] The Canadian Climate Institute estimates that climate change would have shaved $25 billion off the national GDP in damage by the end of the year– representing half a year of Canadian economic growth. The EU is facing losses of similar magnitude relative to its economy — projected at nearly 2% of GDP by 2050, amounting to hundreds of billions of euros.[v] 72 per cent of eurozone companies and 75% of bank loans in the region are exposed to biodiversity loss. Without urgent action, the EU stands to lose 1.95% of its GDP by 2050. That rises to 4.66% by 2100.[vi] Many countries have developed targets to reverse the crises. In 2022, the Kunming-Montréal Global Biodiversity Framework was adopted, through which governments committed to protecting 30% of their lands and waters by 2030. Many nations have committed, but global progress is lagging. Only 17.6% of the world's land and 8.6% of the seas are now under global protection, and more than 100 nations are less than halfway to meeting the target.[vii] Targets and policies are a good starting point. But without the capital to finance the transition, it is doubtful we will achieve a just transition to a green economy. We need investors.
POINT 2: THE GREEN TRANSITION OFFERS MANY OPPORTUNITIES TO INVESTORS BUT REQUIRES A DEEP TRANSFORMATIO	As of 2025, there was an estimated 50 regional- and country-level taxonomies development worldwide.[viii] Those taxonomies create standardized and science-based definitions to establish climate-compatible investments. In other words, they are here to channel capital toward the green economy and tell us what tomorrow's economic activities will be. By clearly defining those opportunities through taxonomies, the governments hope to attract the global capital needed to fund the countries' net zero transition. In Europe, the challenge is immense: to meet its 2030 climate

N OF INVESTMENT PRACTICES	and energy goals, the EU will need €400–620 billion in additional investment every year. These figures illustrate not only the scale of what is required, but the scale of opportunity for those who lead in the transition. But the way the transition is approached also presents some challenges. Let me focus on two. *Slide ineffective chanelling.* First, most projects so far target climate mitigation or the reduction of carbon emissions – in other words, we try to reduce our harm to the planet. We try to do less; but we need to do differently, and this requires innovation. We will not achieve a 1.5C degree scenario without investing in climate adaptation. As I explained above, only 1% of the finance to fight the climate crisis is channelled toward restoring ecosystems. We need to shift the capital allocation from mitigation to adaptation – invent new financial instruments notably on nature-based solutions, or we might be too late, as we were for the financial crisis. This leads us to the other main challenge we will need to address quickly if we want to transition in time: the need to transform investment practices and build capacity. Today's financial models and reporting systems are not aligned with the requirements put forward by those global issues. Investors must be systems thinkers, integrate science-based targets in their models, and work with interdisciplinary teams. The financial tools we developed in the last century, like risk diversification, yield curves and other portfolio theories, are outdated. We need to re-think how we train and evaluate financiers and their practices. We need to be bold and imagine and activate a new future.
POINT 3: THE LAB IS SHAPING THE TRANSITION BY BUILDING CAPACITY, INFORMING POLICYMAKING, AND INVENTING THE FINANCIAL PRODUCTS OF TOMORROW	And this is where the collaboration between research and industry, such as today's initiative by the FIR and PRI, plays a role. In the Sustainable Finance Lab I lead, we act as a living laboratory—co-designing financial products with corporations, governments, communities, and industries. We do not study finance from a distance; we build and test instruments in practice, ensuring they are inclusive, effective, and transformative. A central focus of our work is on Nature-Based Solutions (NbS)—actions that safeguard, manage, and revitalize ecosystems to address societal challenges. These include wildlife corridors, cover cropping, natural water retention measures, and buffer strips. The evidence is clear: a meta-study of 155 articles showed NbS were more effective than engineering solutions in reducing hazards in 65% of cases and more cost-effective in 71%. NbS could provide 37% of the cost-effective CO_2 mitigation needed by 2030 to keep warming below 2 °C.[ix] Yet the financing gap is immense. Global NbS investment reached USD 200 billions of US dollars in 2022, but 542 billion annually will be required

	by 2030. Only 18% of this comes from the private sector, while 5 trillion of US dollars annually flows into activities harmful to nature—140 times more than what is invested in NbS. Redirecting even a fraction of these flows could transform our trajectory. We are also pioneering regenerative agriculture finance—helping to accelerate the transition of the agri-food sector toward resilience and sustainability. At the Lab, we are not only designing new financial products—we are also revolutionizing how research is done. Our approach is rooted in community-based, participatory, and decolonial methods. We build projects with those most affected, integrating diverse knowledge systems and transforming sustainable finance into a practice of collaboration and innovation. Later today, you will be presented one example: the Deshkan Ziibi Conservation Impact Bond, which received the award for best article. It is the first community-driven, Two-Eyed Seeing conservation impact bond worldwide. Beyond its impact on practice, it shows how research in sustainable finance can be reinvented—emerging from communities, grounded in Indigenous knowledge, and carried forward in true partnership. *Slide Two-Eyed Seeing.* This illustration was created by an Indigenous artist we collaborate with at the Lab. It speaks to the spirit of the Conservation Impact Bond — showing trees that stand apart above ground yet hold hands through their roots below, a reminder that our strength comes from connection, reciprocity, and shared responsibility.
CONCLUSION: YOU CAN BE PART OF THIS CHANGE	As investment professionals, policymakers, and citizens, each of us can be part of the change. What we do at the Sustainable Finance Lab shows that finance and accounting, which have too often served narrow or destructive purposes, can be reshaped into tools for transformation. This message is especially urgent today. Even as the climate and biodiversity crises deepen, we see a rising backlash against responsible investment and a wave of anti-ESG rhetoric. These challenges make it clear that advancing sustainable finance is not just a technical task — it is also political, cultural, and deeply contested. Yet our experience proves that when institutions are questioned and rebuilt with diverse voices, new possibilities emerge — possibilities that protect ecosystems, strengthen communities, and open pathways to more resilient economies.

	Although small and humble, our work demonstrates that academics and practitioners can act differently: engaging directly with those most affected, building financial instruments that embody responsibility and care, and refusing to accept the status quo. When the world vacillates, where we stand matters. If we act together now, we can still build the safe and just planet we want.

[i] UNEP (2021)
[ii] Strassburg, B. B. et al (2020). Global priority areas for ecosystem restoration. Nature, 1-6
[iii] https://www.nature.com/articles/461472a. They included climate change, ocean acidification, stratospheric ozone depletion, chemical pollution, atmospheric aerosol loading, biodiversity loss, change in land use, global freshwater use, nitrogen, and phosphorus cycles.
[iv] WWF (2020)
[v] https://climateinstitute.ca/the-gdp-costs-of-climate-change-for-canada/
[vi] https://www.g20climaterisks.org/european-union/
[vii] https://www.theguardian.com/environment/2025/sep/05/30x30-biodiversity-target-protecting-nature-land-seas-survey-public-support-aoe?
[viii] https://www.climatebonds.net/expertise/taxonomies/climate-bonds-global-taxonomy-landscapes
[ix] (Vicarelli et al., 2024). (Griscom et al., 2017).