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EDITED BY

Leanne Ussher,
Bard College, United States

REVIEWED BY

Mayssam Daaboul,
American University of Science and
Technology, Lebanon
Dickbryan Bryan,
The University of Sydney, Australia

*CORRESPONDENCE

Kate Bennett,
✉ kate.bennett@student.uts.edu.au

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The ReFi movement in Web3: implications for the Global Commons

Kate Bennett*

Institute for Sustainable Futures, University of Technology Sydney, Sydney, NSW, Australia

'ReFi' is a rapidly emerging movement in the web3 space that seeks to leverage blockchain technology and decentralized finance (DeFi) protocols to deliver positive real-world impact. While ReFi is short for regenerative finance, regenerative practitioners query the regenerative claims of the movement. This perspective article explains why the regenerative claims of the ReFi movement are under scrutiny and highlights the implications for the Global Commons if the movement does not adhere to regenerative principles. Given that ReFi is a blockchain-enabled movement, the impact of ReFi on the Global Commons is implicitly a blockchain-related concern. This article provides a regenerative practitioner's perspective on the ReFi movement as a point of reference for blockchain practitioners in the ReFi movement seeking to be a force for good. Long-standing research in ecological economics highlights the negative impacts of over-financialization and commoditization on the natural world. Given that blockchain technology enables more of the world's natural assets to become commoditized, securitized, and collateralized than ever before, the article asserts that DeFi's drive to financialize everything could make the Global Commons the next, and final, commodity frontier. It also asserts that the ReFi movement has the potential to reverse this trend if it can genuinely adhere to the regenerative paradigm.

KEYWORDS

ReFi, web3, regenerative finance, sustainable finance, impact, over-financialization, Global Commons, commodity frontier

1 Introduction

'ReFi' – short for 'regenerative finance' and a play on the decentralized finance moniker 'DeFi' – is a rapidly emerging movement in the web3 space, inspiring the emergence of new blockchain technologies and methodologies that leverage both decentralized finance (DeFi) protocols and (supposedly) regenerative principles to deliver positive real-world impact. However, regenerative practitioners fear that many ReFi initiatives merely apply financial engineering and linear models to environmental challenges and label these protocols as regenerative. Given these approaches are firmly grounded in neoclassical economic ideology, which is inherently at odds with the regenerative paradigm, such initiatives cast doubt on the regenerative claims of the ReFi movement.

While some ReFi initiatives appropriately self-categorize as decentralized sustainable finance (Sustainable DeFi), others are considered by harsher critics as DeFi greenwashing. There are concerns that the lack of definition and regulation in the ReFi space may jeopardize the integrity and credibility of the ReFi movement and, more importantly, pose a significant risk to Global Commons. This concern is exacerbated given DeFi's ability and

intention to reach even further into the real economy than traditional finance (TradFi) and exponentially increase financialization. This article seeks to explore these concerns, consider whether they are warranted, and reflect on how risks to the Global Commons might be mitigated.

To explore these concerns, this article presents a conceptual analysis rather than a formal empirical study. It synthesizes insights from ecological economics, regenerative finance, and blockchain literature to critically assess the potential and pitfalls of the ReFi movement.

Section 2 of the article outlines the difference between the sustainable and regenerative paradigms, with specific reference to the field of finance, and highlights how this difference impacts our interpretations and interactions with the Global Commons. This first section is intentionally devoid of blockchain references and seeks to establish contextual understanding of the core paradigms and trends regardless of technological intervention. **Section 3** focuses more explicitly on the claims and critiques of the ReFi movement in Web3, highlighting the opportunities and challenges this blockchain-enabled movement presents for the Global Commons. And **Section 4** presents final remarks regarding the future evolution of the ReFi movement and the wellbeing of the Global Commons.

2 Sustainable v regenerative paradigms: relevance for the global commons

2.1 Origins and foundational definitions

Sustainability emerged in 1987 in *Our Common Future*—a World Commission on Environment and Development report which defined Sustainable Development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland, 1987). The sustainability paradigm considers the interconnectedness of social, environmental, and economic dimensions and encourages reflection on how things might be done differently to reduce harm to people and planet in the pursuit of economic development.

The regenerative paradigm, which originated in the 1970s through the living systems approaches of James Grier Miller and Charles Krone, considers how we might enhance the evolutionary capacity of people and nature, establishing processes that heal, restore, and revitalize ourselves and the planet in co-evolving mutualism (Mang and Haggard, 2016). It inspires new ways of thinking and being that bring greater harmony and vitality to the larger systems within which we are nested (Mang and Haggard, 2016). As such, operating from the regenerative paradigm requires introspection, connection to essence, and considered reflection on our underlying beliefs and thought processes (Sanford 2022).

The Global Commons originated from a radical proposal in the 1960s to define and protect the Common Heritage of Humankind (Garcia, 2021). This evolved into Global Commons Law which is today sustained through a myriad of international treaties and institutions covering the geopolitically defined domains of the Global Commons: The High Seas, Outer

Space, the Atmosphere, Antarctica, and the Arctic (Garcia, 2021; UNESCO, 1980). The Global Commons Alliance extends beyond this geopolitical definition and defines the Global Commons as “the things that we all share and that we all need to thrive and prosper . . . Our life support system. Vital for all life and civilization.” This includes “the atmosphere and land, the ocean and ice sheets, a stable climate and abundant biodiversity, the forests, the gigantic flows of carbon, nitrogen, water and phosphorus and more” (Global Commons Alliance, 2022). In this article, the Global Commons refers to the environmental domains referenced by the Global Commons Alliance as well as the domains covered by Global Commons Law.¹

2.2 Respective perspectives on the global commons

The Global Commons are interpreted slightly differently by the sustainability and regenerative paradigms.

In the sustainability paradigm, the state and nature of the Global Commons is considered finite and fixed, with key terminology referencing thresholds and limits that must not be surpassed. Humanity is called to make use of these finite resources to service our needs, without depleting or degrading them to the extent that they are unable to deliver value and benefit for future generations. In this paradigm, innovation seeks to stay within the boundaries defined and address problems as they arise. Through the sustainability lens, the Global Commons are considered a resource for humanity to use responsibly: a resource that humanity has the right to exploit but equally a responsibility to protect and preserve.

In the regenerative paradigm, the state and nature of the Global Commons is considered infinite and a baseline for future potential. The onus is on humanity to understand the principles of living systems and integrate them in all it does to stimulate the healing and regeneration of our societies and ecosystems. Rather than problem solving, innovation in the regenerative paradigm seeks to develop evolutionary capacity and actualize regenerative potential. Through the regeneration lens, the Global Commons are considered part of a living system within which humanity exists and interacts: a system that humanity has a duty to serve and to nurture.

So, while the two paradigms seem similar, they inspire a significantly different perception and interaction with the Global Commons. This difference is further intensified in the financial context.

¹ While cultural heritage is also considered within the Common Heritage of Humankind (Forrest 2007), this “social” Global Commons is not covered within the context of this paper. Social commons are considered by many to be just as valuable as environmental commons, particularly given the wealth of indigenous knowledge and traditional wisdom globally that is held, nurtured, and passed on from generation to generation. However, social commons present distinct characteristics and challenges compared with environmental commons and are beyond the scope of this discussion

2.3 Sustainable finance v regenerative finance: change v transformation

Sustainable Finance is an umbrella term assigned to a broad range of financial approaches and mechanisms within the existing financial system deemed to support the Sustainable Development Goals (SDGs). Given the lack of a common definition, Weber identifies the following financial products and services as sustainable finance: socially responsible investment (SRI) which also covers Environmental, Social and Governance (ESG) criteria, impact investing, social impact bonds, green bonds, development finance, project finance, sustainable credit risk assessment, microfinance, and green credit (Weber, 2021). Busch et al. (2021) make a clear distinction between impact-aligned and impact-generating investment, and classify the majority of these sustainable finance products as impact-aligned (Busch et al., 2021). Recent research into novel sustainable finance mechanisms also shows that they fail to generate effective sustainability outcomes (Auzepy et al., 2022; Du et al., 2022) with lenders being the main beneficiaries (Du et al., 2022).

Consistent with the sustainability paradigm, sustainable finance is predominantly focused on reducing harm and applying innovative problem-solving to sustain economic outcomes within defined social and environmental boundaries. The limitations of this approach are evidenced in recent disputes between prominent sustainability standard-setters: the Global Reporting Initiative (GRI) and the International Sustainability Standards Board (ISSB) regarding double materiality (GRI, 2022). While the ISSB believes companies should only disclose sustainability information that presents a material financial risk or opportunity to the business (Bouvier, 2022), the GRI argues that companies should be required to report any aspect of their sustainability performance that materially impacts people or planet, regardless of its impact on financial performance (GRI, 2022). If the finance industry continues to prioritize financial performance over sustainability performance in this manner, sustainable finance approaches will be insufficient to restrain global social and ecological destruction.

Regenerative Finance, by contrast, is a reimagining of the financial system based on living systems principles. This is a foundational definition, as for something to be truly regenerative it must be grounded in living systems principles (Sanford, 2018). The concept of regenerative finance emerged from John Fullerton's work in regenerative economics (Fullerton, 2017). In 2015, Fullerton defined eight principles of regenerative economics grounded on three premises:

- i. The human economy is a living system.
- ii. There are universal patterns and principles that define the qualities of healthy living systems.
- iii. For our economy, and the society and environment in which it is nested, to be sustainable over the long run, it must align with these patterns and principles (Fullerton, 2015).

In later publications, Fullerton unpacked the nature of the financial system and the fatal flaws of the existing neoclassical economic ideology (Fullerton, 2017) and laid out the following eight principles that finance would need to embody to enable a regenerative economy to emerge and thrive (Fullerton, 2015):

1. Means not Ends: a “means” to a healthy economy, not the “ends” of economic activity.
2. Ethical and in Service: an ethical profession, grounded in a culture of service to clients and service to the emergence of a regenerative economy.
3. The Supremacy of Relationship: values relationships over transactions
4. Transparency: regenerative finance values transparency over complexity, while embracing genuine value-adding innovation
5. Real Wealth: seeks to generate long-term wealth creation, harmonizing multiple forms of capital ‘in right relationship’, using a fair financial return as a constraint for investment decisions
6. Right Scale: appropriately scaled as a system embedded in the economy, which in turn is embedded in culture and the biosphere.
7. Collaborative: values collaboration among value-aligned investors, financial institutions, and enterprises from multiple sectors, mimicking nature’s “edge effect”
8. Resilient: system must balance efficiency with structural resiliency at the system level through decentralization, diversity, and buffers within institutions and even within the money system itself

Fullerton's principles of regenerative economics and regenerative finance build on Herman Daly's foundational work in ecological economics (Daly, 1992) and reinforce the global imperative to break away from the unsustainable ideology of neoclassical economics (Bragdon, 2021; Washington and Maloney, 2020).

In summary, the core difference between sustainable finance and regenerative finance is that the former works within the dynamics of existing financial system, grounded in the same ideologies, while the latter seeks to transform the dynamics of the financial system, consistent with living systems principles.

3 Blockchain's ReFi movement: implications for the global commons

3.1 Origins and foundational definitions

While the ReFi movement has been quietly evolving for the past 5 years, it gained significant traction and notoriety following the partnership launch in October 2021 of KlimaDAO and Toucan Protocol. This partnership brought carbon markets to DeFi, with Toucan Protocol bringing off-chain credits on-chain and KlimaDAO providing the on-chain trading platform. This unleashed a wave of new carbon-focused ReFi projects, many of which are drawing public critique due to their focus on financialization and market efficiencies rather than regenerative economic principles.

Possibly one of the greatest challenges facing the ReFi movement is its lack of a common vision and shared definition. The following provides an indication of the diversity of ReFi definitions within the movement:

- ReFi seeks to use the blockchain and cryptocurrencies to cause positive change and solve systemic problems, such as climate change (Flynn, 2022).

- ReFi is an experiment to create financial incentives to draw down carbon emissions, “regenerate” the environment and ultimately reverse climate change (Neelakanti, 2022).
- ReFi’s mission is to systematize incentives to make regenerative places feasible (Prados, 2022).
- ReFi refers to the environment and our climate, and how DeFi can enable value creation for carbon projects via the Voluntary Carbon Market (KlimaDAO, 2022a).
- ReFi - leveraging pooled capital from DeFi as a tool to solve systemic problems (racism, environmental degradation, climate change) at scale (KlimaDAO, 2022b).
- Regenerative Finance (ReFi) is a model that uses money to incentivize communities to solve systemic issues. This new financial layout encourages individuals to generate an income by working on and funding public good projects (Lenga, 2022).

ReFi is not a monolith—definitions and implementations vary widely, ranging from financialized market-driven models to decentralized, community-driven approaches. Some ReFi initiatives lean into financialization and liquidity-driven mechanisms, while others focus on participatory governance and ecological stewardship. These inconsistencies make it difficult for the movement to respond cohesively to critiques regarding commodification, over-financialization, and adherence to neoclassical principles. Understanding this spectrum is critical to evaluating ReFi’s potential and distinguishing genuinely regenerative initiatives from those that may be more accurately classified as Sustainable DeFi.

3.2 Core critiques of the ReFi movement

Proponents of TradFi and DeFi alike are seeking innovative ways to generate financial yield while safeguarding environmental outcomes. As such, new environmental markets, commodities, and securities are emerging in both centralized and decentralized markets that enable prices to be attached to nature so that it can be effectively traded for financial “ends”. This commodification of nature, grounded in neoclassical economic ideology, exacerbates a problematic trend of over-financialization. It is here that we see a clear divergence between sustainable finance and regenerative finance with respect to the Global Commons: a divergent trend that the ReFi movement risks accelerating at pace.

3.2.1 Commodification of nature (anthropocentrism v ecocentrism)

Critiques regarding the commodification of nature can be categorized as moral, pragmatic, or material (Hermann, 2021). The latter holds the greatest relevance in terms of the Global Commons as it expresses concern for “the dispossession of commonly held resources and the negative consequences of commodification for the nature and substance of previously non-commodified goods and services” (Hermann, 2021). Rather than discussing the topic of commodification in absolute terms, Hahn et al. (2015) define degrees of commodification. The two highest degrees—economic instruments and financial instruments—are the main concern for the Global Commons as they enable value to be set by the markets. As Daly highlights (2014) problems arise when we

endeavor to express natural capital as financial capital. “Money is fungible, natural stocks are not. Exchanges of matter and energy among parts of the ecosystem have an objective ecological basis. They are not governed by prices based on subjective human preferences in the market.”

We are seeing new markets and mechanisms emerge in sustainable finance that seek to commoditize aspects of the Global Commons in a bid to enhance market efficiencies and financial returns while protecting and preserving the environment. However, history shows that such commodification, underpinned by neoclassical economic theory, inevitably results in the destruction and degradation (rather than the protection and preservation) of nature (Bragdon, 2021; Daly, 2014; Paul, 2021).

In contrast, regenerative finance and “economies that mimic life are showing the world a more robust form of free market capitalism” (Bragdon, 2021). According to Washington and Maloney (2020). Daly’s steady state economics (Daly, 1992), which is solidly grounded in ecocentrism – “seeing humanity as part of nature and recognizing the intrinsic value of all lifeforms and ecosystems” (Washington and Maloney, 2020) – is “the only model of ecological economics that comes close to foregrounding ecological ethics” (Washington and Maloney, 2020). Other models maintain an anthropocentric bias, valuing nature and ecosystems only when they hold value for humanity. Ecocentrism differentiates regenerative finance from sustainable finance, and is the fundamental mindset shift humanity needs to make in order to successfully transform global finance into a system that works in service to both people and planet (Fullerton, 2017).

It is important to distinguish between quantification—the ability to measure aspects of the natural world—and commodification—the process of turning these measurements into tradable financial instruments. Blockchain technology enables new forms of environmental accounting that do not necessarily require commodification. For example, a ledger can track ecological health indicators without converting them into financial assets. ReFi must be cautious about how it uses quantification: does it serve stewardship, or does it facilitate new markets that deepen financialization?

Currently, the primary focus of many ReFi initiatives is to enhance the commoditization and standardization of environmental assets to increase efficiency in the markets. Blockchain technology enables more of the world’s natural assets to become commoditized, securitized, collateralized, and brought on-chain, thus increasing financial activity by creating new primary and secondary markets: but this does not necessarily generate any real-world impact. Neoclassical ideology would suggest that such commoditization is a necessary evil in the transition to a regenerative world (Martin-Ortega et al., 2019). But regenerative finance, grounded in living principles, cannot exist in neoclassical economic ideology. Therefore, by building on a neoclassical base, the ReFi movement may be delaying the very transition it seeks to catalyze and placing the Global Commons at greater risk of exploitation.

In 2000, Jason Moore coined the term ‘commodity frontier’ to define “the process of appropriation, exploitation, dispossession and ecological fragmentation generated by the constant expansion (and resultant natural resource depletion) of fundamentally extractive economies” (Joseph, 2019). Each commodity frontier can “set into

motion a vast complex of economic activities” (Joseph, 2019). As we see markets emerging both on-chain and off-chain in carbon, biodiversity, water and other natural assets, it would appear the Global Commons has become the next commodity frontier and that complex economic activities are set to be accelerated at pace and at scale by the ReFi movement.

3.2.2 Over financialization

Many modern economists acknowledge the alarming increase in financial activity in society. In *Doughnut Economics*, Raworth (2017) challenges Gross Domestic Product (GDP) as a metric for economic prosperity and asserts that the financial industry’s inclusion in GDP institutionalized the purpose of finance as “ends” rather than “means”. Paul (2021) also claims that “finance, rather than being a respectable means to an end, has become an end in itself that is hurting the real economic growth it was designed to facilitate” And Tricarico (2012) identifies how the deeper penetration of financial markets into the real economy enables “investor-driven appropriations and control of forests, fisheries, arable land, and water resources historically managed as commons.”

Financialization refers to the process of turning assets, including natural resources or social outcomes, into tradable financial instruments, often in secondary markets. Blockchain introduces new forms of financialization, including hyper-liquid tokenized assets and secondary markets for environmental commodities. These innovations have mixed potential: while they can increase market efficiency, they can also incentivize speculative trading rather than real-world ecological restoration. For example, carbon tokens can be used to fund genuine carbon sequestration projects or simply be traded for profit, detaching financial activity from physical impact. The challenge for ReFi is to ensure that financialization remains in service to regeneration rather than undermining it. Can blockchain be used to measure and track real-world ecological outcomes without resorting to speculative trading and profit-maximizing logic?”

There is no shortage of research documenting the detrimental real-world impacts of financialization under the guise of sustainable finance. Clapp & Isakson (2018) demonstrate how financialization of the global food system “exacerbates the existing imbalances of power and wealth; increases economic and ecological vulnerabilities; and presents a direct challenge to the ability of food systems to provide livelihoods and food security over the long term.” Osborne and Shapiro-Garza (2018) show how carbon markets and financialization of forests has led to the “prioritization of exchange value over use value of land, reducing both livelihood security and biocultural diversity; engendered internal conflicts between carbon producers and local authorities, undermining traditional governance structures and practices; and negatively affected women’s access to fuel wood”. And Merk et al. (2022) highlight the risks of financialization for the blue economy given investors are fixated on carbon, and “accounting only for CO2 storage favors fast-growing monoculture reforestation over mangrove preservation”.

Financialization drives perverse incentives that can destabilize entire economies, societies, and ecosystems. According to Epstein (2005), economists and policymakers are “unwilling to confront the central problem created by financialization: speculative and excessively liquid financial flows that create debt-laden balance

sheets, overly short-term perspectives, volatility and mispricing of important asset prices, subsequent misallocation of resources and unstable economic growth.” Given that DeFi can reach even deeper into the real economy than TradFi, creating more liquid and fungible assets for market transactions or loan collateral (Ge, 2022), an exponential increase in financialization is inevitable over coming decades, matched by an equally exponential increase in the collateralization of nature.

These concerns are particularly pressing in the ReFi movement, where financialization risks intersect with the Global Commons. As Hermann (2021) warns: “the complexity of nature and natural processes means that human interference can cause chain reactions with dangerous outcomes. humanity can easily overstep the ecological limit without realizing it.”

While financialization has well-documented risks, some argue that financial tools—if structured correctly—can drive regenerative investment. For example, pooled liquidity models could channel capital into long-term regeneration projects rather than short-term speculation. The key challenge is designing financial instruments that reinforce ecological health rather than prioritizing investor returns.

3.2.3 Unique challenge: ReFi and the global commons

In TradFi, the common remedy to curb excessive financialization is regulation. Given that DeFi remains an unregulated space, government regulation cannot be relied upon to curb the rapid financialization and commodification of nature that the ReFi movement is at risk of unleashing. And so, the ReFi movement needs to consider how it might self-monitor and self-regulate to strengthen its ideological foundations, safeguard the integrity of the movement, and operate in service to the Global Commons. This means unlearning the neoclassical ideologies that have enabled us to surpass six of the nine (identified) planetary boundaries without noticing.

Neoclassical compliance in ReFi can take multiple forms: designing ReFi systems to provide financial returns to investors, operating within existing capital markets (e.g., tokenized carbon credits), or replicating market-driven incentives rather than shifting economic paradigms. The challenge is whether ReFi can create truly new structures that prioritize regenerative goals over financial profitability, or if it remains constrained by traditional investment models.

Importantly, financial profitability and regenerative impact are not inherently incompatible. Regenerative finance should not be framed as ‘anti-profit,’ but rather as a shift in how and why profit is pursued. The issue arises when financial profitability is prioritized at the expense of regenerative outcomes—often due to adherence to neoclassical economic structures that emphasize short-term returns, market efficiency, and capital accumulation over long-term systemic health. If ReFi is to avoid this trap, it must design financial mechanisms where profitability emerges as a byproduct of genuine ecological and social regeneration, rather than as the primary objective.

Only by becoming one with nature can humanity honor its commitment to serve and nurture the Global Commons. As Herman Daly foretold, unless we shift that fundamental paradigm “all the technical prowess and manipulative cleverness in the world will not

solve our problems, and, in fact, will make them worse” (Daly, 1992). This premonition has never been more relevant. The technical prowess and manipulative cleverness in the ReFi movement are beyond compare, as are the genuine intentions of all players in the space to solve the world’s problems. But unless players in the ReFi movement make some key paradigmatic shifts—from “anthropocentric” to “ecocentric”, from “more” to “enough”, from “ends” to “means” – they risk making matters worse.

Given it is the remnant neoclassical ideology underpinning many ReFi initiatives that poses the greatest risk to the Global Commons, the ReFi movement may want to consider what ideology it wishes to uphold. Herman Daly, who laid the foundations for Fullerton’s work in regenerative finance, passed away in 2022, so embedding his ecocentric values and ethics as the bedrock for the ReFi movement could be a beautiful and powerful way to honor his legacy.

While proponents of the ReFi movement addressed these critiques publicly to promote constructive dialogue (Curve Labs, 2022), the response was more defensive than constructive. Rather than leaning into the critiques to elucidate exactly where things are going wrong and how the movement could work to hold itself to account, the response cited a selection of well-established ReFi initiatives to disprove valid critiques that apply to many emerging ReFi initiatives. By focusing on what ReFi was doing, rather than what ReFi was being, the response failed to address one foundational truth: ReFi must operate from a different ideological foundation if it is to be truly regenerative.

This raises a fundamental question: if ReFi is to move beyond neoclassical constraints, what alternative models—grounded in living systems and ecocentric values—can it embrace to ensure real-world impact?

3.3 Unique value proposition: ReFi and the global commons

The ReFi movement could become a powerful ally for the Global Commons, particularly given blockchain’s capacity to enhance transparency, enable equitable access and distribution of benefits, and provide distributed governance mechanisms to support collaboration and cooperation between multiple diverse parties. Blockchain technology is capable of addressing many of the unique governance challenges presented by the Global Commons (Stern, 2011) including the sheer enormity of geographic and demographic scale; lack of visibility and awareness of the cumulative impacts at global scale; cultural and institutional heterogeneity and limited ability to learn and adapt effectively given the long timeframes required for regeneration; predictive difficulties due to the scientific complexity of resource dynamics; and knowledge sharing difficulties locally and at global scale.

However, while blockchain offers powerful governance capabilities, the effectiveness of ReFi depends on how these capabilities are applied in economic and financial structures. The design of ReFi initiatives determines whether they reinforce or challenge existing financial models, shaping whether ReFi truly serves regeneration or simply enhances market efficiency.

The way ReFi initiatives are designed determines whether they reinforce or challenge existing financial structures. Some projects seek to reform traditional markets, while others attempt to redefine economic

relationships entirely. For example, Toucan Protocol’s carbon tokenization demonstrated how blockchain can bring transparency to carbon markets, yet it also faced challenges regarding credit quality and additionality. In contrast, projects like Celo’s nature-backed currencies attempt to embed regenerative logic directly into economic systems. These cases highlight the spectrum of ReFi initiatives—from those optimizing existing financial markets to those redefining economic incentives altogether.

As technological design and application is largely determined by the focus and ideology of the humans involved in the process, the ReFi movement will be an incredibly powerful ally for the Global Commons if it is designed and applied in accordance with living systems principles. This means a fundamental understanding and adherence to the regenerative paradigm. Given the existential threat that mismanagement of the Global Commons poses for humanity, it is imperative that blockchain practitioners involved in the ReFi movement can see and understand the difference between sustainable and regenerative approaches. Never has this practical and applied understanding of the regenerative paradigm been more critical than in the face of the rapidly evolving DeFi and ReFi movement.

This perspective article highlights the need for a structured evaluation of ReFi initiatives to better distinguish between those that are truly regenerative and those that primarily optimize financial markets. Recognizing this need, a forthcoming study—developed as a direct extension of this article—presents a framework for assessing whether a ReFi initiative genuinely aligns with regenerative principles. This framework evaluates key dimensions such as economic model, governance structure, financialization approach, and impact measurement—offering the industry a means of self-regulation to uphold regenerative integrity. While this article does not empirically apply such a framework, its findings suggest that the ReFi movement must engage more critically with these distinctions to ensure it does not replicate extractive financial models under a new label.

4 Final remarks

At this moment in history, technological advancement, the impetus for change, and human consciousness are coinciding at a level that both enables and necessitates systemic transformation. The ReFi movement could be instrumental in leading that transformation. However, if it does not maintain vigilant focus on its ideological foundations and self-regulate to maintain the ecocentric integrity of the movement, the rapid escalation in financialization that DeFi enables may see the movement escalate the very degradation and destruction that ReFi is seeking to address. And that would be catastrophic. We can no longer afford to make the same mistakes as the past. The Global Commons, the natural systems that support life on our planet, are literally the final frontier.

Looking ahead, there are critical questions that must be addressed: Can ReFi separate measurement from commodification? How can blockchain facilitate ecological accounting without reinforcing extractive markets? If ReFi is not structured for financial returns, where does capital come from? What new mechanisms could emerge beyond tokenization? The answers to these questions will determine whether ReFi pioneers a truly regenerative financial system or merely replicates the extractive structures it aims to replace.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Author contributions

KB: Writing—original draft, Writing—review and editing.

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