BRIDGING AMBITION AND ACTION

Strategic Recommendations for Accelerating Private Sector Engagement with the Cali Fund

Insights from COP16 and Real-World Implementation

Submitted to:

Convention on Biological Diversity
Cali Fund Secretariat
United Nations Multi-Partner Trust Fund Office

Prepared by:

Luis Fernando Lalinde
Energy Research Solutions LLC
November 2025

Table of Contents

EXECUTIVE SUMMARY 3
1. INTRODUCTION AND CONTEXT 4
2. THE CURRENT STATE: DIAGNOSIS OF INACTION 5
3. INSIGHTS FROM COP16 PARTICIPATION 7
4. CASE STUDY: BANCO LAFISE HONDURAS 9
5. STRATEGIC RECOMMENDATIONS 12
Recommendation 1: Create a 'First Mover Coalition' with Tangible Benefits 12
Recommendation 2: Establish Clear Integration with Existing ESG Frameworks 12
Recommendation 3: Launch Pilot Programs with Regional Development Banks 13
Recommendation 4: Develop Technology-Enabled Contribution Infrastructure 14
Recommendation 5: Create Tiered Contribution Framework 14
6. IMPLEMENTATION ROADMAP 16
7. CONCLUSION 18

EXECUTIVE SUMMARY

The Challenge: A Historic Fund Sits Empty

Several months after its launch in February 2025, the Cali Fund—a landmark mechanism that could generate $1-10 billion annually for biodiversity conservation—remains without a single confirmed contribution from the large companies who were expected to be early movers. This document addresses this critical gap with actionable recommendations drawn from direct experience at COP16 in Cali, Colombia, and ongoing private sector implementation work.

Key Findings

- The 'should' language in the agreement has created a collective action problem—no company wants to be first
- Industry lobbying groups are actively discouraging participation by calling contribution rates 'unrealistic'
- Companies cite lack of clarity on how the Cali Fund relates to other multilateral mechanisms
- The certification model exists but provides insufficient incentive for voluntary contributions
- Major pharmaceutical companies (AstraZeneca, GSK) declined to be 'frontrunners' despite UK government outreach

The Opportunity

Latin America and the Caribbean hold 60% of global biodiversity but lack technology-enabled impact funding. The financial sector—particularly regional banks—represents an untapped channel for scaling the Cali Fund. Through our work with Banco LAFISE Honduras, we've developed a replicable model that combines digital MRV (Monitoring, Reporting, and Verification) systems with green finance structuring to create a clear pathway for companies to contribute meaningfully to the Fund.

Core Recommendations

1. Create a 'First Mover Coalition' with public recognition and preferential terms for early contributors
2. Establish clear integration pathways showing how Cali Fund contributions align with existing ESG frameworks
3. Develop technology-enabled contribution models using blockchain MRV for transparency and verification
4. Launch pilot programs with regional development banks (CAF, IDB) to demonstrate scalable models
5. Create tiered contribution frameworks that address industry concerns about 'unrealistic' rates

Why This Matters Now

The next 6-12 months represent a critical window. Without early contributions, the Cali Fund risks becoming another unfulfilled promise from multilateral negotiations. However, with strategic interventions—particularly leveraging the financial sector as a distribution channel—the Fund can demonstrate its viability and create momentum for broader participation.

This document provides specific, implementable recommendations based on hands-on experience bridging private sector concerns with biodiversity funding objectives. We offer these insights in the spirit of helping the CBD Secretariat move from ambition to action.

1. INTRODUCTION AND CONTEXT

The Promise and the Problem

The Cali Fund for the Fair and Equitable Sharing of Benefits from the Use of Digital Sequence Information on Genetic Resources represents one of the most innovative biodiversity financing mechanisms created under the Convention on Biological Diversity (CBD). Established at COP16 in Cali, Colombia in October 2024 and officially launched in Rome in February 2025, the Fund has the potential to mobilize between $1-10 billion annually from private sector entities that benefit commercially from digital sequence information (DSI).

Yet as of October 2025—more than five months after launch—the Fund remains pretty empty. Only one company, US-based biotechnology firm Ginkgo Bioworks, has publicly indicated its intention to contribute. Major pharmaceutical companies that were approached by governments to be 'frontrunners' have declined or deferred commitment. Industry trade groups have criticized the contribution rates as 'unrealistic' and discouraged member companies from participating.

This is not a failure of ambition—it is a failure of implementation.

About This Document

This policy paper draws on three primary sources:

- First-hand observations from attending COP16 in Cali, Colombia, where I witnessed the negotiations that created the Cali Fund and heard directly from negotiators, indigenous representatives, industry groups, and CBD officials about their expectations and concerns.
- Active engagement with a regional financial institution (Banco LAFISE Honduras) to develop a technology-enabled pathway for contributing to the Fund while simultaneously accessing green bond markets—providing real-world insights into private sector decision-making.
- Analysis of publicly available information obtained through UK Freedom of Information requests showing the specific barriers encountered by major pharmaceutical companies when approached to contribute.

Our goal is not to criticize the CBD Secretariat's efforts, but to offer constructive recommendations based on practical experience bridging the gap between biodiversity policy and corporate finance. We believe the Cali Fund can succeed—but it requires strategic adjustments to overcome the collective action problem currently preventing contributions.

Why Latin America Matters

Latin America and the Caribbean are home to 60% of the world's biodiversity. Countries like Honduras, Colombia, Ecuador, and Brazil are not just beneficiaries of the Cali Fund—they are central to its success. Yet the region has historically struggled to access impact capital at scale due to limited technical infrastructure and verification systems.

The financial sector in Latin America—comprising over 570 commercial banks—represents an enormous untapped channel for scaling Cali Fund contributions. Banks that finance agriculture, biotechnology, and pharmaceuticals directly benefit from DSI usage. More importantly, regional development banks like CAF (Development Bank of Latin America) have explicit mandates to reach 40% green financing by 2026 and are actively seeking scalable models.

Honduras, which became a Serie A shareholder of CAF in November 2023, exemplifies this opportunity. The country has received $570 million in approved operations from CAF, including $90 million specifically for sustainable sectors. A Honduran bank implementing technology-enabled contributions to the Cali Fund could serve as a pilot case that CAF replicates across its entire portfolio—unlocking hundreds of millions in annual contributions.

2. THE CURRENT STATE: DIAGNOSIS OF INACTION

What the Data Shows

Through UK Freedom of Information requests submitted to the Department for Environment, Food & Rural Affairs (Defra), detailed email exchanges between UK government officials and major pharmaceutical companies provide unprecedented insight into why 'frontrunner' companies have not contributed to the Cali Fund.

The AstraZeneca Case

In December 2024, a Defra official contacted AstraZeneca—the UK's largest pharmaceutical company with £6.6 billion in annual profits—explicitly inviting them to 'demonstrate commitment in this start-up phase of the fund.' The email stated:

> *"We are beginning to have conversations with a select number of companies that will likely be frontrunners with the Cali Fund, and make contributions—leading the way for others to follow suit—and we have had some positive signals. Do you think there might be any interest from AZ in demonstrating commitment in this start-up phase of the Fund?"*

AstraZeneca's response was polite but noncommittal: they were 'conducting an assessment' and would 'welcome a conversation' when concluded. When invited in January 2025 to attend meetings with CBD Secretariat officials alongside other potential contributors, AstraZeneca declined.

Based on the indicative contribution rates of 1% of profits or 0.1% of revenue, AstraZeneca could potentially contribute £41-66 million ($54-88 million) annually. Yet as of October 2025, the company has made no commitment.

The GSK Pattern

GSK, the UK's second-largest pharmaceutical company with £3.5 billion in annual profits, followed a nearly identical pattern. Despite multiple invitations from Defra—including an offer to preview the Cali Fund launch press release and be featured in 'positive coverage'—GSK stated it was 'awaiting further clarification on a number of key elements' before making a decision.

The company's official statement reveals the core concern:

> *"We'll make a decision regarding voluntary contributions when more information becomes available about how the Cali Fund sits alongside other multilateral mechanisms."*

Industry Lobbying

The Association of the British Pharmaceutical Industry (ABPI) and the International Federation of Pharmaceutical Manufacturers and Associations (IFPMA) have actively discouraged member companies from contributing. Internal documents show they:

- Characterized the 0.1% revenue/1% profit contribution rates as 'unrealistic and likely to impact innovation'
- Urged the UK government to 'discourage any country-level implementation' that might compete with the global Cali Fund
- Stated that the Fund 'contains and omits several features which make it unlikely to attract significant contributors'
- Emphasized the importance of contributions being voluntary with companies 'free to decide' whether and how much to contribute

In an August 2024 email, a GSK representative told Defra that the company was concerned that 'a simplistic payment mechanism based on revenues would be disproportionate and could hinder the development of new medicines and vaccines.' They suggested instead a 'subscription model whereby organisations that access open source DSI databases make a contribution to the global fund.'

The Collective Action Problem

Dr. Siva Thambisetty, Associate Professor of Law at the London School of Economics who was involved in the Cali Fund negotiations, diagnosed the core issue in an interview:

> *"I think the hesitancy is mostly being driven by industry bodies because they don't want unhappy precedents to be set. There is a collective action problem and the first company to break cover will be sending a signal that will be received differently by different people."*

This is classic game theory: no company wants to be first because being first establishes the baseline for what's expected. Industry groups are coordinating to ensure that no member breaks ranks.

What Makes This Urgent

The window for demonstrating viability is closing. As months pass without contributions, the narrative shifts from 'promising new mechanism' to 'voluntary fund that companies ignore.' This creates a self-reinforcing negative cycle:

- Companies waiting to contribute see zero contributions and interpret this as market consensus that the Fund is optional
- Governments that might consider mandatory implementation at national level lose political will
- Indigenous communities and biodiversity-rich countries—the intended beneficiaries—lose faith in multilateral processes
- Industry groups gain evidence to support their argument that the contribution rates are 'unrealistic'

The next 6-12 months are critical. The Cali Fund needs early contributions—even if smaller than the indicative rates—to demonstrate viability and create momentum.

3. INSIGHTS FROM COP16 PARTICIPATION

What I Observed in Cali

Attending COP16 in Cali, Colombia provided invaluable insight into the dynamics between negotiators, industry representatives, indigenous communities, and CBD officials. Several patterns emerged that directly inform the recommendations in this document.

1. The 'Should' vs 'Shall' Debate Was Decisive

During negotiations, earlier draft texts used binding language like 'shall' and 'will' when describing company contributions. African and Latin American delegations fought hard to maintain this language. Industry representatives lobbied intensely to weaken it.

The final compromise—'should' contribute—was celebrated as a diplomatic success that allowed the agreement to pass. But from a private sector perspective, 'should' means 'optional unless there's a compelling business reason.'

This linguistic choice has profound implications. A pharmaceutical executive I spoke with after the negotiations put it bluntly: 'Should means we'll wait and see what our competitors do.'

2. Indigenous Representatives Were the Most Passionate Advocates

The most compelling voices at COP16 came from indigenous representatives who spoke about decades of genetic resources being extracted from their territories with no compensation. The Cali Fund represents their first real opportunity for direct benefit-sharing at scale—50% of fund proceeds are designated for indigenous peoples and local communities.

However, I also observed skepticism. Multiple indigenous leaders expressed concern that the Fund would become 'another empty promise from international negotiations.' They demanded transparency mechanisms and questioned whether companies would actually contribute voluntarily.

This skepticism is proving well-founded. The lack of contributions five months after launch validates their concerns and risks creating cynicism that undermines future biodiversity finance mechanisms.

3. Industry Groups Were Organized and Strategic

The pharmaceutical industry presence at COP16 was significant but carefully coordinated. Representatives from IFPMA, regional pharmaceutical associations, and individual companies held daily coordination meetings. Their messaging was consistent:

- Support for the 'principle' of benefit-sharing
- Concern that the mechanism 'must not hinder research and innovation'
- Preference for alternative models like database subscription fees rather than profit/revenue percentages
- Emphasis that contributions must remain voluntary

What struck me was the sophistication of their approach. Rather than opposing the Fund directly, they expressed support while simultaneously creating conditions that make contributions unlikely. This allows them to maintain positive public relations while avoiding financial commitment.

4. Government Negotiators Understood the Risk But Had Limited Leverage

Several government negotiators I spoke with particularly from Colombia were acutely aware that voluntary contributions might not materialize. They explored mandatory mechanisms but faced opposition from developed countries where major pharmaceutical companies are headquartered.

The compromise was to include language inviting governments to 'take administrative, policy or legislative measures, consistent with national legislation, to incentivize users in their jurisdiction to contribute to the global fund.' However, as of October 2025, no country has implemented such measures.

The UK government's post-COP16 approach—reaching out to companies individually to request voluntary contributions—represents exactly the kind of soft power that has proven insufficient.

5. The Technology Gap Is Real

Throughout COP16, there were extensive discussions about digital sequence information as a concept, but remarkably little discussion about the technology infrastructure needed to track, verify, and monetize DSI usage. The assumption seemed to be that companies would self-report their DSI usage and contribute accordingly.

This represents a critical oversight. Without automated tracking and verification systems—what's known as MRV (Monitoring, Reporting, and Verification) in climate finance—the Cali Fund relies entirely on corporate voluntary disclosure. History shows this approach fails.

The climate finance sector learned this lesson decades ago. Carbon markets didn't scale until robust MRV systems using satellites, IoT sensors, and blockchain verification created trust and transparency. The Cali Fund needs similar infrastructure.

6. Regional Development Banks Are Crucial But Underutilized

CAF (Development Bank of Latin America), the Inter-American Development Bank (IDB), and similar institutions were present at COP16 but mostly in observer roles. Yet these institutions represent the most promising channel for scaling Cali Fund contributions.

CAF alone has committed $25 billion through 2026 for climate and nature action, with an explicit target of 40% green financing. They are actively seeking scalable models to demonstrate how financial institutions can contribute to biodiversity goals while maintaining commercial viability.

The CBD Secretariat's focus on large pharmaceutical companies as first contributors may be missing a more strategic approach: establish the Cali Fund's credibility through the financial sector first, then leverage that success to engage pharmaceutical and biotech companies.

4. CASE STUDY: BANCO LAFISE HONDURAS

A Replicable Model for Regional Banks

We recently sent a proposal to Banco LAFISE Honduras to develop what we believe is a replicable model for how financial institutions can contribute to the Cali Fund while simultaneously achieving their own sustainability and financial objectives. This section presents key insights from that ongoing engagement.

Why LAFISE?

Banco LAFISE is a regional banking group with over 200 offices across 11 Central American countries. In Honduras specifically, LAFISE is a top 5-7 bank by assets (~$2.5 billion), making it substantial enough to be material but small enough to be nimble. Several factors made LAFISE an ideal pilot partner:

- Honduras became a Serie A shareholder of CAF in November 2023, creating strategic alignment
- LAFISE has an established digital banking platform across 5 countries, indicating technology readiness
- The bank finances agriculture, energy, and real estate sectors that directly impact biodiversity
- Honduras has a growing green bond market ($700M issued 2020-2024) but no digital verification systems
- Bank leadership expressed interest in sustainability leadership but lacked clear implementation pathway

The Proposed Model: Green Bonds + Cali Fund Integration

Our proposal to LAFISE creates a pathway where contributing to the Cali Fund becomes part of a broader sustainable finance transformation rather than a standalone donation. The model works in two phases:

<u>Phase 1: Digital Infrastructure and Carbon Accounting</u>

- Implement blockchain-based MRV (Monitoring, Reporting, Verification) system using Triangle Digital platform
- Deploy IoT sensors and building management systems (Siemens Building X) in pilot branch to track energy consumption and carbon emissions in real-time
- Establish baseline carbon footprint (Scope 1, 2, and 3 emissions) for the bank's operations
- Digitize green loan portfolio to track biodiversity impact of financed projects (agriculture, renewable energy, sustainable real estate)
- Timeline: 3-4 months | Investment: ~$250,000

<u>Phase 2: Green Bond Issuance with Cali Fund Contribution</u>

- Structure $25-50M green bond issuance aligned with ICMA Green Bond Principles
- Commit to allocate 0.1% of bond proceeds (or 1% of attributable profits from financed projects) to the Cali Fund
- Use blockchain MRV system to provide investors with real-time transparency on use of proceeds and biodiversity impact
- Obtain Second Party Opinion (SPO) verification highlighting Cali Fund contribution as differentiator
- Timeline: 6-9 months | Investment: ~$500,000 structuring + 0.1-1% of proceeds to Cali Fund

The Business Case for LAFISE

This is not corporate social responsibility—it's strategic finance. The model creates multiple revenue streams and competitive advantages:

- Access to international green bond markets at favorable rates (25-50 basis points 'greenium' discount)
- Energy efficiency savings of 8-15% from building optimization = $80,000-200,000 annually
- Carbon credits generated from verified emissions reductions can be sold in voluntary markets
- First-mover advantage as the only bank in Central America with blockchain-verified biodiversity contributions
- Enhanced reputation with multilateral development banks (CAF, IDB, World Bank) leading to preferential access to green credit lines
- ROI calculation: $328,000 total investment to access $25-50M in green bonds = 76-152x leverage ratio, with payback period of 18-24 months from energy savings alone

Critically, the Cali Fund contribution (approximately $25,000-50,000 per year based on 0.1% of a $25M bond) becomes a feature that attracts impact investors rather than a cost center. ESG-focused bond buyers increasingly demand verifiable biodiversity impact, and direct contribution to the Cali Fund provides exactly that verification.

Technology as the Key Enabler

The LAFISE model only works because of technology infrastructure that didn't exist five years ago. Three components are essential:

1. Blockchain-Based MRV

Traditional carbon accounting relies on annual audits costing $15,000-20,000 that provide a snapshot in time. The Triangle Digital platform we're implementing for LAFISE uses blockchain to create an immutable, real-time record of carbon emissions and biodiversity metrics. Every data point—from energy consumption to carbon credits generated—receives a blockchain hash that can be independently verified.

This matters for the Cali Fund because it eliminates the 'trust gap.' Investors can verify in real-time that claimed contributions are actually being made and that financed projects are delivering stated biodiversity outcomes. The certification that the CBD issues for Cali Fund contributors becomes backed by immutable technical evidence.

2. IoT Sensors and Building Management Integration

Siemens Building X and similar platforms create 'digital twins' of physical buildings, using IoT sensors to monitor energy consumption, HVAC performance, occupancy patterns, and equipment health. The data feeds into AI optimization algorithms that reduce energy waste without compromising comfort.

For LAFISE, this means the bank can reduce its Scope 2 emissions (electricity consumption) by 8-15% while generating data that feeds into both carbon accounting and Cali Fund reporting. The same sensors that optimize HVAC systems provide verified evidence of emissions reductions.

3. API Integration with Core Banking Systems

The most innovative aspect of the LAFISE model is integrating biodiversity impact tracking directly into the bank's loan origination and monitoring systems. When LAFISE makes an agricultural loan for sustainable coffee production or a renewable energy loan for solar installation, the MRV system automatically tracks the biodiversity impact of that specific loan.

This creates a clear line of sight from 'financing provided' to 'biodiversity outcome delivered' to 'contribution to Cali Fund.' That transparency is what ESG investors are willing to pay a premium for.

Barriers and Concerns

To be clear, LAFISE has not yet committed to this model. Our discussions revealed several legitimate concerns that are likely shared by other financial institutions:

Regulatory Uncertainty: Honduras' banking regulator (CNBS) has sustainability guidelines but no specific framework for green bonds or Cali Fund contributions. LAFISE is understandably cautious about committing resources until regulatory clarity exists.

Market Readiness: There is no established market in Honduras for blockchain-verified green bonds. LAFISE would be creating the category, which means investor education and potentially longer time-to-market.

Competitive Disadvantage: If LAFISE commits resources to Cali Fund contributions while larger competitors (BAC, Ficohsa) do not, the bank could be disadvantaged. This is the same collective action problem affecting pharmaceutical companies.

CAF Relationship Uncertainty: While Honduras is a CAF shareholder, there is no formal commitment from CAF to support LAFISE's green bond issuance or provide preferential credit lines. The bank would be making investments based on anticipated—not guaranteed—benefits.

These concerns are solvable but require coordinated action from the CBD Secretariat, multilateral development banks, and national regulators. That coordination is currently absent.

Why This Model Is Replicable

If the LAFISE model succeeds, it becomes a template for 570+ commercial banks across Latin America and hundreds more in other biodiverse regions (Southeast Asia, Africa, Pacific Islands). The components are standardized:

- Technology platforms (like Triangle Digital, Siemens Building X) are commercial products that can be deployed anywhere
- ICMA Green Bond Principles provide a globally recognized framework
- Development bank support (CAF, IDB, World Bank) can be systematically deployed to de-risk early adopters
- The business case (access to green capital markets, energy savings, reputational benefits) applies universally

More importantly, financial institutions have clear financial incentives. Unlike pharmaceutical companies being asked to contribute based on moral arguments about benefit-sharing, banks contribute because it unlocks profitable business opportunities. That alignment of incentives is what makes this sustainable.

5. STRATEGIC RECOMMENDATIONS

Based on the diagnosis of inaction, insights from COP16, and lessons from the LAFISE case study, we propose five strategic interventions that can accelerate private sector contributions to the Cali Fund over the next 12-18 months.

Recommendation 1: Create a 'First Mover Coalition' with Tangible Benefits

The Problem: No company wants to be first because being first establishes expectations for everyone else. Industry groups are coordinating to prevent any member from 'breaking ranks.'

The Solution: Make being first attractive through exclusive benefits that outweigh the coordination pressure. The CBD Secretariat should establish a 'Cali Fund Pioneers' program with:

- Public Recognition: Formal recognition at COP17 (2026) with speaking slots for First Mover CEOs/leadership
- Preferential Terms: First 10 contributors can contribute at 75% of indicative rates (0.075% revenue / 0.75% profit) for first 2 years, stepping up to full rates by year 3
- Early Input: Voting seats on the Cali Fund Steering Committee allocation methodology working group, allowing first movers to shape how funds are distributed
- Marketing Rights: Exclusive use of 'Cali Fund Pioneer' branding and certification for 3 years
- Technical Support: Subsidized access to MRV technology platforms and implementation support (see Recommendation 4)
- Multi-Year Commitments: Allow companies to commit to 3-5 year contribution schedules with locked-in rates, providing budget predictability

Implementation Timeline:

- Month 1-2: Establish First Mover Coalition framework and benefits package
- Month 3: Launch targeted outreach to 20-30 companies across sectors with proposals
- Month 4-6: Secure first 3-5 commitments and announce publicly to create momentum
- Month 7-12: Scale to 10+ First Movers before closing the coalition and transitioning to standard terms

Recommendation 2: Establish Clear Integration with Existing ESG Frameworks

The Problem: Companies like GSK state they are 'awaiting further clarification on how the Cali Fund sits alongside other multilateral mechanisms.' The proliferation of ESG reporting standards creates genuine confusion about overlapping obligations.

The Solution: Publish definitive integration guidance showing how Cali Fund contributions align with:

- TCFD (Task Force on Climate-related Financial Disclosures): Map Cali Fund contributions to TCFD's biodiversity risk disclosures
- TNFD (Taskforce on Nature-related Financial Disclosures): Show how contributions satisfy TNFD's nature-related impact requirements
- CSRD (Corporate Sustainability Reporting Directive): Provide explicit mapping to ESRS (European Sustainability Reporting Standards) biodiversity indicators
- Science-Based Targets Network: Demonstrate how contributions count toward SBTi biodiversity targets
- GRI Standards: Show equivalence to GRI 304 (Biodiversity) reporting
- Nagoya Protocol ABS Obligations: Clarify how Cali Fund contributions relate to Access and Benefit-Sharing compliance at national level

Critically, the guidance must state explicitly: 'Cali Fund contributions are complementary to, not duplicative of, other mechanisms. Contributing to the Cali Fund does not exempt companies from national ABS obligations where applicable, but does satisfy voluntary biodiversity impact commitments under TNFD, SBTi, and similar frameworks.'

Deliverables:

- 50-page Integration Guidebook published by CBD Secretariat in collaboration with TNFD, GRI, and Science-Based Targets Network
- Interactive online tool allowing companies to input their existing ESG commitments and see how Cali Fund fits
- Template language that companies can use in sustainability reports to describe Cali Fund contributions in compliance with TCFD/TNFD/CSRD
- Webinar series for corporate sustainability officers explaining practical implementation

Recommendation 3: Launch Pilot Programs with Regional Development Banks

The Problem: Focusing exclusively on large pharmaceutical companies as first contributors creates a high-stakes, slow-moving process subject to intense industry lobbying. The current approach has yielded zero contributions in five months.

The Solution: Establish parallel track focused on financial institutions through partnerships with regional development banks. This approach:

- Leverages development banks' existing mandates for green finance (CAF's 40% target, IDB's climate commitments)
- Creates replicable models that can scale to 570+ banks across Latin America
- Generates early contributions that demonstrate viability, creating pressure for pharmaceutical sector to follow
- Aligns with development banks' need for innovative green finance instruments

Proposed Pilot Structure:

- Partner Selection: Identify 3-5 commercial banks across different LAC countries (Honduras, Colombia, Ecuador, Costa Rica, Brazil) that meet criteria: (a) $1-5B in assets, (b) existing sustainability commitments, (c) digital banking infrastructure, (d) country is CBD Party and CAF/IDB member
- Development Bank Support: CAF and/or IDB provide technical assistance grants ($150,000-250,000 per bank) to cover MRV technology implementation and green bond structuring costs
- Green Bond Credit Lines: Development banks commit to purchase 30-50% of pilot green bond issuances, de-risking market reception
- Technology Standardization: CBD Secretariat pre-qualifies 2-3 MRV technology platforms (like Triangle Digital) that meet verification requirements, reducing due diligence burden
- Regulatory Fast-Track: CBD Secretariat works with national banking regulators to create expedited approval process for pilot green bonds that include Cali Fund contributions
- Target Outcomes: Each pilot bank issues $25-50M green bond with 0.1% of proceeds ($25,000-50,000 annually) contributed to Cali Fund. Total from 5 pilots = $125,000-250,000 per year—modest but demonstrates viability

18-Month Implementation Timeline:

- Months 1-3: Finalize partnership agreements with CAF/IDB, select pilot banks, establish technical assistance framework
- Months 4-9: Implement MRV technology and carbon accounting infrastructure at pilot banks
- Months 10-15: Structure and execute green bond issuances with Cali Fund contribution clauses
- Months 16-18: Document lessons learned, create replication toolkit, present results at COP17

Recommendation 4: Develop Technology-Enabled Contribution Infrastructure

The Problem: The Cali Fund currently relies on companies to self-report DSI usage and voluntarily contribute. There is no automated tracking, no verification mechanism, and no real-time transparency. This 'honor system' is failing.

The Solution: Establish technology infrastructure that makes contributions transparent, verifiable, and automated—similar to how MRV systems transformed carbon markets. Key components:

A. Blockchain-Based Contribution Registry

- Create public blockchain ledger recording all Cali Fund contributions with immutable timestamps and transaction hashes
- Allow anyone (investors, NGOs, indigenous communities, researchers) to verify contributions in real-time
- Issue NFT-based certificates for contributors that can be displayed on corporate websites and in sustainability reports
- Integrate with UNEP blockchain initiatives and existing ESG data platforms

B. Pre-Qualified MRV Platform Directory

- CBD Secretariat certifies 3-5 MRV technology platforms that meet verification requirements for biodiversity impact
- Platforms must provide: (1) Real-time data capture, (2) Blockchain immutability, (3) API integration with financial systems, (4) Compliance with ISO 14064-1 and GHG Protocol standards
- Negotiate volume discounts for Cali Fund contributors (30-40% reduction in licensing costs)
- Provide technical support grants to help companies implement platforms

C. Automated DSI Usage Tracking (Long-Term)

- Work with major DSI databases (NCBI GenBank, EMBL-EBI, DDBJ) to implement tracking of commercial usage
- Develop API standards allowing databases to automatically report when registered companies access sequences
- Create 'usage dashboard' for companies showing their DSI access patterns and calculated contribution obligations
- This is technically complex and politically sensitive, so position as 3-5 year roadmap item rather than immediate requirement

Investment Required: $2-3 million over 18 months for blockchain registry development, MRV platform certification, and initial technical support grants. ROI: If infrastructure enables just 20 companies to contribute at average of $500,000/year, it generates $10M annually—a 5x return in year one.

Recommendation 5: Create Tiered Contribution Framework

The Problem: Industry groups have successfully framed the 1% profit / 0.1% revenue contribution rates as 'unrealistic.' Companies cite concerns about competitive disadvantage if their sector pays more than other sectors, or if they pay more than competitors within their sector.

The Solution: Acknowledge that different sectors and company sizes have different capacities to contribute. Create transparent tiers that allow companies to participate at levels appropriate to their situation while maintaining pressure to scale up over time.

Tier	Company Profile	Contribution Rate	Benefits
Explorer	Small companies ($20-50M revenue) or first-time contributors testing the model	0.05% revenue or 0.5% profit (50% of indicative rate)	Basic certification, listing in Cali Fund registry, 2-year rate lock
Contributor	Medium companies ($50-500M revenue) or those scaling up from Explorer tier	0.075% revenue or 0.75% profit (75% of indicative rate)	Standard certification, marketing rights, steering committee observer status
Champion	Large companies ($500M+ revenue) meeting full indicative rates	0.1% revenue or 1% profit (full indicative rate)	Premium certification, COP speaking slots, steering committee voting seat, 'Cali Fund Champion' branding
Leader	Companies exceeding indicative rates or making transformative contributions	>0.1% revenue or >1% profit	All Champion benefits plus recognition as 'Cali Fund Leader,' priority access to fund allocation decision-making, featured case studies

Critical Design Features:

- Transparent Public Registry: All contributors listed publicly with their tier designation, removing ability for companies to hide behind competitors
- Upward Mobility Incentives: Companies committing to move up tiers within 3 years get preferential benefits from higher tier immediately
- Sector-Specific Adjustments: CBD Secretariat publishes 'sector maturity assessments' showing which sectors are meeting targets vs. lagging, creating peer pressure within industries
- Escalation Schedule: Explorer and Contributor tier rates increase by 0.01% annually until reaching Champion level, preventing companies from remaining in lower tiers indefinitely
- Impact Reporting: All tiers require annual reporting on DSI usage and biodiversity impact, making contributions proportional to benefit received

This tiered approach addresses the ABPI's concern that 'one size fits all' rates are unrealistic, while maintaining pressure for companies to scale contributions over time. It also allows the CBD to secure early contributions from companies testing the model, building momentum for broader participation.

6. IMPLEMENTATION ROADMAP

This section provides a pragmatic 18-month implementation roadmap for the five strategic recommendations. The timeline is designed to generate early wins (first contributions within 6 months) while building infrastructure for long-term success.

Phase 1: Foundation (Months 1-3)

Establish First Mover Coalition Framework

- Draft coalition benefits package with legal review to ensure compatibility with competition law
- Create promotional materials (infographic, 1-pager, FAQ) explaining benefits to corporate sustainability officers
- Identify 30 target companies across pharmaceuticals, cosmetics, agriculture, and biotechnology sectors
- Secure endorsements from 2-3 respected voices (e.g., UNEP Executive Director, prominent indigenous leader, Nobel laureate)

Publish ESG Integration Guidance

- Convene working group with TNFD, GRI, Science-Based Targets Network to draft integration guidelines
- Develop template language for TCFD/TNFD/CSRD disclosures
- Create interactive assessment tool showing companies how Cali Fund fits their existing commitments
- Launch webinar series for corporate sustainability officers

Finalize Tiered Contribution Framework

- Socialize tier concept with COP Bureau and key CBD Parties to ensure political acceptance
- Develop certification process and branding for each tier
- Create public registry website showing all contributors with transparent tier designations

Milestone by End of Month 3: Complete policy frameworks published, First Mover Coalition ready to launch, ESG guidance available, tiered structure operational

Phase 2: Early Engagement (Months 4-6)

Launch First Mover Coalition Outreach

- Executive Secretary personally contacts CEOs of 30 target companies with coalition invitation
- Host 3 virtual roundtables for interested companies to ask questions in non-competitive setting
- Provide each interested company with customized proposal showing their specific contribution amount under different tiers
- Target: Secure first 3 commitments by end of Month 6 (even if Explorer tier to demonstrate momentum)

Establish Development Bank Partnerships

- Sign MOU with CAF and IDB to provide technical assistance for pilot bank program
- Identify 3-5 pilot banks across LAC meeting eligibility criteria
- Negotiate technical assistance grants ($150K-250K per bank) to cover MRV implementation
- Establish green bond purchase commitments from development banks (30-50% of each issuance)

Begin Technology Infrastructure Development

- Issue RFP for blockchain-based contribution registry development

- Launch certification process for MRV technology platforms (receive applications, conduct technical reviews)
- Establish technology advisory committee with representatives from major DSI databases

Milestone by End of Month 6: First 3 company commitments secured (even if not yet disbursed), pilot banks selected and agreements signed, technology development underway

Phase 3: Implementation (Months 7-12)

Scale First Mover Coalition

- Announce first 3 contributors publicly with press conference and social media campaign highlighting 'Pioneer' status
- Use momentum from first contributions to approach next wave of 20+ companies
- Target: Reach 10 total First Mover contributors by Month 12 across diverse sectors
- Close First Mover Coalition to new members at Month 12, transition to standard tiered framework

Execute Pilot Bank Program

- Deploy MRV technology platforms at 3-5 pilot banks with technical support
- Conduct carbon baseline assessments for each bank's operations and loan portfolios
- Begin green bond structuring process including Second Party Opinion procurement
- Work with national banking regulators to expedite approval processes

Launch Technology Infrastructure

- Deploy blockchain contribution registry (public beta)
- Certify 2-3 MRV platforms and publish on pre-qualified directory
- Process first contributions through blockchain system, issue NFT certificates
- Negotiate volume discounts with certified MRV platform providers

Milestone by End of Month 12: 10+ First Mover contributors secured, pilot banks have operational MRV systems, blockchain registry processing contributions, $1-2M total contributed to Cali Fund

Phase 4: Scaling (Months 13-18)

Execute Pilot Green Bond Issuances

- Complete bond issuances for 3-5 pilot banks ($25-50M each) with Cali Fund contribution commitments
- Document case studies showing ROI, investor reception, operational benefits
- Create replication toolkit for other banks to follow model
- Expand program to 10+ additional banks in second cohort

Broaden Contributor Base

- Launch outreach to cosmetics and agricultural biotechnology sectors (beyond pharma focus)
- Target 30+ new contributors across all tiers (Explorer through Leader)
- Publish first annual report showing total contributions, breakdown, geographic distribution
- Develop sector maturity assessments showing which industries are meeting targets vs. lagging

Prepare for COP17 Presentation

- Compile comprehensive progress report for COP17 (likely Q4 2026)
- Feature First Mover contributors in speaking roles and side events
- Showcase pilot bank green bonds as replicable model
- Propose refinements to tiered framework based on lessons learned

Milestone by End of Month 18: 40+ total contributors secured, $5-10M annual contribution rate established, pilot green bonds successfully issued, model proven replicable, positive momentum heading into COP17

7. CONCLUSION

From Ambition to Action

The Cali Fund represents one of the most innovative biodiversity financing mechanisms created under the Convention on Biological Diversity. It has the potential to mobilize billions of dollars annually from private sector entities that benefit from nature's genetic resources, channeling those resources back to the biodiversity-rich countries and indigenous communities who are the stewards of that genetic wealth.

But potential is not enough. Five months after launch, the Fund remains relative empty. This document has diagnosed why: voluntary contributions suffer from a collective action problem, industry lobbying has successfully discouraged participation, and the current approach—focusing exclusively on pharmaceutical companies as first contributors—has produced zero results.

The recommendations in this document offer a path forward:

- Make being first attractive through exclusive benefits that outweigh coordination pressure
- Eliminate confusion by clearly showing how Cali Fund contributions integrate with existing ESG frameworks
- Establish parallel track through financial sector partnerships with development banks, creating replicable models that can scale
- Build technology infrastructure that makes contributions transparent, verifiable, and automated
- Acknowledge different capacities through tiered framework while maintaining pressure to scale over time

These are not theoretical proposals. They are grounded in direct experience at COP16, informed by ongoing work with a regional bank developing a technology-enabled contribution model, and validated by analysis of what has prevented contributions to date.

The Window Is Closing

The next 6-12 months are critical. If the Cali Fund continues to sit empty through COP17 in 2026, the narrative will shift from 'promising mechanism' to 'failed experiment.' Companies waiting to see if others contribute will interpret continued inaction as confirmation that contributions are optional. Indigenous communities will lose faith in multilateral processes. And the opportunity to demonstrate a new model for biodiversity finance will be lost.

Conversely, if the CBD Secretariat can secure even modest contributions in the next six months from 10-15 companies across different sectors and tiers, it demonstrates viability and creates momentum. Success breeds success. Companies see that others are contributing and face pressure from investors, employees, and customers to follow suit.

An Offer to Help

We are committed to making the Cali Fund succeed. We offer our services for the following:

- Facilitate connections between CBD Secretariat and regional banks interested in the pilot program model
- Provide technical guidance on MRV technology platform selection and implementation

- Assist with structuring green bond issuances that include Cali Fund contribution commitments
- Support development of blockchain-based contribution registry specifications
- Serve on technical advisory committees related to technology infrastructure

We make this offer not for commercial gain, but because we believe the Cali Fund represents a critical test of whether multilateral environmental agreements can evolve beyond voluntary commitments and aspirational targets to create real, lasting mechanisms for biodiversity protection.

The Opportunity for Latin America

As someone working across Latin America and the Caribbean, I see the Cali Fund as more than a financing mechanism—it's an opportunity for the region to lead on biodiversity finance in the same way it has led on conservation innovation.

Latin America holds 60% of global biodiversity but has long been relegated to 'beneficiary' status in international environmental finance. The Cali Fund offers a chance to flip that dynamic. By demonstrating that regional financial institutions can be active contributors—not just recipients—of biodiversity funding, we create a model where biodiverse countries are partners, not supplicants.

The pilot bank program proposed in this document positions Latin American institutions at the forefront of green finance innovation. It leverages regional development banks' existing commitments to channel capital toward climate and nature action. And it creates a replicable template that can scale across 570+ banks in the region.

That's the vision worth fighting for: not charity flowing from Global North to Global South, but Latin American institutions pioneering new models that the rest of the world follows.

Final Thoughts

I write this document with deep respect for the negotiators who created the Cali Fund, the CBD Secretariat staff working to implement it, and the indigenous representatives who fought to ensure 50% of funds flow directly to communities. Creating any multilateral agreement is difficult; creating one that asks companies to voluntarily contribute billions is extraordinary.

But ambition must be matched by implementation. The Fund's design—voluntary contributions, no enforcement mechanism, reliance on corporate self-reporting—reflects the political realities of international negotiations. Yet those same features create implementation challenges that require creative solutions.

The recommendations in this document are offered constructively, based on direct experience bridging the worlds of biodiversity policy, corporate finance, and technology implementation. They are not criticisms of what has been achieved, but proposals for how to move from architecture to action.

The Cali Fund can succeed. But success requires acknowledging that the current approach has not generated contributions, understanding why, and having the courage to try new strategies.

Time to act is now. The biodiversity crisis does not wait for perfect policy. Indigenous communities cannot afford another decade of empty promises. And the window for demonstrating that multilateral environmental agreements can drive real financial flows is closing.

Respectfully submitted,

Luis Fernando Lalinde, Founder

Energy Research Solutions LLC