REDESIGNING FINANCE IN SERVICE OF LIFE

Connecting communities, technology and institutions to serve a thriving world.

ostara ReFi DAO Leverhulme Centre for Nature Recovery UNIVERSITY OF OXFORD

FOREWORD

When I studied economics at university I learned nothing insightful about finance. Like money, it was treated as a neutral flow, allocated to maximize returns. But fast forward to these deeply ruptured times and it's clear that finance has been writing the defining story of our era – too often combining the sharp exploitation of those drawn into its dynamics with the harsh exclusion of those who fall beyond its uses.

It was thanks to the Belgian currency theorist and designer, Bernard Lietaer, that I learned to think far more incisively about finance. Bernard used to say that money is to us like water is to fish: so much an intrinsic part of our environment that we hardly notice it, let alone ask how it works, or reflect on how it shapes our lives. He saw himself as a flying fish that had managed to leap out of that water to take a 'bird's eye view' of the financial flows in which we all swim.

With this birdy eye, Bernard pointed out that the financial monoculture we currently swim in is just one of many possible designs – and one that fails to respect and respond to the diversity of communities and landscapes into which resourcing for regeneration so urgently needs to flow.

He also showed that all finance is designed, and its design can be decisive. Altering key traits – including who has the power to issue finance, the character it is given (such as bearing interest or demurrage), and what it can be used for – results in profound shifts in power, agency, and the nature of value. Couple that with today's digital infrastructure capabilities and a realm of radically different financial design possibilities opens up.

This fascinating paper by the team at Ostara plays an extremely timely and valuable role in explaining and furthering these much-needed possibilities. By enabling many more of us to leap out of the water – even if momentarily – to realise that today's dominant design of finance is but one of many possible designs, it draws us into asking profound questions. How can finance be redesigned as a flow that enables people and places to thrive? What kinds of financial returns – if at all – are aligned with restoring living systems? And how can Web3 best be put to work for the web of life?

None of these answers will be found in theory: they will all emerge through the careful yet courageous relational practice that this paper invites. So read on and make the leap.

Kate Raworth
Author of Doughnut Economics

Authors

Monty Merlin Bryant
Digital Transformation Lead, Ostara; Co-Founder, ReFi DAO

Alice Leguay
Senior Fellow, Finance Transformation, Ostara

Justin Adams
Co-Founder and Managing Director, Ostara;
Honorary Research Fellow, Leverhulme Centre for Nature Recovery

June 2026

PREFACE

I have spent much of the last 25 years working in and around mainstream finance for climate and nature. There has clearly been real progress, commitment and innovation. But, like many, I have also felt the frustration of a system that still too often asks life to fit the categories of finance, rather than asking how finance might be redesigned to serve life.

Working with Monty Bryant and Alice Leguay has helped me see an important possibility more clearly. Emerging digital coordination infrastructure, including Web3-enabled tools, can be used not simply to make existing finance faster or more efficient, but to redesign how value is recognised, how rights are held, how capital moves and how decisions are governed. That possibility can be transformative in reconnecting finance to the people and places it should be serving.

The practices and examples we describe in this paper, and the patterns we see forming, have been developed over many years by pioneers of regenerative finance. The principles beneath them are older still, carried by many Indigenous peoples and spiritual traditions that never forgot that our lives and economies are deeply entwined with the living world. Our aim is to help make this emerging pattern visible to a wider audience, especially those working in and around mainstream sustainability, finance, philanthropy and public policy who feel the strain of the current economic system, but are not yet sure where else to stand. The work can feel heavy. The problems are well analysed. The pressures are growing. Yet precisely because the limits of the current system are becoming harder to ignore, this is a moment to reclaim our imagination.

What follows is a beginning: an invitation to see what is already taking shape, to dream beyond the limits of the present system, and to join the work of redesigning finance in service of life.

Justin Adams

EXECUTIVE SUMMARY

This paper explores how finance can be redesigned to serve the regeneration of Earth's ecosystems and the communities that steward them. It shows how digital coordination infrastructure - including Web3 - can support 'rooted regenerative finance'. But it argues that this potential depends on building bridges between place-based stewards, digital pioneers and institutional changemakers so that they can come into 'right relationship' for catalysing a thriving future.

Finance: undermining life, by design

For millennia, finance has acted as a powerful coordination tool for cooperating across distance and time, from enabling enterprise and trade to investing in shared infrastructure and public goods. But its dominant logic especially in recent decades, has led to a hyper-financialised economy that now shapes public priorities, delays environmental action, and diminishes society's collective imagination of what is possible.

This process of financialisation has compounded the wealth of the already wealthy, driving extreme inequalities within and between nations. And it has heavily skewed financial capital into industries that deeply undermine the integrity of Earth's living systems - while leaving communities worldwide without the resourcing needed to restore and steward the health of their local lands and people.

The failure of finance to invest in solutions to these social and ecological crises is not due to a lack of capital available in the world - far from it. Instead, it is a matter of the deep design of capital itself, including: who has the power to issue finance, what gets recognised as value, where accountability runs, who capital actually reaches, and what it expects as a return.

New technologies: new possibilities

Fast-converging forms of digital infrastructure - Web3-enabled systems, underpinned by blockchain and connected with artificial intelligence, sensing networks, distributed-governance tools and more - are now creating unprecedented opportunities to reshape what finance can be and do. The outcome of their use will be determined by who finances and governs these technologies, what purpose their builders ask it to serve, and hence which financial structures it puts into operation.

Web3-enabled digital infrastructure can be used simply to accelerate speculation and further concentrate existing power. Much institutional adoption to date has focused on efficiency and settlement speed, as seen in the work of BlackRock, JPMorgan, Visa and other major corporations.

Crucially, however, this same cluster of technologies can be harnessed for very different purposes: it can shift the balance of power, making financial flows transparent and accountable to the communities affected, moving capital directly to the stewards the system overlooks, and opening up new approaches to ownership, governance and participation that, until now, were out of reach.

The potential of regenerative finance

The transformative possibilities of this digital coordination infrastructure can be directed to serve regeneration, renewing And so instead of asking, 'how can nature be made investable for capital?' it becomes possible to ask, 'how can finance be designed so that capital can serve nature?'. Answering this question is giving rise to forms of 'rooted regenerative finance': financing models designed to be relational, locally led, distributive and long-term rather than transactional, detached, extractive and short-term.

"Instead of asking, 'how can nature be made investable for capital?' it becomes possible to ask, 'how can capital be designed to invest in nature?'."

The possibilities of these new models of finance are already being explored in practice by pioneering initiatives ranging from coffee-farming cooperatives in Latin America to forest regeneration in British Columbia. These early examples are still learning and evolving, but importantly, they demonstrate a design of finance that is beginning to work very differently in its relationship with place-based stewards of the land. Across multiple case studies, five design patterns recur: value rooted in place; rights shared with stewards; accountability close to outcomes; capital that circulates; and returns aligned with what living systems can sustain.

The flow of capital into these new financing models can spread through replication with integrity: the same patterns taking root in new places, each locally led and adapted to its own context. Rather than the traditional pressure on small initiatives to "scale up" to match what finance requires, often beyond what they can sustain, a network approach empowers individual projects to right-size themselves while the core patterns and learnings are spread. New digital systems make this cheaper and more feasible than ever before.

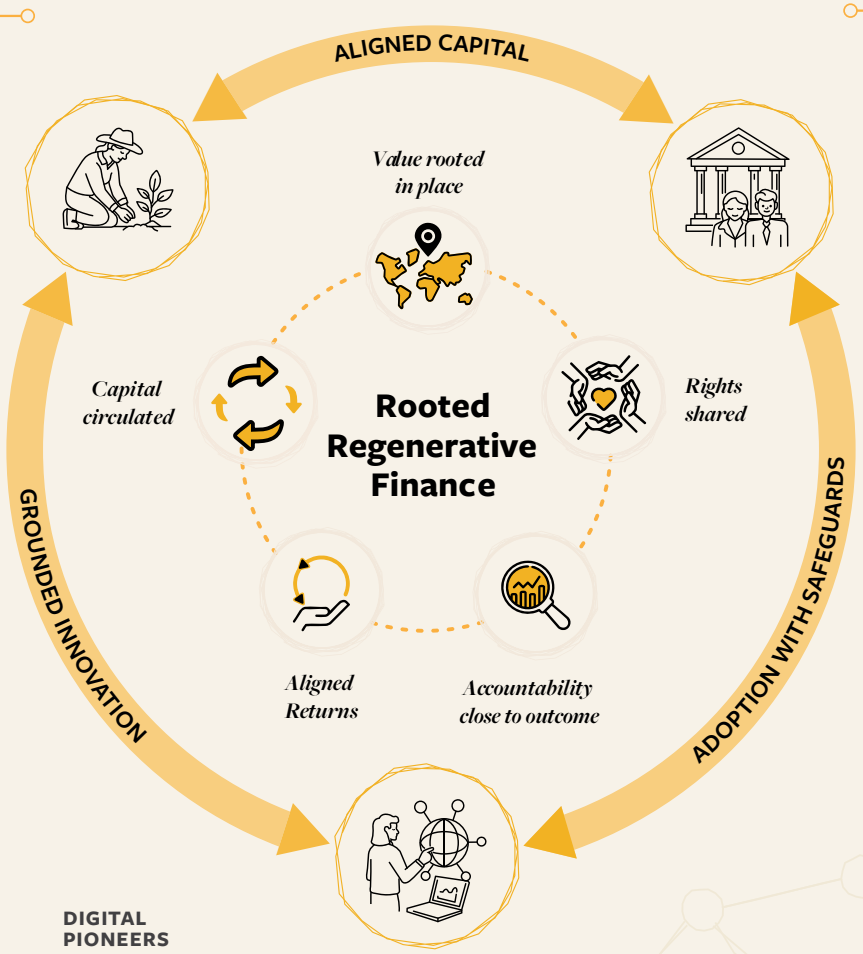
Bridging worlds for finance in service of life.

PLACE-BASED STEWARDS

- Community context
- Ecological knowledge
- Long-term care

INSTITUTIONAL CHANGEMAKERS

- Capital at scale
- Coordination capacity
- Systemic influence



DIGITAL PIONEERS

- Open infrastructures
- Knowledge platforms
- Coordination tools

The work ahead: bridging worlds

The future success of these new financing models depends upon connecting three groups of actors who each operate in their own world, with distinct languages, relationships and ways of working: place-based stewards, institutional changemakers, and digital pioneers. Collaboration across these worlds is prone to pitfalls, the most familiar being mainstream finance squeezing regenerative initiatives back into its old confines, undermining their essence in the process.

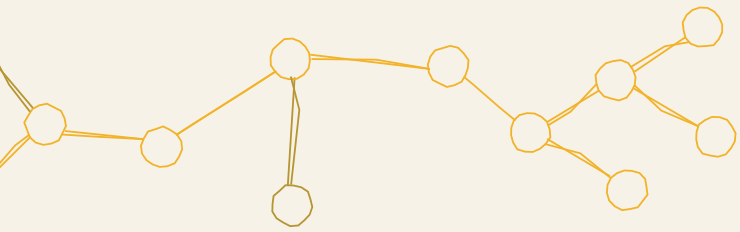
Instead, the work is to build high-integrity bridges between each of these actors: grounding digital innovation in local context with place-based stewards; helping institutions adopt new infrastructure with safeguards against capture or misuse, thereby directing patient, aligned capital to the stewards and communities doing the work. Together, these open the way to finance designed to serve life.

1. FINANCE AS DESIGN

Finance is one of humanity's most powerful coordination tools. For thousands of years, it has helped people cooperate across distance and time, making possible trade, enterprise, homes, infrastructure, public institutions, innovation and many of the advances of modern life. The problem is not finance itself. The problem is the range of assumptions, behaviours, structures and expectations - the logic - that underpins and characterises the current financial system.

Over recent decades, a hyper-financialised version of the economy has taken hold. Financial models, asset prices, discount rates, risk frameworks and return expectations have come to shape not only investment decisions, but also economic policy, public priorities and our collective imagination of what is possible. We have become trapped in a world of numbers that shapes almost everything, yet is fully understood by very few.

This system has been remarkably effective at compounding financial wealth, especially for those who already own financial assets. But it has also driven deepening inequality, locked societies into patterns of overconsumption, and weakened the long-term resilience of the living systems on which every economy ultimately depends.



Each year, around $220 billion flows towards nature-positive outcomes, while over $7 trillion continues to flow into activities that degrade nature[1]. Development finance reveals a related imbalance, with $4 to $6 trillion in unmet annual needs as aid budgets contract and public capacity weakens[2].

Finance is a human construct. It is made of rules, institutions, instruments, incentives and stories about what we value and who gets to decide. That matters because it means that what has been designed can also be redesigned.

In our earlier work on reimagining nature finance, we argued that closing the nature finance gap is not enough if the underlying design of finance remains unchanged[3]. That paper focused on nature, but it opened a wider question: not simply how to mobilise more capital for a particular outcome, but how finance itself would need to change if it were designed in service of life. What are the conditions, relationships and infrastructure through which a different financial logic could begin to operate?

This question extends across development finance and many other public goods: climate adaptation, water security, food systems, community resilience, health, ecological restoration and the wider conditions that allow people and places to thrive. These are areas where value is often long-term, collective, relational and rooted in place. Yet they are being forced into financial architectures built around individual return, standardisation, distant ownership and short-term risk management.

Markets and risk-return frameworks can be powerful when ownership, revenues and exchange are clear, potentially improving allocation decisions and helping capital to move at scale. But many of the things now most urgently needed do not behave like individual investments. They depend on relationships, stewardship, trust, care and collective resilience. Markets have a role, but market dynamics alone cannot carry the work of restoring public goods, living systems, and community wellbeing.

Designing for life with regenerative finance

Current efforts to make nature investable, such as ecological asset markets, have brought real progress: greater awareness, better measurement and integrity, and gradually increasing capital flows. Some activities that support nature, development and community wellbeing can generate revenues and attract investment within the current system.

But these markets also reveal the limits of trying to fit living systems and public goods into existing categories. The strain is also showing up as a legitimacy crisis: across carbon markets, development finance and public transition plans, those most affected have too little authority over the systems making claims about them. What can be priced becomes what is valued. What can be standardised becomes what is scaled. Forms of stewardship that are relational, local, long-term, culturally embedded or collectively governed are often made invisible by the very instruments put in place to finance them. The deeper work of restoring ecosystems, strengthening communities and building long-term resilience does not conform neatly to individualised risk-return models.

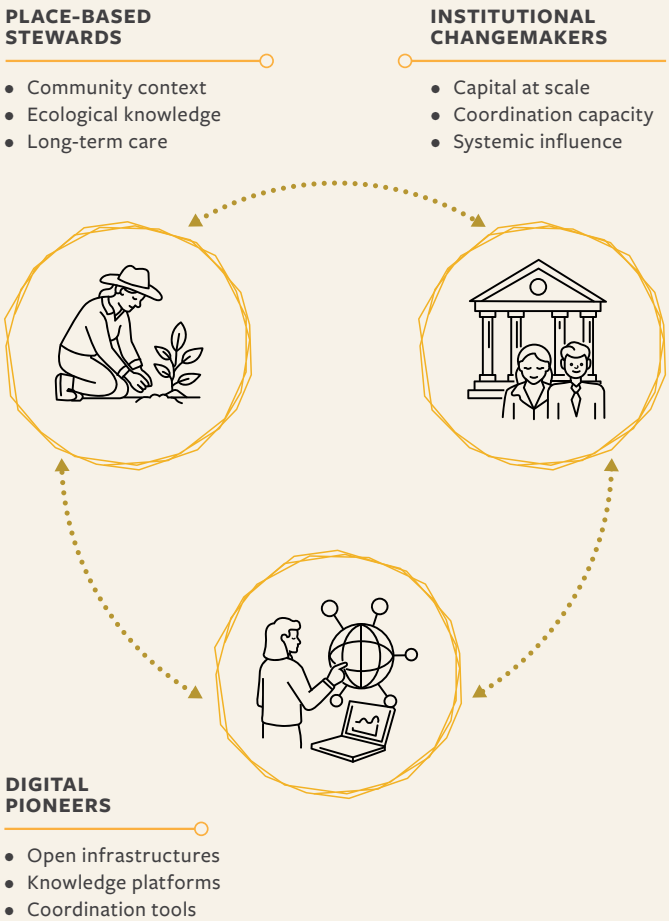
"Designing regenerative finance calls us to deeply consider: Who owns? Who decides? What counts as value? Where does accountability run? Who does the capital reach? What is demanded in return?"

1 UNEP, State of Finance for Nature 2023
2 OECD, Global Outlook on Financing for Sustainable Development 2025
3 Designing for Life: Reimagining Nature Finance

Regeneration is not simply about doing less harm, nor only about restoring what has been damaged. It is the ongoing renewal of the conditions that allow life to thrive: healthy ecosystems, capable communities, meaningful livelihoods, reciprocal relationships and the capacity to adapt over time. Applied to finance, this shifts the question from "how can nature or social value be made investable?" to "how can capital, ownership, governance and accountability be designed to strengthen the living systems they depend on?".

Regenerative finance, in this sense, is not a fixed asset class or a single methodology. It is an emerging design orientation: finance that is relational rather than purely transactional, distributive rather than extractive, rooted in place rather than detached from context, and long-term rather than governed only by short-term return. This is why designing regenerative finance calls us to deeply consider: Who owns? Who decides? What counts as value? Where does accountability run? Who does the capital reach? What is demanded in return? The rest of this paper explores these questions in relation to the digital infrastructure, human relationships, and financial structures that need to take root.

Figure 1: Three Actors to Shape a New Financial Future



Three actors for a different financial future

Three groups of actors are especially important in prototyping, developing and scaling regenerative financial architectures.

Place-based stewards are local communities, cooperatives, farmers, Indigenous peoples, landscape partnerships, civic organisations and others whose lives and work are rooted in specific places. They bring ecological knowledge, trust, governance practice and long-term relationships with the living systems at stake in both urban and rural settings. Their distinctive role is to hold the contextual intelligence that finance often lacks: understanding local histories, relationships, needs, risks, cultures, ecologies and responsibilities. They know what regeneration means in practice and in their place, not as an abstract outcome but as a lived relationship with land, water, community and future generations. The dominant system has too often treated them as beneficiaries, delivery partners or data sources, rather than as designers, owners and governors.

Institutional changemakers are working within or alongside established institutions, inside public agencies, philanthropic bodies, development finance institutions, corporates, investors, NGOs, research bodies or policy organisations. They bring relationships, capital access and resources, and the mandate and legitimacy of the existing system. As changemakers, they do not only represent the institution, but work at the edge of inherited systems, pushing towards regeneration: translating new models, opening internal pathways, building trust, shifting risk perceptions and helping organisations support different ways of creating value.

Digital pioneers are building and adapting frontier digital coordination tools, platforms and infrastructures, from Web3-enabled financial rails, AI and data systems, verification tools and open protocols to fintech products, analytics platforms and digital public goods. They bring technical, design and product capability, enabling communities, funders, and institutions to govern and coordinate in new ways. They can help to make value, capital, decisions, claims and accountability move more visibly across organisational boundaries, and support new forms of shared ownership and oversight. At their best, they make new forms of finance, governance and verification usable in practice.

None of these actors can build a new financial system alone. Their potential is realised when the right relationships, trust and capacities are developed between them. This is the work of bridging worlds, described in detail in section 4.

2. NEW DIGITAL INFRASTRUCTURE: NEW POSSIBILITIES

If the outcomes of finance are shaped by design choices, the digital infrastructure it runs on matters. The systems through which money moves, value is recorded, rights are held, and decisions are governed are not neutral. They determine who can participate, what is visible, how trust is established, and where power sits.

Fast-converging forms of digital infrastructure - including blockchain networks, open data, sensing systems, artificial intelligence, and participatory governance tools - are opening up new possibilities for designing such systems. Used with the intent of regenerative design, they can enable finance to become far more transparent, accountable, adaptive and connected to real-world outcomes. Bolted-on without such design intent, however, they reproduce extractive patterns: proprietary lock-in, predatory data practices, and new forms of technological colonialism.

This paper places particular focus on the potential of Web3-enabled digital coordination infrastructure, which is explained in the sidebar. We focus here for two reasons:

Entering mainstream finance. Web3 tools that were, only a few years ago, largely speculative and marginal, are now being embedded in global finance, moving money and assets at scale across borders and institutional boundaries. Tokenised real-world assets exceeded $30 billion in mid-2026, a fivefold increase in three years, while stablecoins exceeded $320 billion in capitalisation[4]. Major institutions, governments and community-led projects are all now building on this infrastructure in parallel.

Rewriting the rules of finance itself. Change at the infrastructural level can unlock new possibilities for the financial systems built on top of it. Web3-enabled infrastructure makes it possible to experiment with financial systems in which ownership is more distributed, flows are more transparent, conditions are embedded before money moves, and governance can operate across organisational boundaries. Some of the earliest innovations in this field were driven by a desire to decentralise power, to move away from systems in which one institution holds the ledger, defines the rules and decides what everyone else must trust. Used with regenerative intent, this carries significant capacity to challenge the logics currently encoded in mainstream financial systems: who owns, who decides, where accountability runs, and who capital reaches.

"Decentralised architecture does not automatically produce decentralised power."

Reinforcing old systems or reaching for transformation?

To date, Web3 may be best known for its role in cryptocurrency speculation, fraud and hype, making it easy to dismiss. That would be a mistake. Behind those headlines is a set of capabilities now being adopted by major institutions and adapted by leading community-led projects.

Most institutional adoption of digital infrastructure reproduces the dominant system's operating logic. BlackRock, JPMorgan, SWIFT, Visa, and others are now building a range of financial products and market infrastructure on Web3 rails[5]. While gains are made in efficiency, transparency, and settlement speed, the underlying patterns of the dominant system remain intact. Decentralised architecture does not automatically produce decentralised power: a system running on a public blockchain can answer to interests far removed from those of the communities it claims to serve.

Tokenisation.
An asset, right or claim recorded on a blockchain: a Treasury bond, carbon credit, real estate share or unit of community labour, held as a token that can move and settle on an open ledger.

Stablecoins.
Tokens pegged to a fiat currency, most often the US dollar, backed by reserves of cash and short-term Treasuries. They behave as digital cash on Web3 rails: settling in seconds, costing very little to move, and working across borders without correspondent banking.

Cryptocurrency.
Digital assets such as Bitcoin or Ether that originate on a blockchain and trade against fiat currency and each other. Cryptocurrency is the most publicly visible use of Web3 infrastructure, but it is one use among many.

4 RWA.xyz, Tokenized Real-World Assets (dashboard, accessed 2026).
5 SWIFT, "Cross-Border Settlement on Public Ethereum" (2025); J.P. Morgan, Kinexys; BlackRock, BUIDL; Visa, Stablecoin Settlement.
6 WFP, "Building Blocks.".
7 Wyoming Stable Token Commission, "Frontier Stable Token (FRNT)."

A smaller set of institutions is pushing Web3 infrastructure further, not just for operational gains, but to shift who decides, how capital flows and what it ultimately funds. The World Food Programme's Building Blocks platform has distributed over $760 million in direct payments to displaced people across 40 million transactions[6]. Wyoming launched the first state-issued digital dollar in the US, with reserve income flowing to public education rather than private issuers[7]. In December 2022, UNICEF partnered with a leading Web3 crowdfunding platform to run a community-driven capital allocation mechanism that gives more weight to projects with broad grassroots democratic support[8]. UNDP has gone further. Its Blockchain Academy trains agency staff to build internal blockchain capacity across 170+ country offices[9]. Its SDG Blockchain Accelerator supports a growing pipeline of blockchain pilot projects, spanning national carbon registries, tokenised marketplaces, and commodity traceability platforms, projected to reach over 80 pilots by the end of 2026[10].

"The question is not whether the technology is good or bad, but what logic it carries, who governs it, and what relationships and outcomes it serves."

As set out in the sidebar, the wider shift is not limited to Web3. Several of the case studies in this paper depend on the convergence of blockchain, digital public infrastructure, open data, sensing, AI and participatory governance. Others draw on different combinations across the wider field. Web3 is therefore not presented here as a single answer, but as one important strand in a broader transformation of coordination infrastructure.

What ultimately matters is not the infrastructure itself, but what that infrastructure enables. At its best, it can make it easier for governance to be embedded before money flows, for capital to move more directly to stewards and communities, for accountability to be shared across participants, and for people closer to the outcomes to define value on their own terms. It can make visible who decided, who benefited, what was funded and where the value went. The question is not whether the technology is good or bad, but rather what logic it carries, who governs it, and what relationships and outcomes it serves.

8 UNICEF Office of Innovation, "Quadratic Funding Pilot with Gitcoin" (2022).
9 UNDP, "UNDP Takes Its Blockchain Academy Global" (2024).
10 UNDP, "New Tech, New Partners: Transforming Development in the Digital Era" (2024) UNDP, "Digital Public Infrastructure for Green Transitions" (blog)

Digital Coordination Infrastructure
In this paper we use 'digital coordination infrastructure' to describe a family of digital systems that enable new forms of coordination across institutions, communities and capital: the 'rails' through which identity is established, payments are settled, value is recognised, claims are verified, and governance is exercised. It is a layered field of converging strands rather than a single technology.

Web3 refers to a set of digital infrastructures that let multiple parties track transactions, hold assets and govern decisions on shared infrastructure. Today's financial rails depend on chains of trusted intermediaries - including correspondent banks, exchanges, custodians and clearing houses - each keeping their own ledger and reconciling against the rest. Web3 replaces that complexity with blockchain networks such as Ethereum, Stellar or Solana, where many parties record on one tamper-resistant ledger, open across organisational boundaries and independently verifiable. Rules of exchange, ownership and governance can be written in as code that runs automatically, commonly called 'smart contracts'. On top sit financial tools: digital payments, lending facilities, markets and community-governed treasuries.

Other strands also shape this field.
Digital public infrastructure (DPI) describes shared rails for identity, payments and data exchange, usually deployed at country or regional scale.

Open data, shared protocols and digital public goods (DPGs) - meaning software, datasets, models and standards held as commons rather than as proprietary assets - let different systems interoperate without each being rebuilt from scratch.

Sensing networks (satellites, ground sensors, bioacoustics, the Internet of Things) generate the real-world measurement other layers depend on, and once that data runs through shared ledgers it becomes verifiable at far lower cost, an approach known as **digital measurement, reporting and verification (MRV or dMRV)**.

Participatory and civic governance platforms make collective deliberation, decision-making and allocation possible across distributed groups.

AI systems add interpretation, synthesis and sense-making at speed, woven through every other strand. These layers converge with Web3, and, depending on design choice, sometimes substitute for it.

3. ROOTED REGENERATIVE FINANCE

Some of the most interesting signals for a new financial logic are emerging beyond the edges of the mainstream system: from communities, cooperatives, ecological stewards and technologists working far closer to place.

These initiatives are often described as examples of 'regenerative finance'. That term has become crowded and contested. At times it risks being co-opted back into the existing system: the same instruments, ownership patterns and return expectations, with ecological language added on top.

In this paper, we focus on a particular expression of it: **rooted regenerative finance**. By this we mean finance whose design is rooted in place, relationship and stewardship. Its purpose is not only to fund positive outcomes but to change the relationships through which finance operates, so that value, rights, accountability, capital and returns are determined much closer to the people and living systems producing those outcomes.

Digital coordination infrastructure can help make this possible, but only when used in service of a different purpose. The point is not the technology itself but whether the infrastructure helps to share power and rights with stewards, enable communities to define what matters, anchor accountability in place, allow capital to circulate rather than accumulate, and align returns with what living systems can sustain.

Table 1 sets out this shift as a series of finance design patterns: from the tendencies of today's dominant finance to the design choices that rooted regenerative finance seeks to realise.

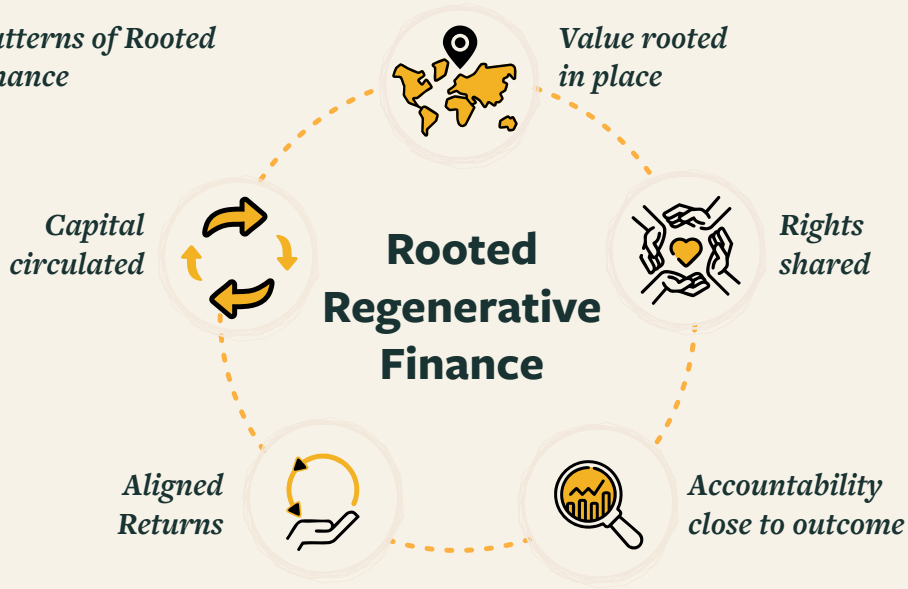
Figure 2 brings these five patterns together as a simple visual frame. They are not proposed as a fixed definition of rooted regenerative finance, but rather as design patterns that recur throughout the examples that follow. Each case makes one pattern especially visible, while also revealing elements of the others.

The five examples below are still small, learning and evolving. No single one yet carries the full potential of design. But together they show that rooted regenerative finance is not only an aspiration: it is already being piloted in practice.

Table 1. Finance design patterns: from dominant finance to rooted regenerative finance

Dominant finance tends to...	*Rooted regenerative finance seeks to...*
Isolate value. Assets are narrowly defined, standardised and stripped from context.	**Root value.** Value is defined closer to the people and landscapes producing it.
Concentrate rights. Power, ownership, and decision-making sit with those holding capital.	**Share rights.** Power, ownership, and decision-making held jointly giving stewards real authority over what is financed.
Pull accountability outward. Reporting runs to investors, regulators and distant institutions.	**Hold accountability close.** Outcomes are visible and answerable to the communities and living systems affected.
Concentrate capital. Capital pools around large, formal counterparties, while each additional layer adds cost, delay and control.	**Keep capital circulating.** Capital reaches - and may even be issued by - smallholders, stewards and communities.
Demand extractive returns. Return expectations are set by outside benchmarks, pushing extraction faster than land or community can renew.	**Align returns with place.** Rate, form and timing of return follows what the system can regenerate, and is patient, bounded or partly non-financial.

Figure 2. Five Patterns of Rooted Regenerative Finance



1. **Regen Network: value rooted in place.** Conventional carbon and biodiversity registries vest authority over ecological value in the registry itself. External experts then write methodologies enabling standardisation of credits for pooling and trading. Regen Network uses its blockchain and open registry to place authority with the communities producing value, letting stewards define what ecological integrity means for their own landscapes, from Biocultural Jaguar Credits with the Sharamentsa Achuar in the Ecuadorian Amazon to Obuntu's Units of Care across Uganda's Kiwaatule wetland. Since 2021, Regen Network has facilitated ~$3M in realised credit sales[11].

2. **Kwaxala: rights with stewards.** Colonial land tenure grants the right to extract. Kwaxala, founded by the Kwiakah First Nation in the Great Bear Rainforest, acquired extractive Tree Farm Licences on the British Columbia coast and converted them into a 'right to regenerate'. The Nation keeps full ownership and decision-making, while investors participate through a non-controlling, rules-based revenue-share protocol over verified ecosystem-service revenues, rather than seeking ownership or control. Asset value rose roughly sevenfold per hectare, returning seven to eight times baseline lumber revenue to the Nation since May 2024.

3. **hum.community: accountability close to outcomes.** Most funding models concentrate the final say with capital through veto rights, reporting and grant conditions. hum.community - a participatory budgeting platform piloting in Aotearoa New Zealand, Australia and the UK - inverts that around a shared constitution: communities hold decision-making power, partners manage compliance and escrow, and funders see how decisions and outcomes unfold[12]. Governance runs continuously rather than episodically, evidenced by real-time data and capital flows.

4. **Grassroots Economics: community capital that circulates.** Conventional finance assumes exchange begins with money Grassroots Economics, a Kenyan foundation working in low-income communities, starts elsewhere: local people in communities make promises of goods, labour, services and care visible as redeemable vouchers, then pool and exchange them through locally governed rules. It is an ancient pattern now running at network scale, across paper vouchers, phones and shared digital ledgers. As of April 2026, over 26,000 people have registered across almost 300 active pools on the live network, with more than 288,000 transactions recorded, all without the need for a bank account[13].

5. **EthicHub: aligned returns.** Smallholder coffee farmers across Latin America can be priced out of formal banking and forced to borrow from informal lenders at 80 to 100 percent interest rates. EthicHub uses Web3-based stablecoin lending and smart contracts to route global capital to farmers at 8 to 10 percent, drawing on local community trust networks and a crowd-pooling fund that absorbs risk. Default rates have stayed below 3 percent across more than 600 loan projects since 2018[14].

See Appendix for a deeper view of all five case studies.

The challenge now is to grow these models without distorting them. That means growth through spread, not scale. This is less about making single projects ever larger, and more about helping patterns take root with integrity in new places. Each initiative needs to remain locally led, with the relationships, governance and capital structures required to hold its own context.

11 Fundación Pachamama / Regen Network, "Biocultural Jaguar Credits" (2024); Obuntu Resets; Regen Network, lifetime credit-value figures (CIO, May 2026).
12 hum.community / The Wellbeing Protocol; Regen Melbourne, "Trialling Distributed Grant Making" (report)
13 Sarafu Network on-chain data (Dune Analytics, Apr 2026).

4. BRIDGING WORLDS: THE CONNECTIVE WORK

From edge experiments to a different financial architecture

The examples in Section 3 show that a different financial logic is already beginning to emerge. But it remains fragile. These models are often small, scattered and vulnerable to being pulled back into the assumptions of the system they are trying to change.

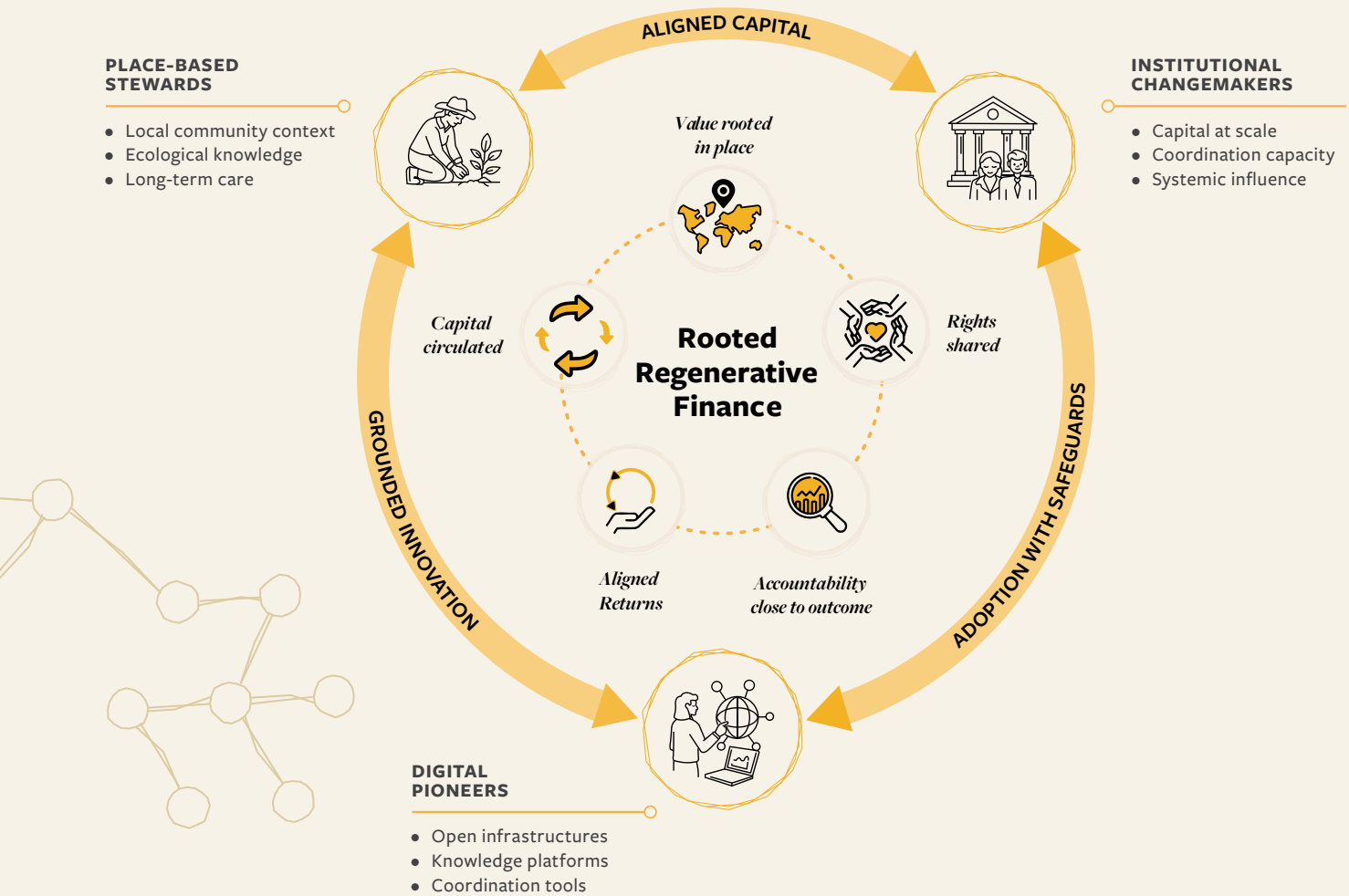
If rooted regenerative finance is to become more than a set of edge experiments, then bridges need to be built between actors who too often sit far apart: the place-based stewards, institutional changemakers and digital pioneers.

This is not simply about connecting stakeholders. It is about creating the shared relational intelligence through which new alliances can form, inherited assumptions can be challenged, and capital, technology and governance can be redesigned around the five finance design patterns described in Section 3: value rooted in place, rights shared with stewards, accountability close to outcomes, capital that circulates, and aligned returns.

Figure 3 brings the argument together. The three actors introduced in Section 1 sit around the outside, with the five patterns of rooted regenerative finance at the centre. The bridges between these actors describe the connective work required for this transformative financial architecture to emerge.

More and more people are now recognising that the current financial system is not serving the world we need to create. Many are asking where to begin in making change. This paper is not providing a single blueprint to scale everywhere. That would miss the point. Rooted regenerative finance will take different forms in different contexts. But the approach below offers a powerful way to begin: by bringing the right actors into relationship with one another and creating the conditions for new financial architectures to emerge.

Figure 3: Bridging worlds for finance in service of life.



Building Three Bridges

The bridges between the three key actors each play a different role in helping rooted regenerative finance become feasible and funded. Together, they describe the connective work needed between each of the actors: grounding innovation in place, and ensuring new digital infrastructure is adopted with safeguards, in order to deliver aligned capital to place-based stewards. None of these bridges is sufficient on its own. The potential lies in the relationships between them: where old assumptions are challenged, new alliances form, and different designs of finance can begin to emerge.

Bridge 1. Aligned Capital:

Place-based Stewards <-> Institutional Changemakers

This bridge connects institutional capacity with place-based stewardship. It is about mobilising patient capital, investment, policy support, procurement, philanthropy, and other forms of support to strengthen the people and places doing the work on the ground.

The risk is that place-based initiatives become distorted by the old logic of financial capital, whose funding is conditional on metrics, reporting templates, timelines and assumptions about value that standardise, simplify or redirect local work. Stewardship is pulled into dominant assumptions about productivity, ownership, development, monetisation and scale, rather than strengthening the cultural, ecological and governance relationships already holding the work. Local autonomy is weakened as communities are pushed to translate themselves into the categories institutions already know how to fund.

The desired bridge is built of patient, trust-based support that strengthens local autonomy and the wider forms of capital already present in a place. Financial capital should serve and reinforce living, social, cultural, intellectual, experiential, spiritual and material forms of capital[15]. In practice, this means flexible and long-term funding, right-sized diligence, local governance, ownership and benefit-sharing, consent, and accountability that runs back to the people and ecosystems affected. It also means asking not only whether capital reaches a place, but whether the returns it requires are aligned with the living system's capacity, so allowing more value to be retained and circulated there.

Policy matters here: enabling conditions, procurement rules, guarantees, standards and public mandates can either force place-based work into old categories or create room for different forms of finance to grow.

Bridge 2. Grounded Innovation:

Digital Pioneers <-> Place-based Stewards

This bridge connects frontier digital capability with grounded practice. It is about translating real needs, local knowledge and stewardship priorities into tools that actually work in context. Place-based stewards understand the histories, relationships, risks, cultures, ecologies and governance practices that any useful infrastructure must respect. Digital pioneers leverage tools that can help make those relation-ships more visible, coordinate funding and decisions, verify outcomes, route value, reduce unnecessary friction and support shared ownership.

The risk is technological abstraction. Tools can be imposed rather than co-created. Local knowledge can be extracted as data. Cultural practices can be simplified into metrics. Communities can be asked to use systems that increase administrative burden, weaken existing governance or expose sensitive information. In the worst cases, digital infrastructure creates new forms of enclosure: data, value or decision-making power being captured by actors outside the place.

The desired bridge is built on steward-led and context-shaped innovation. Tools should respond to real needs, be co-designed with the people who use them, and respect local consent, culture, sovereignty and knowledge systems. This includes data governance, local ownership or control where appropriate, low-burden user experience, capacity building, and mechan-isms that strengthen existing relationships rather than replace them. Technology should meet the practice where it already is, helping it thrive without abstracting it from context.

"Technology should meet the practice where it already is, helping it thrive without abstracting it from context."

14 EthicHub (Bybit / Blockchain for Good Alliance PR, 2025)

Bridge 3. Adoption with Safeguards:


Digital Pioneers <-> Institutional Changemakers

This bridge connects digital infrastructure with institutional pathways. It is about how new tools and technology become usable and responsibly adopted in the systems where capital, policy, procurement, regulation and large-scale coordination decisions are made.

The risk is that institutions adopt Web3, AI, data or verification systems for their own efficiency, compliance, cost reduction, legal and financial risk management, or optics, while ignoring deeper questions of governance, ownership, consent and accountability. Transparency meant to hold power to account can shift towards monitoring those it was supposed to serve, and participation can become governance theatre.

The desired bridge is adoption with safeguards: digital infrastructure designed with accountability and purpose embedded from the start. The work is to build governance, rights and accountability into the system, so that technology supports a shift in who decides, who owns, what counts as value, where accountability runs and who benefits. In practice that calls for clear governance roles, community accountability, open standards where appropriate, data rights, benefit-sharing, human oversight, regulatory clarity, and protections against capture, misuse or proprietary lock-in. The point is not adoption for its own sake, but adoption that protects a deeper design intent.

Growing through replication, not scale

Achieving growth in the uptake of these financial models is less about making single projects ever larger, and more about enabling patterns to replicate with integrity in new places. Governance frameworks, implementation partners and protocols may travel across regions, but each site needs to remain locally led and free to adapt the pattern to its own context.

Capital is needed in multiple forms for this to happen. Early on, the work often depends on catalytic and philanthropic money willing to value relationships and governance before any financial returns are visible. As initiatives mature, the range of returns they can sustain may widen, from patient and partly non-financial, to returns aligned with the ecosystem's carrying capacity, alongside ecological and social outcomes. But the form of capital introduced must follow what the place can sustain, rather than a benchmark set elsewhere.

The task is not to scale one model, but to build the conditions in which many rooted models can become visible, credible and resourced without losing the relationships and governance that make them regenerative.

5. CONCLUSION: *Building the conditions for finance in service of life*

This paper has argued that the failure of finance is not a question of capital gaps. It is a question of design: what finance recognises, who holds power, where accountability runs, who capital reaches, and what kind of return is demanded.

The examples set out in this paper are early and imperfect, but they matter. They show that another approach is already being tested: one where value is rooted in place, rights are shared with stewards, accountability stays close to outcomes, capital circulates, and returns are aligned with what living systems can sustain.

The task now is to build the bridges that allow these patterns to grow without being absorbed back into the old system. Institutional changemakers, digital pioneers and place-based stewards each hold part of what is needed. None can do this alone.

That work begins with putting relationship, consent and governance in place before capital moves. It means technology grounded in context, capital shaped around stewardship, and institutions adopting new infrastructure with safeguards. It means growth through replication with integrity, not scale for its own sake.

Above all, it asks us to restore the relational intelligence that finance has too often ignored: the trust, grounded knowledge and shared purpose through which capital can be brought back into relationship with communities and the living world. The invitation is to begin: patiently, carefully and with enough courage to let a different financial architecture take root.

"The failure of finance is not a question of capital gaps. It is a question of design: what finance recognises, who holds power, where accountability runs, who capital reaches, and what kind of return is demanded."

APPENDIX:

Case Studies

REGEN NETWORK

Ecological Value Defined From Place

ECOLOGICAL CREDITING | INDIGENOUS & BIOCULTURAL KNOWLEDGE | OPEN PROTOCOL INFRASTRUCTURE

Regen Network moves the authority to define what counts as ecological value out of a single global registry and into the hands of the communities, cooperatives, and methodology developers actually producing the stewardship.

Founded in 2017 by Gregory Landua and Christian Shearer[17].

US-inc. 501c3 & Public Benefit Corp; deployments across Americas, Africa, APAC

regen.network

What it does

Regen Network is a purpose-built blockchain for ecological finance. Its open registry hosts peer-reviewed methodologies for carbon, biodiversity, marine and biocultural stewardship, each on its own terms rather than converted into a carbon proxy. Terrasos, a Colombian conservation-finance organisation, issues biodiversity credits scored on long-term habitat restoration; SeaTrees restores reefs and mangroves under a marine unit that the ecosystem itself defines. Neither translated its work to take part; both brought their own and ran it on Regen's shared public infrastructure. Communities, cooperatives, and methodology developers issue credits directly to buyers, with the rules for issuing, verifying, retiring, and trading held on a public ledger, not inside a private institution.

Anyone can register a new credit class, while a public peer-review process, run by Regen's science team with external partners, keeps every methodology visible and verifiable to anyone online. Governance runs across three entities: a public benefit corporation operates the software and registry, a foundation stewards 30 percent of the token supply for redistribution to Indigenous nations, farming communities, and environmental non-profits, and an on-chain consortium takes network-level decisions.

Key Facts

13 credit classes active across 5 credit types: Carbon, BioTerra biodiversity, Marine Biodiversity Stewardship, Umbrella Species Stewardship, and Kilo-Sheep-Hour.

59 registered ecological projects across forests, grasslands, wetlands and marine ecosystems, spanning Indonesia, Colombia, Peru, Cambodia, Kenya, Brazil, China, the US, UK, Australia, Ecuador, and Costa Rica.

~$3M in realised credit sales to date: $2.59M retired (174,225 credits over 70,419 on-chain events) plus $0.39M to KlimaProtocol, with a further $5.4M issued and held in inventory.[16]

83,000 audited hectares in the Regen Registry programme, with 500,000+ in the open registry (unaudited, third-party, or bridged).

Bridging with

Place-Based Stewards

The Sharamentsa Achuar community in the Ecuadorian Amazon launched the Biocultural Jaguar Credits programme with Regen in March 2024. They hold the territory - 10,000 hectares of jaguar habitat within 650,000-hectare titled lands - govern it through their own Life Plan, and train their field monitors, while Regen provides the registry, peer-reviewed methodology, and shared ledger. The credits cannot be resold, and 80 percent of revenue flows directly to the community. The programme is now extending to three further communities, around 40,000 hectares, on the same terms. Community assessment carries authority when it diverges from external scientific review.

Institutional Changemakers

Microsoft bought ~$1.26M of soil-carbon credits from Wilmot Cattle Company in Australia, routed directly through Regen's registry rather than the usual chain of brokers. The method was measurement-based, using satellite imagery and direct soil sampling, reviewed by three external scientists. Other biocultural-credit buyers include the Solana Foundation and the tequila brand Altos Planos Collective. The Regen Foundation is also prototyping three regional 'Ecological Institutions', across Aotearoa, East Africa and the Americas, to channel patient capital to Indigenous and community-led stewardship.

15 Roland & Landua, "The 8 Forms of Capital" (2011).
16 Regen Network CIO lifetime figures (2026) — $ stats

ETHICHUB

Collateral Rebuilt From Community Trust

FINANCIAL INCLUSION | AGRICULTURAL DeFi | CROWD COLLATERAL | SMALLHOLDER COFFEE FINANCE

Where banks demand collateral that smallholder farmers cannot provide, EthicHub lends on community-validated trust instead, backed by a globally investable crowd-funded pool that absorbs losses, so global capital reaches farmers invisible to the banking system.

Co-founded in 2017 by Jori Armbruster, Gabriela Chang, Diego Pardilla, and Raúl Martínez.

Spain (registered company); operations in six countries in Latin America (Mexico, Colombia, Peru, Brazil, Honduras, Ecuador)

ethichub.com

What it does

EthicHub connects investors anywhere in the world directly to unbanked smallholder coffee farmers across Latin America. A shared guarantee pool, funded by outside backers and reinforced by field partners who know each borrower personally, stands in for collateral these growers cannot offer. Smart contracts pool and route the capital, so small amounts from thousands of lenders converge into a single loan. Such loans are too small and the growers too far from any branch for economics to make sense for traditional banks. The digital and trust protocol absorbs that cost instead so loans reach farmers far below the rates charged by informal local lenders.

The model runs as a flywheel with two loops. In the lending loop, investors deposit funds into automated contracts, field partners validate each borrower, and cooperatives receive loans timed to the harvest. In the trade loop, EthicHub buys the financed coffee, exports it to specialty roasters in Europe and North America, and pays farmers a 15 to 20 percent premium over local buyers. Trade revenue funds repayment, and the cycle begins again. The software moves the capital based on human trust.

Key Facts

$6M+ in cumulative financing across 15 cooperatives in six countries.

10,000+ farmer beneficiaries across 20,000+ hectares, financed by 2,000+ global lenders[18].

Loan rates up to 10x lower: farmers borrow at 8 to 10% against the 80 to 100% charged by informal local lenders.

Default rate below 3% across 600+ completed loan projects, with zero principal lost by any lender: all losses are compensated through the Ethix crowd collateral pool[19] - figures are EthicHub's own.

"EthicHub reaches communities through field partners: trusted people embedded in each farming region who know borrowers personally, verify harvest capacity, and carry the relationship through the loan cycle."

Bridging with

Place-Based Stewards

EthicHub reaches communities through field partners: trusted people embedded in each farming region who know borrowers personally, verify harvest capacity, and carry the relationship through the loan cycle.

The Anepaan O'Deput cooperative in Chiapas, more than 400 producers, receives harvest-timed credit and sells into EthicHub's roaster network at a premium. Its members never touch a blockchain wallet, by design: when the founders saw that farmers without smartphones or reliable connectivity could not use the protocol, they built the model around cooperatives and field partners.

Institutional Changemakers

Heifer International, a development NGO in 70-plus countries, is the most consequential partner: in 2023 its capital and labs arms placed a $420,000 revolving credit facility behind Chiapas coffee cooperatives, and its 400 plus cooperatives are the network EthicHub aims to scale through. Bybit committed $1M through the Blockchain for Good Alliance, moving 100-plus tonnes of coffee into premium European markets, and the EU Joint Research Centre, IDB Lab, and MIT Solve have each recognised the model, providing capital, distribution, and legitimacy.

17 Regen Network Whitepaper (2018) — founding/structure;
18 EthicHub One-Pager

KWAXALA

The Living Forest as the Asset, the Nation as the Owner

INDIGENOUS-LED CONSERVATION | CARBON MARKETS | BIOREGIONAL FINANCE

Kwaxala helps turn the legal right to log a forest into the right to regenerate it, opening the forest's carbon revenue to large-scale capital while the Indigenous Nation keeps full ownership and control.

Kwiakah First Nation Founder Pilot, live since May 2024, key figures: Chief Steven Dick / munmuntle (Chief of the Kwiakah First Nation, Kwaxala Chairman) and Pete Corke (Director of Vision & Leadership).

British Columbia, Canada (Kwiakah First Nation territory, Great Bear Rainforest)

kwaxala.com

What it does

Kwaxala helps finance forest protection by changing the legal terms under which forests are held. Most threatened forests sit on 'public' land under tenures that grant - and require - the right to log. Kwaxala supports Indigenous Nations to buy that tenure for roughly one percent of land value, the price at which colonial systems value the obligation to extract, then retire it. The duty to log is transformed into a binding right to regenerate, with annual revenue earned from verified carbon offsets produced by the standing forest.

That legal reversal is what makes the rest possible. With the duty to log turned into a right to regenerate, the forest's future carbon revenue becomes something Kwaxala can securitise, a claim that can be held or sold without the forest itself ever changing hands. The Nation takes a fixed stewardship budget first; the rest flows through instruments forecast to return 5 percent. The Nation holds most of these for each project as a source of income, and can also sell them to impact investors as Living Forest Shares. They keep sovereignty intact while placing the standing forest on the balance sheet as something visible and valuable. Returns pool across the project network, spreading risk without any outside party taking control, so large-scale capital can engage with sovereign Indigenous projects without colonising them.

Key Facts

7 to 8× annual net return and asset value on the Kwiakah First Nation (founder) pilot project versus the area's lumber economics[20].

Extractive rights acquired at roughly 1 percent of land value, cheaper per hectare than any conservation model that buys land outright.

~7,500 hectares of Great Bear Rainforest with commercial logging permanently retired in Phase 1, total pilot 57,000 hectares.

$100M Catalytic Commitment Facility targeted for Q4 2026 ($20M first close) to finance project pipeline already developing in Canada and internationally.

Bridging with

Place-Based Stewards

Kwaxala is itself a place-based steward as much as a frontier builder. The model grew from the Kwiakah First Nation's decade-long effort to regain control of its territory, after the 2016 Great Bear Rainforest land-use order shrank, rather than expanded, the Nation's protected forest. The Ma̓cinuxʷ Special Forest Management Area was the Nation's own answer. The Living Forest Share and the Fund are the financial layer built in service to that practice, not a template imposed on it. Guardian jobs, a 100-year management plan, and the floating solar-powered Kwiakah Centre of Excellence are the stewardship the finance exists to support, with the Nation setting the terms throughout.

Institutional Changemakers

Securing the policy on tenure retirement required a willing government. The Province of British Columbia worked with the Kwiakah First Nation through a government-to-government process to build the legislative structure the model needed, and BC's compliance carbon market gives the pilot a predictable revenue stream for its offsets. Nature United contributed $3 million towards the transition, and Island Coastal Economic Trust put $200,000 towards the Kwiakah Centre of Excellence, alongside research partnerships with three Canadian universities. A $100 million Catalytic Commitment Facility is aimed at family offices and institutional investors, asking that they accept a revenue-share return of around five percent and leave ownership and governance with the Nation.

19 EthicHub × Bybit/BGA PR (2025)

20 Kwaxala, Living Forest Shares (company materials; Pete Corke); Kwiakah First Nation & Province of BC, Ma̓cinuxʷ SFMA announcement (2024); Nature

GRASSROOTS ECONOMICS

Community Commitments, Pooled and Exchanged

COMMITMENT POOLING | FINANCIAL INCLUSION | PLACE-BASED GOVERNANCE

Grassroots Economics helps communities pool promises of future goods, labour, and care, then exchange them as a local currency under rules they set themselves.

Founding pilot (Eco-Pesa) launched in 2010; Grassroots Economics Foundation founded and led by Will Ruddick.

Kenya: headquartered on the coast, operating across underbanked settlements including Mukuru, Kibera, Kisauni, and Kinango.

grassrootseconomics.org

What it does

Grassroots Economics is a Kenyan foundation that helps low-income communities pool and exchange their own commitments. In settlements where national currency is scarce and bank credit out of reach, people still hold real productive capacity: a baker's future bread, a farmer's future maize, and unmet demand among neighbours. It gives them a way to turn those mutual promises into a working local exchange.

The mechanism is commitment pooling. Members of a savings group each deposit a commitment of their own future goods or labour into a shared pool, and against it they issue and exchange vouchers. The vouchers settle on a blockchain but reach people through basic feature phones, so they need no smartphone or bank account. Local stewards, not the foundation, set each pool's rules, and a small monthly holding charge keeps the vouchers circulating rather than sitting idle.

Key Facts

14+ years of continuous operation from the Eco-Pesa paper-voucher pilot (2010) through Bangla-Pesa (2013) to blockchain-based Sarafu today.

26,367 registered users on the live Sarafu network (April 2026), 92 percent of them on basic-feature phones.

298 active commitment pools with 2,143 community vouchers in circulation, and 288,012 on-chain transfers recorded to date[21].

"Members pool promises of their own future goods and labour, then issue vouchers against the pool and spend them as local money. The currency settles on a blockchain but moves over ordinary feature phones, so no one needs a smartphone or a bank account to take part."

Bridging with

Place-Based Stewards

Grassroots Economics is itself a place-based pioneer, and the digital layer grows out of the practice, rather than the other way round. The 2013 Bangla-Pesa voucher and the commitment-pooling protocol formalise Mweria, the Mijikenda rotating-labour tradition on Kenya's coast in which neighbours work on one another's farms in turn. Technology lets that ancestral pattern run at network scale. Emma Onyango, a coastal hair-salon owner and long-time community steward, shows the bridge in miniature: she began with five neighbours and a paper ledger of handwritten gift cards, and moved onto the Sarafu network only when the group outgrew what she could track by hand. The technology met the practice where it already was.

Institutional Changemakers

Traditional development finance has learned to run through Grassroots Economics rather than around it. The IFRC and the Kenya Red Cross Society have used commitment pools as the distribution layer for humanitarian aid since 2019, reaching more than 50,000 people during the COVID pandemic[22], and Heifer International Kenya runs programmes the same way.

What these institutions gain is a local economy that can absorb a cash injection instead of letting it leak straight back out. The cautionary note runs the other direction: a large share of the foundation's income once came through Celo's blockchain validator programme, and when Celo wound it down, the revenue vanished. Institutional rails cut both ways.

United, "Living Tree Tenures" (Chief Steven Dick interview); Island Coastal Economic Trust, "Kwiakah Centre of Excellence"
21 Sarafu Network on-chain data (Dune, Apr 2026) Ruddick, Commitment Pooling (IJCCR, 2023)
22 Ussher et al., "Complementary Currencies for Humanitarian Aid," Journal of Risk and Financial Management 14, no. 11 (2021): 557.

HUM.COMMUNITY

Institutional Money, Community Decisions

PARTICIPATORY GRANTMAKING | PLACE-BASED GOVERNANCE | PUBLIC GOODS FUNDING | CIVIC INFRASTRUCTURE

hum.community shifts who decides how grant money is spent, from distant funders and evaluators to the communities receiving it, and gives those funders transparency in place of a veto.

Emerged from a government-funded research project, The Wellbeing Protocol. Live pilots running since 2024.

Aotearoa New Zealand (origin); pilots in New Zealand, UK and Australia

hum.community

What it does

hum.community is a participatory funding platform. A funder, often a government agency, a foundation, or a council, places capital into a pool. A local group of roughly 15 to 50 people then proposes, debates, and allocates that money to projects in their own neighbourhood, continuously, rather than competing through occasional, time-boxed grant rounds judged by outside evaluators.

Three roles keep the system aligned. Communities make the decisions. Partners, such as charities, councils, or NGOs, onboard each community, hold the funds in a regulated bank account, set the rules in a written constitution, and release approved payments. Funders gain a live, auditable view of where money goes. The cash itself stays on ordinary banking rails, while a digital ledger records every vote, allocation, and receipt.

Key Facts

20+ live pilots from hum.community and The Wellbeing Protocol over roughly two years.

$600K allocated through the platform across those pilots so far.

Pilots span **Indigenous-led, youth-led, and urban civic groups.**

"Funders get a live, auditable view of exactly where their money goes, and in exchange give up the veto over how any of it is spent."

Bridging with

Place-Based Stewards

hum reaches communities through hyper-local groups each with their own written constitution and rules they can configure.

The Tāne Ora pilot in Aotearoa New Zealand shows the point: an Indigenous-led wellbeing initiative whose governance reflects Māori custom and local norms rather than an external funding template. Settings the community can adjust, not fixed ones, let its treasury strengthen cultural legitimacy. That fit is deliberate; hum's own roots are in Māori principles of self-determination and relationality. The platform bends to the community's way of deciding, not the other way round.

Institutional Changemakers

hum's pitch to institutions: fund participatory grantmaking without giving up accountability. Its 'Web2.5' design keeps money on regulated banking rails and inside partner organisations funders already trust, while written constitutions act as risk controls and an auditable, community-led trail replaces top-down oversight.

Engagement so far is mostly philanthropic and civic: a donation from Aya Miyaguchi, then Executive Director of the Ethereum Foundation, seeded the youth-led Rātā Rangatahi pilot, and Regen Melbourne tested the tools for urban stewardship. Larger public on-ramps, such as New Zealand's conservation and environment agencies, are next steps rather than secured partners. The institutional bridge is real but still early.

REFERENCES

REFERENCES

1. UNEP. State of Finance for Nature 2023: *The Big Nature Turnaround — Repurposing $7 Trillion to Combat Nature Loss*. Nairobi: UNEP, 2023. https://www.unep.org/resources/state-finance-nature-2023
2. OECD. *Global Outlook on Financing for Sustainable Development 2025: Towards a More Resilient and Inclusive Architecture*. Paris: OECD Publishing, 2025. https://doi.org/10.1787/753d5368-en
3. UNCTAD. *World Investment Report 2023: Investing in Sustainable Energy for All*. Geneva: UNCTAD, 2023. https://unctad.org/publication/world-investment-report-2023
4. Circular Bioeconomy Alliance. *Designing for Life: Reimagining Nature Finance,* October 2025. https://circularbioeconomyalliance.org/designing-for-life-reimagining-nature-finance/
5. RWA.xyz. *Analytics on Tokenized Real-World Assets*. Accessed 4 June 2026. https://app.rwa.xyz/
6. SWIFT. *Swift to Add a Blockchain-Based Shared Ledger*. September 2025. https://www.swift.com/news-events/news/swift-add-blockchain-based-ledger
    - J.P. Morgan. *Kinexys* by J.P. Morgan. https://www.jpmorgan.com/kinexys
    - BlackRock. *BUIDL — USD Institutional Digital Liquidity Fund* (*tokenized by Securitize*). https://securitize.io/blackrock/buidl
    - Visa. Visa *Onchain Analytics*. https://visaonchainanalytics.com/
7. World Food Programme. *Building Blocks*. Accessed 4 June 2026. https://www.wfp.org/building-blocks
8. Wyoming Stable Token Commission. Frontier Stable Token (FRNT). 2026. https://stabletoken.wyo.gov/
9. Gitcoin and UNICEF Office of Innovation. *Gitcoin × UNICEF: A Powerful Quadratic Funding Collaboration Pilot*. December 2022. https://gitcoin.co/blog/gitcoin-unicef-qf-collaboration-pilot
10. UNDP. UNDP *Takes Its Blockchain Academy Global*. 2024. https://www.undp.org/news/undp-takes-its-blockchain-academy-global
11. UNDP. *New Tech, New Partners: Transforming Development in the Digital Era*. 2024. https://www.undp.org/publications/new-tech-new-partners-transforming-development-digital-era
12. UNDP. *Digital Public Infrastructure for Green Transitions*. UNDP blog. Accessed 4 June 2026. https://www.undp.org/blog/digital-public-infrastructure-green-transitions
13. Fundación Pachamama and Regen Network. A New *Approach to Conservation: Biocultural Jaguar Credits*. 12 March 2024. https://news.pachamama.org/a-new-approach-to-conservation-biocultural-jaguar-credits
    - Obuntu Resets. *Wetland Restoration*, Kiwaatule, Uganda. https://www.obunturesets.com/
    - Regen Network. *Lifetime Credit Value* (first-party figures supplied by Regen Network's CIO, May 2026). (*not public*)
14. Kwaxala. *Living Forest Shares* (company materials; Pete Corke). https://www.kwaxala.com/
    - Kwiakah First Nation and Province of British Columbia. *Ma̓ća̓inux*^{w} *SFMA Announcement*. May 2024. https://www.kwiakah.com/news/macinux-sfma-announcement-radl4
15. The Wellbeing Protocol. *hum.community — Participatory Funding Platform*. Accessed 4 June 2026. https://hum.community/
    - Regen Melbourne. Enabling a Thriving Civic Life: Trialling Distributed Grant Making with the Wellbeing Protocol. https://www.regen.melbourne/news/new-urban-governance-first-report
16. Grassroots Economics / Sarafu Network. *On-Chain Operational Snapshot*. Dune Analytics, April 2026. https://dune.com/
17. EthicHub. *EthicHub, Bybit and BGA Join Forces to Strengthen Access to Financing*. July 2025. https://www.ethichub.com/en/blog/ethichub-bybit-bga-join-forces-to-strengthen-access-to-financing
    - 60 Decibels. EthicHub Lean Data Impact Assessment. 2024. (independent companion; report not public)
18. Roland, Ethan, and Gregory Landua. *The Eight Forms of Capital. Permaculture Magazine No. 68*, 2011. http://www.appleseedpermaculture.com/wp-content/uploads/2011/04/8_Forms_of_Capital_PM68.pdf
19. CarbonPlan. Zombies on the Blockchain. 2022. https://carbonplan.org/research/toucan-crypto-offsets
    - Toucan. Toucan History. https://blog.toucan.earth/toucan-history/
20. Verra. *Verra Addresses Crypto Instruments and Tokens*. 25 May 2022. https://verra.org/verra-addresses-crypto-instruments-and-tokens/

21. Verra. *Verra and Hedera to Accelerate Digital Transformation of Carbon Markets*. https://verra.org/verra-and-hedera-to-accelerate-digital-transformation-of-carbon-markets/

- J.P. Morgan. *Kinexys Launches Carbon Market Blockchain Tokenization* (with S&P Global Commodity Insights). July 2025. https://www.jpmorgan.com/payments/newsroom/kda-blockchain-carbon-market-tokenization
- Climate Action Data Trust. (IETA, World Bank and Government of Singapore.) Launched 6 December 2022. https://climateactiondata.org/

22. Regen Network. *Whitepaper*. 2018. https://gitlab.com/regen-network/regen-public-docs/-/blob/master/WhitePaper.tex

23. Regen Network. *Lifetime Credit Value* (first-party figures supplied by Regen Network's CIO, May 2026). (*not public*)

24. EthicHub. *Series A One-Pager*. (investor document — not public; figures also via 16 and at https://www.ethichub.com/)

25. EthicHub. *EthicHub, Bybit and BGA Join Forces to Strengthen Access to Financing*. July 2025. https://www.ethichub.com/en/blog/ethichub-bybit-bga-join-forces-to-strengthen-access-to-financing

26. Kwiakah First Nation and Province of British Columbia. *Ma̓ćinux*^{w} *SFMA Announcement*. May 2024. https://www.kwiakah.com/news/macinux-sfma-announcement-radl4

- Nature United. Working Together Towards *"Living Tree Tenures."* https://www.natureunited.ca/what-we-do/insights/thought-leadership-perspectives/kwiakah-nation-living-tree-tenures/
- Island Coastal Economic Trust. *Kwiakah First Nation Centre of Excellence Advances a Stewardship-Based Economy*. https://islandcoastaltrust.ca/news/kwiakah-first-nation-centre-of-excellence-advances-a-stewardship-based-economy/

27. Grassroots Economics / Sarafu Network. *On-Chain Operational Snapshot. Dune Analytics,* April 2026. https://dune.com/

- Ruddick, Will. *Commitment Pooling*. International Journal of Community Currency Research (IJCCR), 2023. https://ijccr.net/

28. Ussher, *Leanne, et al. Complementary Currencies for Humanitarian Ai*d. Journal of Risk and Financial Management 14, no. 11 (2021): 557. https://www.mdpi.com/1911-8074/14/11/557

This paper rests on the work of many.

Our deepest appreciation to the people and initiatives whose practice grounds it: Gregory Landua at Regen Network, Will Ruddick at Grassroots Economics, Pete Corke at Kwaxala, Mark Pascall at hum.community, and Atossa Soltani at ASHA. And to the wider community of regenerative finance pioneers on whose work this paper builds.

Special thanks to Kate Raworth, whose challenges, editing and encouragement shaped it throughout. Our thanks, too, to Professor Yadvinder Malhi and colleagues at the Leverhulme Centre for Nature Recovery, for encouraging us to push the boundaries.

To Derek Smith for the editing, and to Chantelle de Lange for the design.

And to the Earth herself, our greatest teacher, when we slow down enough to listen.

A large language model helped polish the prose. The thinking is our own.

ostara ReFi DAO Leverhulme Centre for Nature Recovery UNIVERSITY OF OXFORD