



Bioregional Financing Facilities

Reimagining Finance to Regenerate Our Planet

Case Study 6: Regen Network and Eco-Credits



BioFi Project



Capital Systems



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Regen Network and Eco-Credits - A Novel Funding Mechanism for Regeneration

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About the Regen Network

Established on the belief that land stewards and local communities should define what eco-social regeneration looks like in their context, the RegenNetwork is an opensource technology stack and blockchain dedicated to the redefinition of value, away from extraction, towards planetary regeneration. At the core of the project, is the belief that the instruments used to align finance with environmental wellbeing must be owned and governed by communities practicing regeneration. One of the primary instruments in achieving this are eco-credits, a novel funding mechanism that can support the protection of ecosystems and the stewardship practices which regenerate them. An eco-credit can be understood as an evolution of ecosystem service credits used in climate finance, like carbon credits, with several critical differences. Credits function like a discrete unit of value – fungible, non-fungible, or a combination of both – within a regenerative economic paradigm. Unlike philanthropy or impact investing, which allocate resources to critical habitats and people who need it most, regenerative economics redefines value at its root, arguing that ecosystems and their steward relationships produce value while alive and intact through their life- sustaining ecosystem functions, not just as commodities and raw materials.

Composition

Eco-credits move past carbon-tunnel vision to represent a more holistic definition of biocultural health. Carbon drawdown, while extremely important, is only one parameter in a myriad of factors that define healthy and prosperous ecosystems.

- Eco-credits are multidimensional attestations of ecological health which may include:
- Carbon sequestration
- Biodiversity indices
- Practice - based methodologies of ecosystem regeneration
- Erosion mitigation
- Water conservation
- Social prosperity and wellbeing
- Cultural integrity like Indigenous ancestral stewardship

Attesting to data is a way to validate a piece of data and is comparable to signing a legal document – implying the contents of the data are accepted to be true by the attestor to the best of their knowledge.

Governance

The dynamic composition of eco-credits reflects the belief that regeneration looks like different measures, indices, and practices in different places. Eco-credits are reflections of

their biocultural context. Rather than top-down prescriptions of what regeneration looks like across different contexts endemic to climate finance, the composition of eco-credits must reflect the people, bioregion, and a larger story of place. The definition and creation of an eco-credit is coauthored by the larger group of stakeholders through governance processes:

- The primary author of the terms and composition of an eco-credit is the bioregional community directly responsible for the stewardship.
- Indigenous Peoples and Local Communities (IPLCs), ecosystem guardians and protectors must hold the primary authority for what biocultural indicators mark the composition of a credit.
- This bottom up definition of value is corroborated with external stakeholders, like the scientific community, as well credit purchasers.

A process of co-authorship for the definition of value beginning with stewards themselves means the identity and wellbeing of the communities doing the direct work of restoring and protecting ecosystems are centered in the design and development of eco-credits.

Definition through decentralized protocols

The joint ownership and authorship of eco-credits is made possible through decentralized protocols in the form of DAOs. DAOs can be understood as an evolution of commons, wedding digital governance with common pool resource management. They are a hybrid of digital knowledge commons and biospheric commons. DAOs can be bioregionally defined; in bioregional DAOs, the members who govern the DAO are bound by a particular region and may include the grassroots communities directly responsible for the regenerative work, like IPLCs, local stewards, community boards, and guardians. DAOs may also be defined by association as guild DAOs, where members who govern the DAO are affiliated by shared knowledge and expertise—like scientific peer communities, supply chains, and impact verifiers. Designing the governance model between bioregional and guild DAOs allows different stakeholders to interact in a facilitated manner to govern the composition, roles, and terms of eco-credits. This is particularly important for the co-authoring of credits between originators and purchasers. It also allows all aspects of the creation of eco-credits to be transparent as appropriate, auditable, and thus continuously accountable to the claims and attestations they define.

Ecological Institutions

Additionally, the use of decentralized protocols enables the creation of novel legal and economic actors, which would not be possible in a conventional centralized system of ownership, sensing, and governance. Decentralized protocols enable non-conventional ecological actors, like non-human organisms, ecosystems, and even whole bioregions, to own their own currency, deeds, and information. Ecosystems are, in effect, autonomous funds or trusts of information and currency that disperse resources towards different stakeholders or initiatives based on the satisfaction of contractual conditions. These entities, broadly referred to as Ecological Institutions, are an integration of regenerative economics enabled by blockchains and DAOs with the rights of nature movement, proposed by the emerging field of Earth law.

Legal personhood and other designations allow organisms, ecosystems, and whole bioregions to own their own currency, data, and contracts in digital form. This means non-humans are able to legally possess digital currencies, digital files, and data sets, as well as digital copies of contracts and deeds. The design and definition of Ecological Institutions is an area for significant potential research, integrating social governance practices with data inputs in the form of oracles. Oracles can be understood as ecological sensing systems that deliver data about the state of ecosystems and organisms as inputs into software systems, controlling the behavior of algorithms based on conditions in the environment.

Ecological Institutions may issue, own, or coordinate the creation and circulation of eco-credits using a stack like the Regen Network. A comprehensive introduction to this topic can be found in the paper Ecological Institutions by Austin Wade Smith, Regen Foundation, and Earth Law Center.

Programmable circulation

The relationship between eco-credits and decentralized protocols allows finer control over the terms and conditions of credit sales. Originators of eco-credits are able to specify to whom credit can or cannot be sold, as well as the terms of their fungibility or expiration. This allows the nature of the credit circulation to be programmable by the originators. We broadly refer to the ability to control how credits are sold, to whom, and the terms of their resale as programmable circulation, because unlike conventional financial systems, eco-credits issued and exchanged on blockchains, allow originators of credits to specify the conditions of how eco-credits are transacted.

While enabled by decentralized protocols of ownership and governance, decentralized protocols are not required. The principle of community ownership around the terms and definition of regeneration at a local level lies at the heart of what an eco-credit is. As such, they may be implemented across a wide range of systems, which do not run on top of decentralized ledger technologies like blockchains.

Regen Network works to scale joint trust agreements between originators and purchasers around context-specific regenerative action in the form of high integrity eco-credits. The Network supports an international community of practitioners and project developers designing and issuing eco-credits through the Regen Network app. Monthly eco-credit Builder Labs support and catalyze credit development, and are a good entry point into learning more about the relation of eco-credits to BFFs.

This Case Study on **Regen Network and Eco-Credits** is an Excerpt from the book **Bioregional Financing Facilities: Reimagining Finance to Regenerate Our Planet**, by Samantha Power and Leon Seefeld. To see other case studies, or to buy or download the book, visit www.biofi.earth.

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