BioFi Project



Bosque Fractal

Investing in the Infrastructure for Landscape Regeneration

ZAQUENCIPÁ VALLEY, COLOMBIAN ANDES **WEBSITE**

Bosque Fractal works in the Zaquencipá Valley, which covers 1,800 km² spanning 14 municipalities in Colombia's Eastern Andes. The Valley connects high-altitude grasslands, Andean forests, agricultural landscapes and the Suárez River basin, while holding deep biocultural memory linked to Muysca culture and its sacred Iguaque.

The Valley is also an important food-producing region and has experienced comparatively greater territorial stability than parts of Colombia affected by decades of armed conflict. Bosque Fractal sees this as an opportunity to anticipate and shape a longer-term ecological and economic transition.

Since 2019, Bosque Fractal has been moving from the stewardship and restoration of one particular property toward building the relationships, knowledge and practical infrastructure needed to work across the wider Valley. Its experience is useful for bioregional finance because it demonstrates what often has to be financed before there is a fund or a pipeline of investable projects.

Challenge

The Zaquencipá Valley already contains campesino communities, rural aqueduct associations, conservation initiatives, producers, public institutions and regenerative projects. The problem is not an absence of activity, but fragmentation among those efforts and the capital supporting them.

Some of the most important work is also difficult to finance conventionally. Forest protection, water regulation, ecological connectivity, territorial mapping, relationship-building and long-term stewardship create value for the Valley but do not necessarily generate revenues or financial returns. Bosque Fractal has therefore relied primarily on patient founder and family capital.

COBALT (Collaborative for Bioregional Action Learning & Transformation) is supporting the work through its Bioregional Macroscope, a participatory approach that combines mapping, data, systems analysis and local knowledge to understand the bioregion and inform priorities for regeneration.

Yet relatively few funders in Colombia support the connective work needed to respond at the scale of the bioregion: understanding the territory, coordinating actors, strengthening governance and connecting municipalities around ecological systems that cross their administrative boundaries.



Model

Bosque Fractal is developing as a bioregional hub, or biohub, with four practical functions: making the Zaquencipá Valley visible through mapping, chorography, story and territorial narratives; prototyping restoration and water systems; connecting communities and institutions through practical projects; and cultivating ecological and spiritual awareness through learning and ancestral practices.

Its roots precede the organization itself. Abuela Margarita, a spiritual elder and member of the World Council of Elders, together with founder Juliana Bohórquez, her family and community, traveled across Colombia looking for a permanent territory where the Vision Quest and Earth and Sun Dance could take root. That search led to the land from which Bosque Fractal emerged.

Since 2019, the work has expanded through relationships with campesino families, rural aqueduct communities, regenerative initiatives, researchers and public actors, and by developing a strategy partnership with COBALT.

The approach therefore combines work on a particular piece of land with work across the wider territory. Restoration provides a practical place to begin, while mapping, learning and relationship-building help identify the people, ecological systems and opportunities that could form the basis of a broader bioregional strategy.

Finance

Approximately $820,000 in patient founder and family capital has been deployed to build these foundations. This has supported:

- Land acquisition and long-term stewardship: ~$400,000
- Physical and water infrastructure: ~$150,000
- Ecological restoration and native plant material: ~$100,000
- Territorial exploration, mapping and knowledge development: ~$70,000
- Team capacity and coordination: ~$60,000
- Network-building, learning and community engagement: ~$40,000

Patient capital has thus been channeled to land, ecological restoration, knowledge of the territory, relationships and organizational capacity rather than a portfolio of conventional investments.

Family capital has been complemented by institutional and in-kind support. Corpoboyacá, for example, has provided native trees and restoration support. Participation in the BioFi Cultivator in 2024 opened a new phase focused on determining which forms of capital are appropriate for different needs.

An initial pilot with Silvi.Earth is testing one possibility. Global campaigns that include Zaquencipá mobilize approximately $2 per tree. In the Valley, that can roughly cover the plant material itself, but not necessarily planting, maintenance and longer-term stewardship. Bosque Fractal is therefore exploring whether public institutions can provide trees and other in-kind resources, allowing more of the funding raised through Silvi.Earth to pay for planting, care and follow-up.

The experiment points toward a broader opportunity: a bioregional native plant nursery could produce locally appropriate species, lower the cost of plant material, develop local skills and support a wider network of restoration projects.

Outcomes

Since 2019, Bosque Fractal has helped protect and regenerate an approximately 20-hectare sanctuary, plant more than 15,000 native trees, protect native oak forests, restore ecological corridors and develop decentralized water systems.

Its work has also begun moving beyond individual parcels. Across the Valley, the process has mapped more than 200 actors and initiatives and produced territorial mapping, systemic analysis and collaborative learning processes.

These are different kinds of outcomes, but they are connected. The restoration work creates practical examples of what regeneration can look like, while the mapping and relationship-building develop the knowledge and networks needed to coordinate work across the larger territory.

Lessons

One lesson from Zaquencipá is that coordination can be built through shared action. Restoring forests, caring for water and exploring the territory together can build relationships among people and institutions that might otherwise remain disconnected. Mapping and analysis help make the larger system visible, but practical work provides a reason for people to collaborate.

The experience also demonstrates why some of the foundations of bioregional finance require patient or philanthropic capital. Before there is an investment pipeline, resources may be needed simply to understand a place, acquire and steward land, restore ecosystems, build relationships and develop the organizations capable of coordinating across a territory.

For Bosque Fractal, the financial mechanism also remains secondary to the relationships it is intended to serve. Capital is useful insofar as it supports regeneration and strengthens relationships with land, water, communities and other forms of life, rather than becoming the organizing purpose of the work itself.

What’s Next

Bosque Fractal is now seeking to develop two complementary pieces of bioregional infrastructure.

The first is a three-year Bioregional Chorographic Laboratory, with an estimated budget of $550,000, to deepen understanding of the Valley, undertake territorial journeys and mapping, connect initiatives, strengthen communication and collective learning, and develop a shared bioregional strategy.

The second is a Bioregional Native Nursery Network and Restoration & Learning Program, with an estimated first-phase capital need of $150,000–$300,000. It would support native plant propagation and a seed bank, education and local capacity-building, restoration and monitoring, and a wider network of community-based nurseries and restoration efforts.

The two are deliberately connected: the Chorographic Laboratory helps determine where, with whom and how to act, while the nursery and restoration network provide practical capacity to act on that knowledge.

Bosque Fractal expects the financing to reflect those different functions. Grants and philanthropy can support knowledge, coordination and education; catalytic or patient capital could support infrastructure; and public resources or results-based mechanisms could increasingly support restoration and stewardship. Conversations are also beginning with public actors about intermunicipal restoration and climate-resilience initiatives from 2027 onward.