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NATURAL CAPITAL AND INVESTING IN FOOD SYSTEMS TRANSFORMATION



TIFS TRANSFORMATIONAL
INVESTING IN
FOOD SYSTEMS

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ABOUT THE AUTHOR:

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David Bennell is a leading ESG and Sustainability management professional with 30 years of experience with corporations and investors, as well as many of the world's top NGOs and philanthropic foundations. He is also an investor and advisor to emerging technology companies fighting climate change and biodiversity loss.

He's worked directly in the corporate sector at Microsoft, REI, and LL Bean managing R&D, leadership development, and sustainability programs, and held a 5-year appointment at MIT as adjunct faculty in the Department of Aeronautics and Astronautics. David wrote and presents many of the world's most watched corporate sustainability courses viewable on LinkedIn Learning on topics like biodiversity and business, regenerative agriculture, natural capital, and a new upcoming course on AI and sustainability. His Sustainability Strategies course was named the #1 global course for impact investors.



EXECUTIVE SUMMARY

For years, natural capital was on the periphery of corporate strategy and investor focus, if considered at all. However, as limits on natural resources tighten, regulations increase, and investors begin to factor environmental risks into their valuations, one thing is clear: natural capital is no longer a peripheral issue; it is becoming a central strategic concern. The companies and investors who understand this aren't just reacting to pressure. They're reconsidering how they grow. When natural capital is integrated into business strategy, it's not just about avoiding harm; it becomes a source of innovation, resilience, and competitive advantage.

Sustainable food systems rely on natural capital, which includes the stock of ecosystems, biodiversity, soil, water, trees, plants, and air that support agriculture, forestry, and energy. Natural capital serves as the fundamental foundation for life on Earth, and it is estimated that [more than half of annual global GDP heavily depends on nature](#). Yet historically, investment frameworks and financial markets have undervalued these assets, generating blind spots in corporate risk assessments and missed opportunities for transforming global food value chains to feed a hungry planet sustainably and profitably.

Driven by climate and nature-related risks, sovereign wealth funds and other institutional investors are reshaping their portfolios. Many of those changes are food systems-related, like the Development Bank of Japan's investment in controlled-environment agriculture, Norges Bank conducting natural-capital risk assessments across 96% of its holdings, and Goldman Sachs and BlackRock launching biodiversity-and nature-focused investment products.

These trends suggest a structural rethinking of value, risk, and opportunity in food, agriculture, and other related sectors that depend on natural capital inputs, such as fashion, building, and construction, among others.

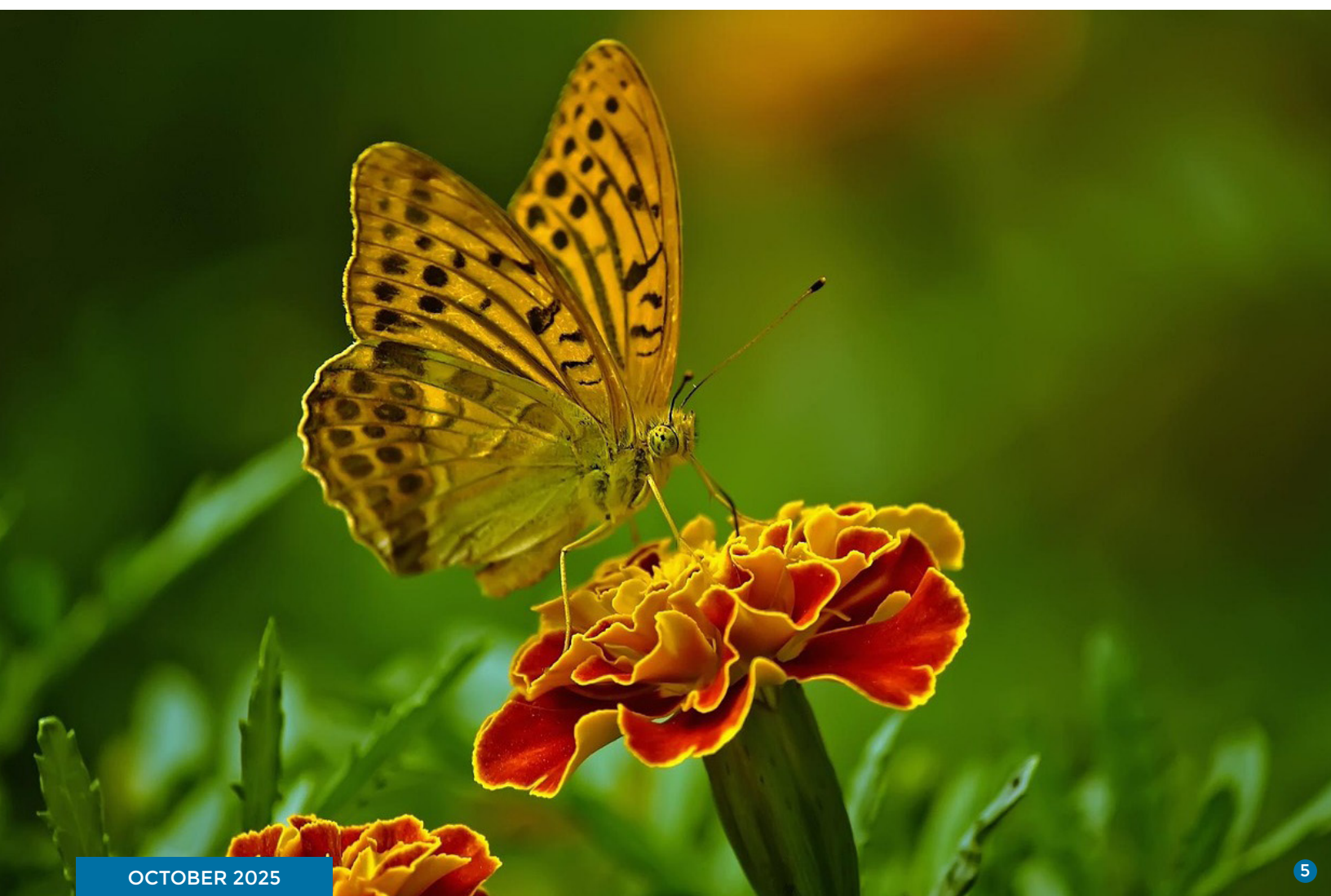
Since its inception in 2020, TIFS has focused on generating systems-based insights about investments in food and agriculture. As investors increasingly consider the material and systemic risks of depleting natural capital, TIFS is connecting these investors with nature-positive solutions. TIFS is uniquely addressing Missing Middle Infrastructure (Data, Finance, and Physical) to connect global finance and local food system actors. Our solutions support natural capital investors who are interested in long-term solutions in the food and agriculture system.

NATURAL CAPITAL AND ITS EMERGING SIGNIFICANCE TO GLOBAL FOOD SYSTEMS

Natural capital comprises nature's stock of soil, water, air, biodiversity, pollination, and ecosystems upon which life and the economy depend. It is foundational to agriculture and food systems; yet investment frameworks have long ignored its dynamic asset value.

And as [we've published here at TIFS](#), natural capital is emerging as a distinct and investable asset class because ecosystem health directly affects economic yield, risk, and long-term returns. Institutional investors are beginning to assess and price natural capital risk across portfolios. For example, Norges Bank Investment Management (managing Norway's sovereign wealth fund of almost \$2 trillion in AUM) recently placed 96% of its portfolio through a natural-capital risk assessment, underscoring how intrinsic ecosystem risks are being mainstreamed in asset allocation decisions. Additionally, asset managers such as Goldman Sachs and BlackRock have launched biodiversity bond funds and/or are integrating natural capital into their investment models, recognizing the materiality and future value of conserving nature.

By treating natural capital as an emerging asset class, investors can more accurately assess long-term risk, reveal new high-impact opportunities, and align portfolios with broader risk, return, and resilience goals.





THE “MISSING MIDDLE” IN FOOD SYSTEMS INVESTING AND NATURAL CAPITAL

The global food and agriculture system faces a chronic and persistent investment gap across the emerging natural capital landscape asset class—what TIFS and others refer to as the [“Missing Middle.”](#) This gap represents enterprises that are too large or mature for grant or seed funding, yet too small or risky for mainstream institutional capital.

It’s estimated that to close the global food systems investing gap will require \$200–\$450 billion annually of new natural capital and production infrastructure investments over the next decade, yet only about \$45 billion is being mobilized right now, leaving a massive funding shortfall.

Some innovative investors [are stepping into this gap](#), like Builders Vision, a firm that targets mid-stage ventures that are “too small and risky for institutional investors” yet beyond seed-stage, aiming to help close the Missing Middle. And, the Development Bank of Japan has made a [landmark investment](#) in Equilibrium Capital’s Controlled Environment Foods Fund II. The fund focuses on scalable controlled-environment agriculture solutions within one of the many Missing Middle natural capital gaps between small entrepreneurs and global agribusinesses companies.

The [AGRI3 Fund](#), a blended finance vehicle launched by UNEP, Rabobank, IDH, and FMO, mobilizes debt and grants to invest in sustainable agriculture and forest protection—combining technical assistance, grants, and risk mitigation to unlock \$1 billion in finance for deforestation-free land use. These types of catalytic capital and blended finance models serve as critical tools for bridging capital gaps, enabling investments in food system enterprises and natural-capital-aligned strategies that were once inaccessible to mainstream investors.

As noted, Norway’s Norges Bank has [committed to systematic natural capital risk assessments](#) across nearly its entire portfolio—highlighting that ecosystem degradation and biodiversity loss are recognized financial risks today. [Japan’s Government Pension Investment Fund](#) (GPIF) has made notable natural capital-oriented investments, such as investments in Asian Development Bank green bonds. And the Development Bank of Japan (DBJ) not only invested in Equilibrium Capital’s Controlled Environment Foods Fund II, DBJ has backed a Proterra Asia food-focused private equity fund.



NATURAL CAPITAL: BEYOND FOOD TO RELATED SECTORS

Like the global food system, natural capital is vital to fashion, footwear, other consumer goods sectors, buildings and construction, and even automotive companies, all due to their reliance on nature-based raw materials like cotton, leather, wood, and oil-based polyesters.

Multinationals and investors are recognizing this opportunity, like Climate Asset Management (CAM), a joint venture between HSBC Asset Management and Pollination, which has raised \$650 million toward regenerative agriculture, forestry, and nature-based carbon solutions. CAM targets opportunities across global value chains particularly food, agriculture, and built environment systems, and seeks investments in biodiversity and ecosystem restoration.

Fashion and beauty brands like Kering and L'Occitane have created a €300 million “Climate Fund for Nature” focused on nature protection and restoration, deploying natural capital finance to safeguard critical ecosystems embedded in their mutual supply chains.

These investments reflect how natural capital risk and opportunity are shaping diverse sectors beyond food and agriculture, to include apparel, construction, automotive, and others.



NATURAL CAPITAL AND TIFS

Natural capital has been a core consideration in TIFS' work since our inception, when we adapted a true cost accounting framework for investment screening. Our investment screening methodology considers the natural capital outcomes of investments, alongside human and social capital.

TIFS is developing unique approaches for Missing Middle Infrastructure (Data, Finance, and Physical) that will facilitate natural capital investments in the regenerative sector. For instance, [DiversiFund](#) is a new, systems-level investment fund designed to transform food systems. DiversiFund builds on years of TIFS' global work as ecosystem architects—developing frameworks, convening stakeholders, and incubating financial innovations. DiversiFund fills a critical gap in food systems finance: a flexible financing vehicle tailored for use in system-based approaches. Aiming for \$100 million in capital commitments in 2026, this investment fund tackles the barriers that have been identified by TIFS as blocking the transition of our food systems: lack of regional infrastructure, limited capital access, missing data, mispriced risk, and **devalued natural assets**.

Another new initiative with important natural capital and natural asset components is the Resilience in Agriculture Lending & Insurance Coalition (RALIC), developed by TIFS. RALIC tackles the barriers farmers face in adopting soil-centered (natural capital) practices by creating practical solutions such as new forms of transition support and captive insurance models that offer lower premiums to farmers in transition. At stake is more than actuarial and insurance data: the initiative is also building both public and private datasets that determine who controls, benefits from, and has access to critical information about regenerative systems, risk, and performance. Without this evidence base, public decision-makers lack the data needed to design supportive policy, and this approach risks being confined to a niche rather than advancing as a system-wide lever for resilience. RALIC represents a transformative opportunity to redefine financial support for regenerative agriculture, addressing systemic barriers, and enhancing market maturity.



CONCLUSION

For years, natural capital lived on the outside edges of corporate strategy and investor interest, if at all. But as natural resource constraints tighten, regulations expand, and investors begin to factor environmental risk into valuations, one thing has become clear: natural capital isn't a peripheral concern, it's now becoming a core strategic issue.

The food and agriculture companies (and their investors) that understand this aren't simply reacting to pressure. They're rethinking how they grow. Because when natural capital is integrated into business strategy, it's not just about avoiding harm, it becomes a source of innovation, resilience, and competitive advantage.

Financial regulators are taking note as well with many central bankers now warning nature loss poses a systemic risk to the global financial system. In other words, neglecting natural capital isn't just an environmental issue, it's a serious business and investor vulnerability.

Integrating natural capital into decision-making can reduce risks and unlock opportunities. By developing strategies to assess and reduce impacts and dependencies on nature, food and agriculture companies can boost resilience while creating long-term value. Investors now recognize companies are better positioned for the future when they effectively manage natural capital and those investors are shifting capital accordingly.



ABOUT TIFS AND OUR NATURAL CAPITAL THEORY OF CHANGE

Since 2020, [Transformational Investing in Food Systems](#) (TIFS) has operated as a catalyst for financial and business innovation so that nature, producers and their communities increase their resiliency in markets. Utilizing systems-based strategies, TIFS prototypes and deploys financial tools and methodologies to improve financial and business strategy development and decision-making involving real assets and ecosystem services.

Trillions of dollars are circulating in the global financial system. At the same time, businesses and governments are recognizing the vulnerabilities of nature-based supply chains, investors are becoming aware of unassigned risks in their portfolios due to a continued decline of various

natural assets, and food producers implementing nature positive production changes are still considered high risk and hard to finance at needed scales.

TIFS believes that food systems transformation and natural capital are intrinsically interconnected. We see that natural capital is becoming an attractive asset class for both public and private investors, and that public and private investors are interested in natural capital because they can treat natural resources as assets, and quantify their values to assess and measure risk, investment strategies and regulatory requirements.



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OUR MISSION:
To unlock finance and accelerate the transition
to regenerative food systems worldwide.



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