



Building Trust, Scaling Impact: An Integrity Ecosystem for Carbon in the Amazon Region



AMAZON INVESTOR COALITION

EXECUTIVE SUMMARY

The Amazon rainforest, a vital climate frontier, faces urgent threats. As global interest in nature-based solutions grows, the voluntary carbon market has emerged as a powerful vehicle for channeling finance to forest protection and restoration. However, without high-integrity standards, carbon initiatives risk perpetuating extractive dynamics, alienating local communities, and undermining investor confidence. The time for action is now.

This position paper outlines Amazon Investor Coalition's strategic vision for establishing a credible, high integrity, inclusive, and effective carbon market ecosystem in the Pan-Amazon. Grounded in rights-based principles and informed by rigorous contextualization, the document outlines the rationale for action and introduces a regionally adapted integrity framework to guide project development, evaluation, and engagement.



Infographic 1- Silva, A. B. F. Carbon Market Failures in the Amazon. Infographic created by the author.

We call on all stakeholders to actively support a transition from transactional, low-credibility markets to transformational investments in socio-ecological resilience, going beyond carbon accounting and aligning capital flows with long-term environmental, social, and political outcomes.

The Amazon Investor Coalition is a trusted ally and convener, dedicated to strengthening the integrity of the carbon ecosystem across the Amazon. While we do not provide support to specific carbon projects, we promote systemic integrity by curating knowledge, facilitating technical exchanges, and fostering contextual understanding. Our approach connects territorial actors with global stakeholders, empowering informed decision-making and directing capital toward ecosystem-wide efforts that are credible, effective, and grounded in Amazonian realities.

Integrity is not an add-on. It is the foundation for any serious climate strategy in the Amazon. The AIC invites all stakeholders to join this collective effort to build a carbon economy that delivers not only verifiable credits, but enduring value for people, the rainforest, and the planet.



JUSTICE, FORESTS, AND THE PROMISE OF CARBON FINANCE

The Amazon is not only the epicenter of planetary biodiversity and a regulator of global climate stability, it is also a deeply interdependent socioecological system shaped by centuries of territorial care, cultural continuity, and environmental stewardship exercised by Indigenous Peoples and traditional communities¹. These populations are not peripheral actors in conservation; they are the central agents in cultivating knowledge systems, institutions, and practices that sustain the forest's ecological equilibrium². Positioned on the frontlines of environmental defense, their territories represent some of the most effective and enduring natural climate solutions available to humanity³.

Yet, paradoxically, those who most actively sustain the Amazon's ecological functions are often excluded from the economic, institutional, and legal architectures that govern its protection⁴. The ecosystem services they maintain (including carbon sinking and sequestration, water regulation, and biodiversity preservation) are routinely undervalued or rendered invisible in climate finance mechanisms⁵. This exclusion is not merely a technical oversight; it is a manifestation of deeper structural asymmetries, in which those who safeguard the forest are systematically denied access to the benefits and resources that their stewardship enables.

Confronting this imbalance demands more than symbolic recognition or programmatic inclusion. It requires the deliberate construction of financial architectures that are both methodologically rigorous and ethically grounded, capable of transferring resources in ways that reinforce territorial rights, strengthen local governance, and preserve the Amazon's cultural and ecological diversity.

Among such mechanisms, Payments for Environmental Services (PES), and particularly

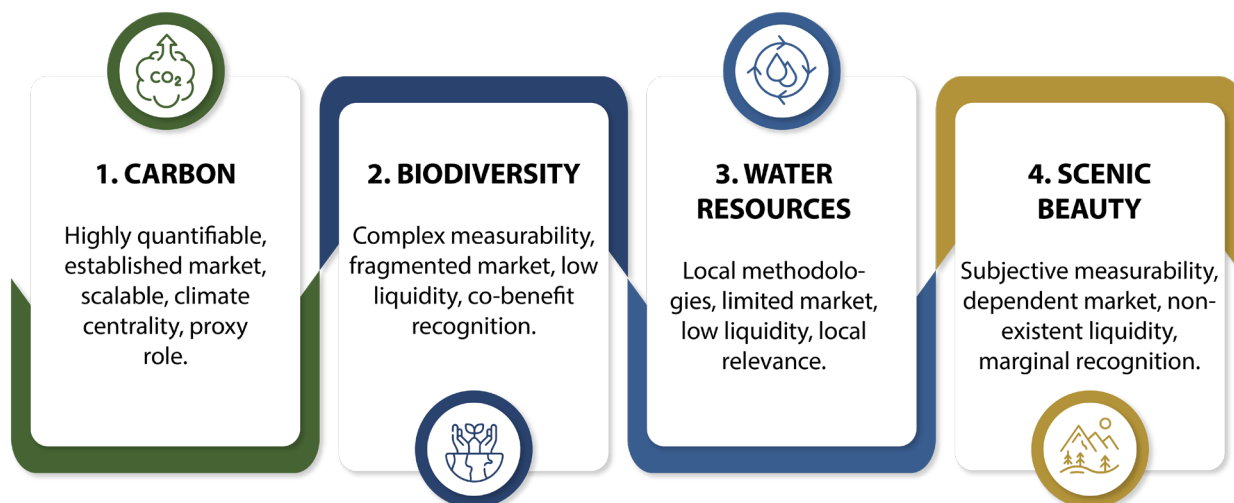
those linked to carbon sequestration and the prevention of deforestation, emerge as some of the most viable instruments for operationalizing environmental justice in forest territories. When designed with precision and embedded in local sociocultural contexts, PES initiatives can transcend transactional logic and become transformational tools that not only compensate traditional communities for their contributions, but empower them as central agents in governing forests and ensuring their future longevity⁶.

WHY CARBON MARKETS IN THE AMAZON MATTER

The Amazon region remains vulnerable to a persistent economic paradox: under current conditions, deforestation is often more financially rewarding than conservation. This inversion of value lies at the heart of forest degradation in the Pan-Amazon and underscores the urgent need for financial mechanisms capable of realigning incentives in favor of standing forests.

Well-designed Payments for Environmental Services (PES) programs can deliver transformative social benefits, particularly in ecologically rich and legally complex territories such as Indigenous lands, agrarian reform settlements, and traditional communities. When financial flows derived from PES are properly structured, they enable the adoption of sustainable practices, reinforce territorial autonomy, and strengthen local economies⁷.

DIFFERENT TYPES OF PAYMENTS FOR ENVIRONMENTAL SERVICES

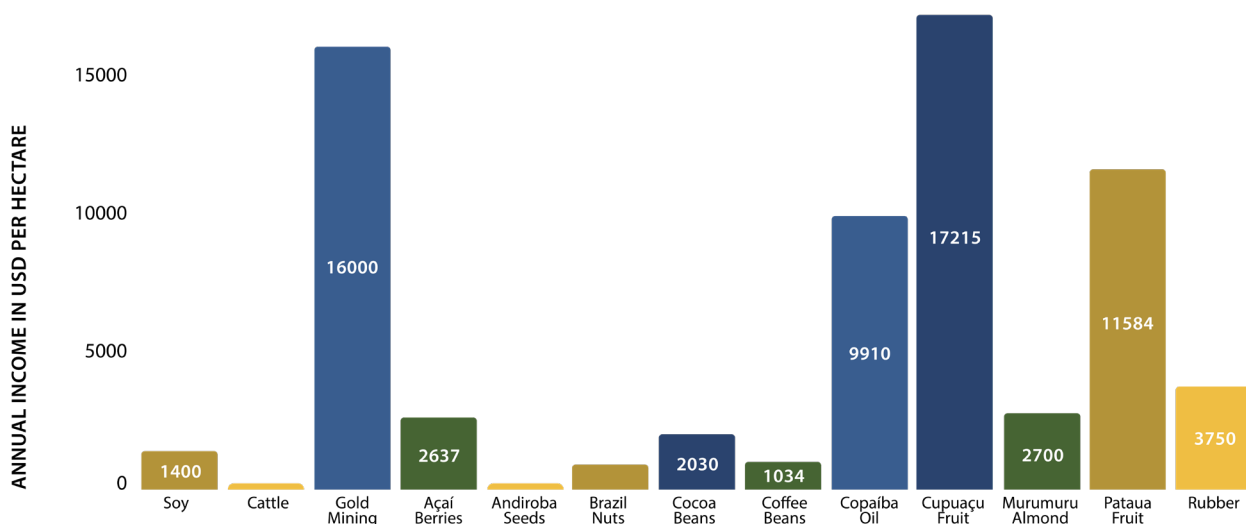


However, evidence also shows that PES mechanisms, and especially those related to carbon sequestration and storage, are not universally effective⁸. These financial instruments tend to perform best when forest loss is driven primarily by rational economic choices; when deforestation offers greater short-term gains than conservation. In contexts where forest degradation stems from other factors, such as land tenure insecurity or weak governance, PES are unlikely to be effective.

In this regard, the Amazon serves as a paradigmatic case. One of the region's most enduring drivers of deforestation is the high opportunity cost of conservation⁹. Whether driven by agriculture, cattle ranching, logging, or land grabbing, forest conversion often yields significantly higher short-term financial returns than preservation¹⁰. For instance, soy cultivation and cattle ranching generate approximately US\$1,000 and US\$250 per hectare per year¹¹, while standing forests still lack well-established, scalable and expedited income models to landholders. This dynamic perpetuates a perverse incentive structure that favors deforestation over conservation, deeply shaping land use patterns and weakening even the most robust environmental policies¹².

Yet this reality should not be viewed as a dead end, but rather as a turning point¹³. Regenerative forest-compatible economies (such as agroforestry systems and the bioeconomy) offer concrete, profitable, and sustainable alternatives¹⁴. A recent study by the [Amazon Investor Coalition \(AIC\)](#) shows that agroforestry in the Amazon can not only compete with but outperform conventional monocultures in terms of profitability¹⁵. Crops such as cupuaçu (up to US\$30,375/ha/year), cashew (US\$19,012/ha), and passion fruit (US\$13,553/ha), along with other Amazonian economies, as shown in the graphic 1, illustrate the economic potential of forest-based value chains, while preserving ecological integrity¹⁶.





Graphic 1: Comparative Profitability per Hectare in the Amazon.

Source: [Garret et al \(2017\)](#), [Ferreira \(2024\)](#); *The Conversation*, “[For cattle farmers in the Brazilian Amazon: money can’t buy happiness](#)”; *Amazon Investor Coalition*, [Amazon reforestation with a profitable twist](#).

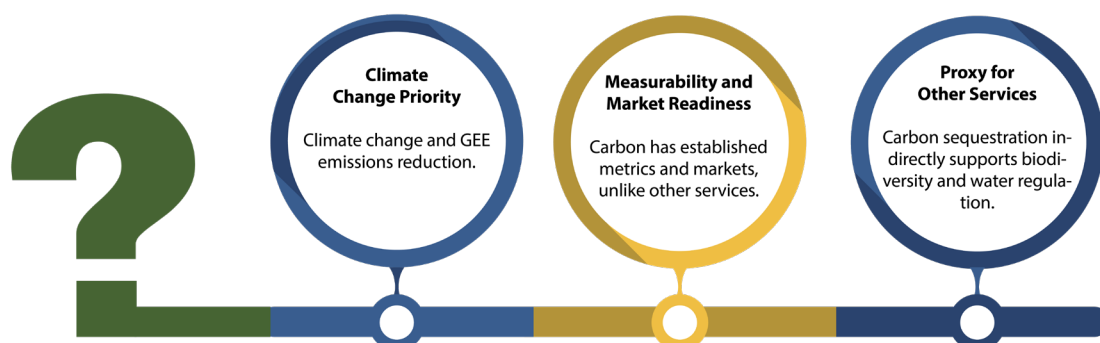
The viability of these alternatives depends not on replicating traditional development mechanisms, but on adapting financial instruments and policies to the specific territorial realities of the Amazon. Strategic investment, research and development, market access, and technology deployment must be designed in ways that reflect local ecological, social, and institutional contexts. With catalytic finance, long-term offtake agreements, and enabling public policies, it is possible to scale nature-positive value chains that promote inclusive development, forest conservation and climate resilience.

In this context, given the low availability of specific financial and economic mechanisms for sustainable development, support to regenerative

economies in the Amazon and direct incentives to maintain the forest standing, other instruments emerge as one of the few tangible mechanisms to finance conservation for conservation’s sake. Beyond that, it is essential to acknowledge the intrinsic value of the forest, environmental, climatic, sociocultural, and spiritual, and incorporate it into investment decisions and public policymaking.

Payments for ecosystem services, especially through carbon markets, play a key role in this process. By recognizing the climate value of carbon stored in forest ecosystems and converting it into financial flows, these instruments introduce explicit and measurable compensation for keeping forests intact.

Why focus on carbon sequestration and storage services over other ecosystem services?

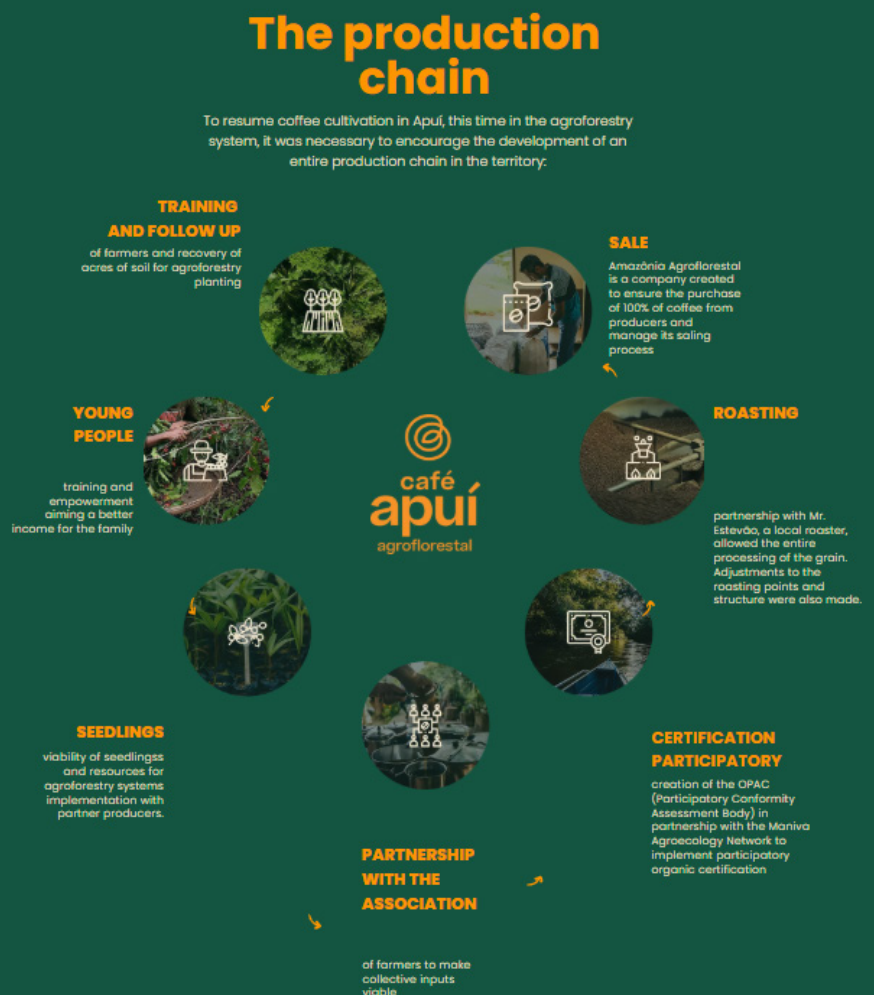


When aligned with the rights of local communities, carbon finance can also provide structural support to bioeconomy value chains by contributing to financing infrastructure, land tenure regularization, traceability systems, technical capacity building, and institutional governance. In this way, carbon is no longer an end in itself, but rather a strategic tool for enabling regenerative economies and strengthening the very ways of life that have long safeguarded the forest.

In this context, carbon markets emerge as a necessary component of a broader territorial strategy. As a performance-based modality of PES, they can redirect capital flows toward forest-compatible economic activities, reinforce community-led conservation, and help quantify the value of ecosystem services¹⁷. When implemented with integrity, these instruments not only reward climate-positive outcomes, but also contribute to scale local bioeconomies, fund ecosystem restoration, and promote rights-based forest governance.

CASE HIGHLIGHT: CAFÉ APUÍ AGROFLORESTAL

The Café Apuí Agroforestral project, led by Idesam and Amazonas Agroforestral, offers a compelling example of how carbon finance can support forest conservation, sustainable livelihoods, and regenerative economies. Operating in southeastern Amazonas, the initiative combines REDD+ mechanisms with agroforestry (coffee production) to prevent deforestation on family-owned properties. By providing technical assistance, organic certification, and access to premium markets, the project enables more than 40 local family farms to gain income both from low-impact agroforestry and from verified carbon credits generated from avoided deforestation and reforestation. This model illustrates the potential of high-integrity, community-based carbon projects to deliver tangible socio-environmental outcomes and strengthen forest-compatible value chains in the Amazon.



Source: IDESAM. (2024). The production chain of Café Apuí [Infographic]. Café Apuí Agroforestral. Available at: <https://www.cafeapui.com.br/>

Among these instruments, voluntary carbon markets stand out as an important and scalable, results-based tools available to contribute to make forest conservation economically viable, especially in territories where opportunity costs are high and state presence is limited. By attaching monetary value to avoided deforestation, restoration and carbon sequestration, these markets create additional pathways for rewarding forest stewardship, promoting sustainable production models, and channeling resources directly to the communities and actors who preserve ecosystems.

In short, carbon markets matter in the Amazon because they have the potential to reward those who preserve forests. When tailored to local realities, designed with equity, and governed with transparency, they offer a rare opportunity to align climate action with environmental justice in the world's most vital forest frontier.

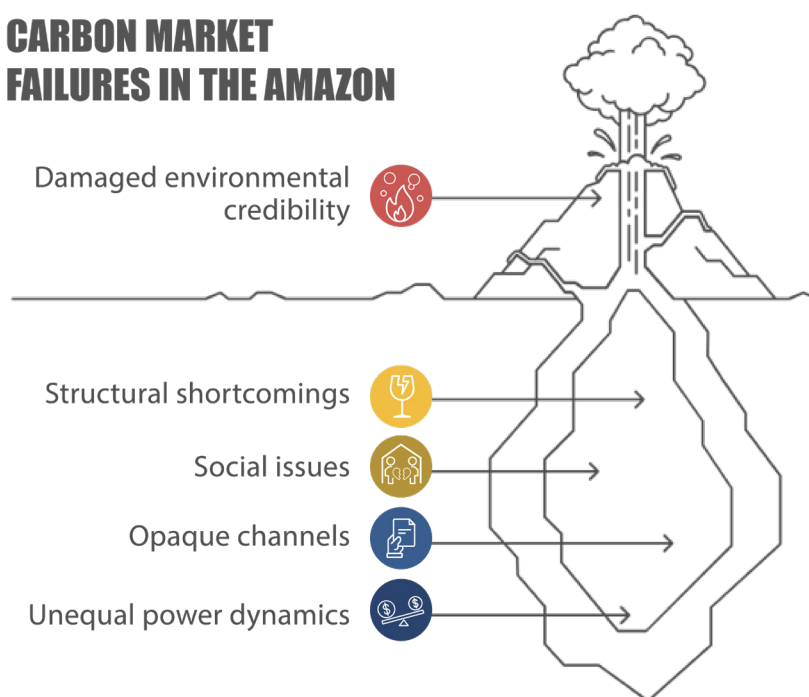
In theory, carbon markets present a compelling proposition: channeling finance to forest guardians while reshaping regional land-use dynamics in favor of low-emission, forest-compatible economies.

In practice, however, the implementation of carbon projects in the Amazon has been hindered by structural shortcomings. Poorly designed initiatives, marked by weak oversight, low transparency, and questionable methodologies, have damaged both the environmental credibility and institutional legitimacy of the market¹⁸. Some projects initially touted as climate solutions were later linked to land conversion and even illegal deforestation, eroding trust in nature-based carbon finance¹⁹.

The social issues associated with many of these projects have been equally damaging. Many initiatives failed to secure Free, Prior, and Informed Consent (FPIC) from locals and beneficiaries, sidelined local governance, or distributed benefits inequitably, fueling frustration, mistrust, and community fragmentation²⁰. The negative reputation of these failures, particularly arising from REDD+ projects, has become a core barrier to scaling high-integrity carbon solutions in the region.

THE INTEGRITY CRISIS: WHY CAUTION AND REFORM ARE URGENT

CARBON MARKET FAILURES IN THE AMAZON



Infographic 2- Silva, A. B. F. Carbon Market Failures in the Amazon. Infographic adapted by the author, based on original text.

Despite this, carbon finance is still advancing in the region, but largely through fragmented, opaque, and exclusionary channels. Many initiatives operate without safeguards, community engagement, or alignment with territorial governance. This expansion reflects market dynamics that have long prioritized extraction over resilience, risking the reproduction of the same unequal power dynamics that the carbon economy aims to address.

ACCOUNTABILITY IN ACTION: ANALYSING CARBON INTEGRITY IN THE AMAZON

A growing number of independent actors are now working to expose misconduct, identify systemic failures, and hold low-integrity carbon initiatives to account. The [Center for Climate Crime Analysis \(CCCA\)](#) is among the emerging institutions seeking to address structural weaknesses in voluntary carbon markets. Just as in the investigation conducted by the Brazilian Federal Police in which the CCCA acted as a technical partner by analyzing environmental and territorial information that revealed irregularities in emission reduction projects, leading to the conviction of developers and proponents; the organization is now seeking support to scale up a comprehensive review of carbon projects in the Brazilian Amazon. The goal is to identify other cases that may present potential patterns of misconduct, integrity gaps, and risks of fraud. These efforts reflect the growing scrutiny over nature-based climate finance and reinforce the importance of transparent, rights-based, and locally grounded safeguards.

These complexities also expose a broader truth: PES schemes are unlikely to succeed in all contexts, especially those with land tenure insecurity, institutional fragility, or widespread illegality, unless they are grounded in inclusive, adaptive, and context-sensitive governance. PES schemes only work when they respond directly to the economic calculus driving deforestation²¹. Where that calculus is distorted by land speculation or policy vacuums, financial incentives alone are insufficient.

The Amazon manifests this dilemma. One of its most entrenched drivers of deforestation has the high opportunity cost of conservation. Under the current economic logic, converting forest to pasture or speculative holdings often yields faster returns than preserving it. This incentive structure, compounded by rising land values, enforcement gaps, and structural inequality, continues to drive land-use decisions, even in ecologically critical areas.

Yet, carbon markets, when designed with integrity and are adaptable to the socioecological context of their region, remain promising and technically robust tools for reversing these incentives. By assigning value to verified emissions reductions or carbon sequestration they can redirect capital toward socio-bioeconomy actors, stabilize local incomes, and reinforce governance systems rooted in rights and forest stewardship. But this potential hinges on a single non-negotiable condition: integrity.

Integrity is not simply a benchmark, but instead it is the foundation for credibility, impact, and long-term viability. As trust in voluntary markets erodes, the window for proving that carbon finance can deliver real, equitable outcomes is narrowing fast.

This makes the construction of a high-integrity carbon market in the Amazon not only urgent, but imperative. It is a rare opportunity to align climate finance with resilience, justice, and development. For buyers, investors, and philanthropic actors, engaging now means helping shape a carbon ecosystem that is not only financially robust, but also socially legitimate and ecologically grounded.

That is the ambition a growing number of global frameworks seek to advance. The next section explores how these standards define integrity and what they offer for building a carbon architecture truly fit for the Amazon.

DEFINING HIGH INTEGRITY: WHAT GLOBAL FRAMEWORKS PROPOSE

Amid rising concerns over project underperformance, opaque governance, and limited community inclusion, particularly in high-stakes regions like the Amazon, a central challenge has emerged: how to ensure carbon finance is not only environmentally credible, but also socially legitimate and economically coherent.

In this context, “integrity” has emerged as a defining principle²². No longer limited to technical carbon accounting, it now encompasses alignment with ethical, environmental, social, and governance (ESG) standards. A high-integrity project is one that complies fully with legal frameworks, applies robust methodologies, and generates verifiable co-benefits, ensuring that carbon credits go beyond offsetting emissions to catalyze enduring climate and justice outcomes.

A constellation of global actors has mobilized to define and enforce this vision. The Integrity Council for the Voluntary Carbon Market (ICVCM), for example, has created the Core Carbon Principles (CCPs), criteria covering rigorous governance, scientifically sound emissions quantification, third-party validation, and safeguards to ensure permanence, additionality²³, and the avoidance of double counting. The CCPs also require clear socio-environmental co-benefits, transparency, and inclusive stakeholder engagement.

The United Nations Development Programme (UNDP) frames integrity in three interconnected pillars:

- **Supply-side standards: technical**

robustness (additionality, permanence, leakage prevention, transparency)

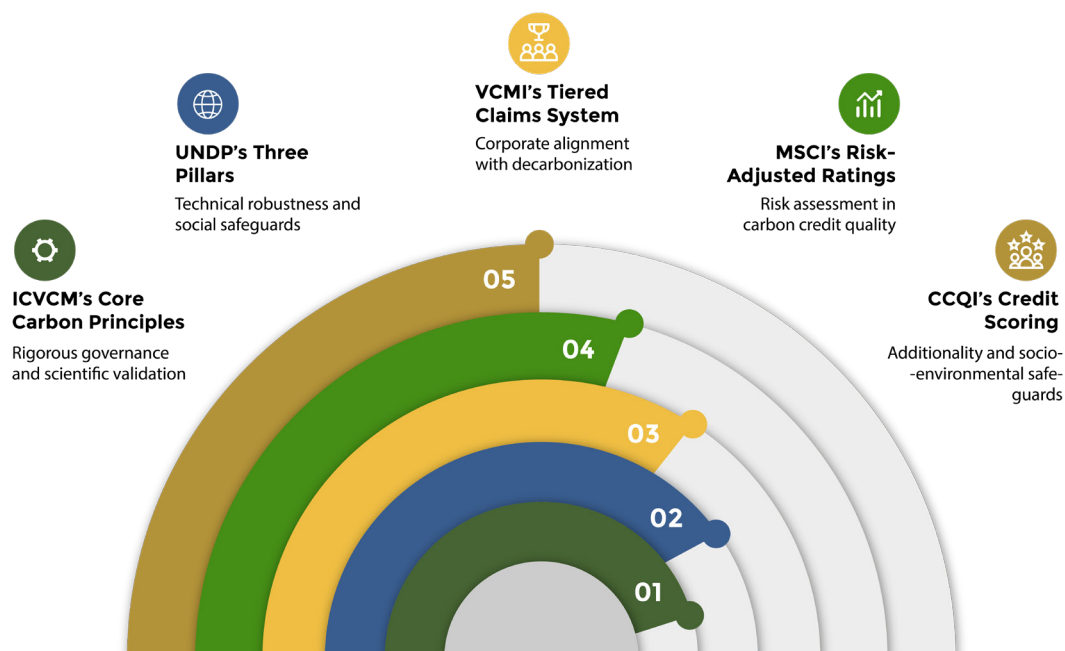
- **Social and environmental safeguards: FPIC, biodiversity protection, and equitable benefit-sharing**
- **Demand-side integrity: ensuring credit buyers pursue science-based targets and integrate offsets into credible net-zero strategies**

Similarly, the Voluntary Carbon Markets Integrity Initiative (VCMI) offers a tiered claims system (Gold, Silver, Bronze) to assess the alignment of corporate offsetting with science-based decarbonization, net-positive impacts, and public transparency, reinforcing the notion that integrity must span the full value chain.

Other relevant initiatives include MSCI’s risk-adjusted integrity ratings and the Carbon Credit Quality Initiative (CCQI), which scores credits based on additionality, quantification accuracy, permanence, and socio-environmental safeguards.

Together, these frameworks mark a significant evolution in the governance of voluntary carbon markets. They elevate expectations, standardize benchmarks, and help align actors around shared definitions of quality and credibility.

However, existing frameworks remain broad and generic; designed for global scalability rather than specific regional contexts. Applying them to the Pan-Amazon requires more than the translation of metrics; it demands a definition of integrity that incorporates territorial rights, cultural knowledge systems, and the political economy of forest governance.



Infographic 3- Carbon Integrity Standards Framework. Silva, A. B. F.
Infographic created by the author, based on original text.

THE AMAZON GAP: WHY ONE SIZE DOESN'T FIT ALL

This is precisely where the unique context of Amazon's distinctiveness demands a paradigm shift. To move beyond surface-level approaches to climate adaptation, integrity must be redefined through the lived realities of the people in the region, realities shaped by structural inequalities, legal pluralism, and a deep cultural interdependence with the forest. It is not enough to apply existing global metrics to the Amazon; the very notion of integrity must be co-constructed with those who inhabit, protect, and govern these territories.

Despite a growing global consensus on the need for high-integrity carbon markets, existing frameworks continue to fall short when applied to the Amazon.

Moreover, most international carbon certification frameworks were conceived in temperate contexts, grounded in assumptions of private land tenure, standardized governance, and relatively homogeneous legal systems. When transposed to

complex socio-ecological environments like the Amazon, these frameworks often fail to capture the realities on the ground. Methodologies that overlook customary tenure regimes, plural legal orders, and the mosaic nature of community-managed landscapes risk misrepresenting baseline conditions, underestimating implementation risks, and excluding the very actors essential to long-term forest conservation. This misalignment reinforces the Amazon Gap, where global standards, however well-intentioned, fall short of ensuring environmental integrity or justice in frontier forest regions.

The Amazon is a vast and heterogeneous territory, co-constructed over centuries through cultural knowledge, territorial governance, and interdependent relationships between people and nature. It sustains unparalleled biodiversity and the ways of life of thousands of Indigenous Peoples and traditional communities, while simultaneously facing deforestation, land speculation, illicit economies, and profound legal and institutional asymmetries. It is both a cornerstone of the global climate and a contested political landscape.

In such a context, applying generic integrity criteria that were originally calibrated for temperate biomes, private landholdings, or high-capacity project developers, risks generating distorted outcomes. Standardized metrics may disregard customary tenure systems, sidestep participatory governance, or impose technocratic requirements misaligned with local realities. Certification schemes that fail to secure Free, Prior, and Informed Consent (FPIC) or marginalize community voices not only compromise legitimacy, but also perpetuate historical exclusions.

Most global frameworks still prioritize narrowly defined environmental metrics, such as carbon sequestration volumes, additionality, and permanence, while offering limited guidance on equity, social safeguards, and collective rights. Yet in the Amazon, these so-called “co-benefits” are not secondary considerations; they are foundational. In a region where climate outcomes are inseparable from territorial rights and social resilience, integrity cannot be achieved without socioecological justice.

BRIDGING THE GAP: METHODOLOGIES THAT REFLECT AMAZONIAN REALITIES

In light of this persistent gap, a new generation of methodologies is taking shape, such as Brazil’s legal architecture, ecological specificity, and territorial complexity, and offering credible pathways toward alignment between global integrity standards and Amazonian realities. Two notable examples are:

- **Tero Carbon:** A Brazilian certification standard that aligns with national legislation, recognizes community governance, and integrates socio-environmental safeguards specific to tropical forest contexts. Its approach emphasizes transparency, local legitimacy, and traceability throughout the project cycle.
- **re.seed:** A data-driven platform designed to certify regenerative land stewardship, especially among smallholders and traditional communities. By combining digital monitoring with local engagement, it creates verifiable carbon credits rooted in forest-compatible practices and inclusive benefit-sharing.

These initiatives illustrate how carbon methodologies can evolve to reflect regional realities moving beyond standardization toward legitimacy, effectiveness, and justice.

Building a high-integrity carbon market in the Amazon is not a matter of applying international standards, but it is a matter of reimagining them. The path forward requires a paradigm shift: one that moves from generic compliance to genuine co-creation. Only by embedding integrity into the cultural, ecological, and political fabric of the region we can unlock the full potential of carbon finance to advance conservation, strengthen governance, and deliver justice at scale.

STRATEGIC COLLABORATION FOR A CONTEXTUALIZED INTEGRITY FRAMEWORK

The Amazon Investor Coalition (AIC), in partnership with the Voluntary Carbon Markets Integrity Initiative (VCMI), is co-developing a Best Practices Guide tailored to the socioecological realities of the Brazilian Amazon. This initiative will deliver actionable integrity guidance to investors, buyers, communities, philanthropists, and project developers.

OUR POSITION: STRENGTHENING A HIGH INTEGRITY ECOSYSTEM IN THE AMAZON

Situated at the intersection of dominant global paradigms and the socio-ecological distinctiveness of the Pan-Amazon, the Amazon Investor Coalition (AIC) advances a regionally grounded vision of carbon integrity. From our perspective, high-integrity carbon finance must transcend narrow notions of technical compliance; it should operate as a transformative lever for environmental stewardship, socio-economic reconfiguration, and climate justice. Realizing this vision requires mechanisms anchored not only in scientific robustness and legal coherence, but also in territorial legitimacy and genuinely participatory governance.

To realize this potential, efforts to establish

carbon credit systems must operate within broader strategies to redirect climate capital toward the Amazonian bioeconomy, support forest-compatible livelihoods, and reinforce community-led conservation. Nature-based solutions cannot be reduced to narrow technical metrics, they must be grounded in territorial realities and deliver outcomes that enhance the resilience of both ecosystems and the populations who sustain them.

The AIC therefore proposes a framework of integrity guidelines structured around three core pillars: Governance and Legitimacy, Environmental Robustness, and Social Justice and Inclusion. These pillars encompass guiding principles for investors, project proponents, and credit buyers committed to scaling climate finance with fairness, credibility, and contextual relevance.

To support a high-integrity carbon ecosystem in the Amazon, our forthcoming '[Guidelines of best practices for carbon projects in Brazilian Amazon](#)' will detail a set of core principles that should underpin all forest carbon initiatives in the region. These include commitments to legal legitimacy, community participation, environmental effectiveness, and fair benefit-sharing. Projects must go beyond technical compliance to ensure they are rooted in legitimate governance structures, aligned with local realities, and centered on the rights and leadership of Indigenous Peoples and Traditional communities. By setting clear expectations for what integrity looks like in practice, the guide will serve as a reference for stakeholders committed to climate action that is just, transparent, and ecologically sound.

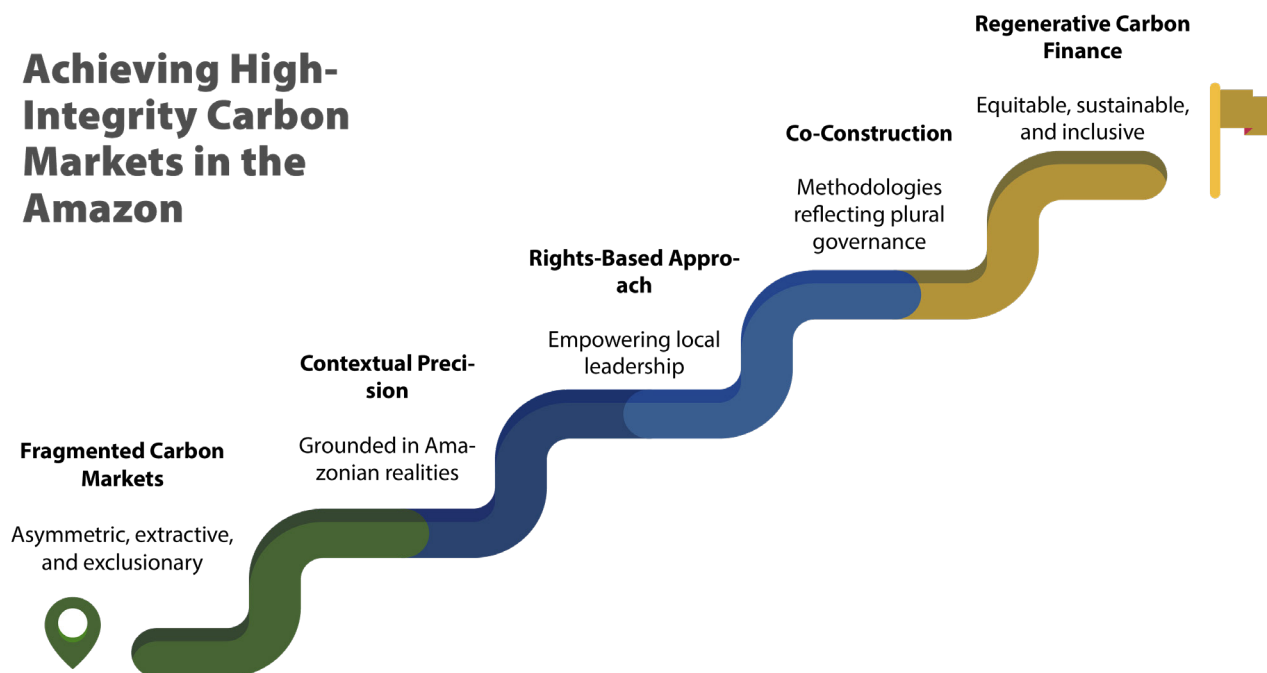
These principles are not abstract ideals, they are designed to confront the Amazon's structural challenges and translate its vast potential into credible, enduring outcomes. They reflect a core conviction: that high-integrity carbon markets are not defined solely by scientific criteria, but by their capacity to build trust, anchor legitimacy, and deliver measurable value to forest ecosystems and the communities that

sustain them. For the AIC, this framework is both compass and mandate guiding how we engage, assess, and shape the emerging carbon economy in the region.

The AIC acts as a strategic ally and catalyst for socioecological integrity, working across sectors to elevate the standards of carbon market

practice in the Amazon. We help create the enabling conditions under which high-integrity initiatives can emerge, attract responsible capital, and scale with longevity. Through independent analysis, contextual discernment, and technical engagement, we align global climate finance with Amazonian realities.

Achieving High-Integrity Carbon Markets in the Amazon



Infographic 4- Achieving High Integrity Carbon Markets in the Amazon. Silva, A. B. F.
Infographic created by the author, based on original text.

SUPPORTING A KNOWLEDGE-BASED ECOSYSTEM

The AIC recognizes that no single actor can strengthen the foundation for high-integrity carbon markets alone. A credible and inclusive ecosystem depends on shared knowledge, strengthened local capacity, and accessible tools. In this spirit, several aligned initiatives have played a key role in advancing transparency, education, and technical empowerment across the Amazon. Organizations such

as Forest Trends, the Kawari Fund, and LaClima have worked alongside communities to provide training, produce context-sensitive guidance, and facilitate informed engagement in carbon markets. These efforts, grounded in rights-based approaches, contribute to building a new generation of forest stewards capable of navigating and shaping the future of climate finance from the ground up.

TOWARD A HIGH-INTEGRITY CARBON ECOSYSTEM IN THE AMAZON

The Amazon is not merely a forest, it is a living socioecological system, sustained by ancestral knowledge, collective stewardship, and deeply rooted territorial governance. Yet, this system faces the compounded threats of ecological collapse and institutional exclusion, standing at the crossroads of immense opportunity and escalating risk. On one side, carbon markets, when underpinned by integrity, contextual precision, and rights-based approaches offer a relevant opportunity to recalibrate economic incentives in favor of forest conservation and territorial resilience. On the other, fragmented governance, extractive economic paradigms, and the indiscriminate application of global frameworks risk replicating the very asymmetries these instruments seek to transform.

This position paper has advanced the view that, in the Amazon, carbon markets must aspire to more than technical robustness. To be legitimate, effective, and enduring, they must be territorially grounded, socially equitable, and ecologically coherent. In this context, integrity is not a fixed benchmark, but a process of co-construction, demanding methodologies that reflect plural governance systems, mechanisms that empower local leadership, and safeguards that uphold equity, participation, and transparency throughout the value chain.

The Amazon Investor Coalition does not finance, directly contribute or certify projects. Our role is to fortify the enabling environment for integrity to take root, by bridging global governance frameworks with Amazonian realities, amplifying context-responsive practices, and fostering transparency, informed and accountable decision-making across actors.

In a region where the dominant development model continues to incentivize deforestation

and systematically marginalize traditional communities, carbon finance, when and if anchored in socioecological inclusion and high-integrity design, can contribute to reorient capital flows, further recognize and reinforce community-led governance, and support the emergence of sustainable, locally anchored economies.

Within this vision, carbon finance is not an end in itself, but a catalytic pathway toward regenerative economies, forest-compatible livelihoods, and long-term socioecological resilience. For AIC, advancing integrity entails moving beyond procedural compliance, it means building trust, defending territorial sovereignty, and amplifying the leadership of those who have long safeguarded the forest.

Yet this promise will only materialize if deliberate action is taken now to ensure that carbon markets are transparent, legitimate, and rooted in justice. Advancing high integrity requires nothing less than a structural shift anchored in territorial governance, accountability, and systemic transformation.

Carbon markets in the Amazon must be co-created for the forest, with the people who protect it, and in pursuit of measurable, equitable, and lasting climate outcomes. This is not merely a technical challenge, it is a collective imperative.

High-Integrity is not the destination; it is the point of departure for any credible effort to unlock the Amazon's climate potential. The Amazon Investor Coalition stands ready to collaborate with all those committed to shaping a carbon economy that is environmentally sound, socially just, and aligned with the urgent demands of our planetary future.



Infographic 5 - Call for Collective Action to a High Integrity Carbon Ecosystem. Silva, A. B. F.
Infographic created by the author, based on original text.

¹ This perspective is grounded in extensive academic literature that has demonstrated how long-standing community-based governance systems can sustain ecological resilience while preserving cultural identity. Works of [Berkes & Folke, on 1995](#) and [Ostrom on 2015](#) have shown that ecosystems governed through local knowledge and collective stewardship often outperform centralized models in maintaining biodiversity and regulating resource use over time. This process of ecological resilience and cultural resilience reinforcing each other is referred to as a “socioecological system.”

² Decades of research have shown that territories under Indigenous governance tend to exhibit lower deforestation rates, higher biodiversity, and greater carbon storage capacity than other territories. These outcomes are not incidental, but are the result of longstanding institutions, cultural practices, and knowledge systems that foster ecological equilibrium and territorial care. As recognized by the [United Nations](#) and [scientific institutions](#), these socioecological systems offer some of the most effective and enduring models of climate resilience available today.

³ As demonstrated by [Alejo et al., \(2021\)](#), Indigenous territories not only maintain lower deforestation rates than surrounding areas, but also preserve large, continuous carbon stocks, acting as natural climate solutions.

⁴ While their territories are statistically among the most effective in preventing deforestation and sustaining biodiversity, these populations rarely receive financial compensation or policy recognition for the environmental services they provide, as shown by [Horn \(2025\)](#).

⁵ Many existing environmental finance mechanisms, such as carbon markets or Payments for Environmental Services (PES), are not designed to reflect the administrative capacities, cultural values, or socio-territorial realities of traditional communities. As highlighted by [Pagiola, Arcenas and Platais \(2005\)](#), overlooking these contextual factors can lead to inequalities in implementation that undermine the socioeconomic and consequently, socioecological justice of such mechanisms. Although PES schemes may generate synergies between environmental protection and poverty alleviation when carefully adapted to local conditions, their default structures often privilege actors who are already better positioned to engage, reinforcing existing inequalities and excluding traditional communities from the benefits. Consequently, as demonstrated by [Tupiassu, Ferreira, Gross-Demeaux, Souza and Lopes \(2020\)](#) and [Horn \(2025\)](#), when these mechanisms fail to align with the social, economic, and ecological conditions of the territories, those who contribute most to the preservation of forest ecosystems often benefit the least from the economies they sustain, an imbalance that highlights the urgent need for socioecological approaches that center justice, equity, and the self-determination of traditional peoples in the design and governance of climate finance instruments.

⁶ [Ana Maria Nusdeo \(2013\)](#), argues that Payments for Environmental Services (PES), when structured with socioecological equity and tailored to local realities, can serve as transformational instruments of social change. Rather than functioning as mere compensation mechanisms, they recognize the active role of traditional communities in maintaining ecosystem services and promote their inclusion in territorial governance, thereby advancing environmental and climate justice.

⁷ [See Nusdeo \(2013\)](#), as previously referenced on footnote 6.

⁸ As [Stefano Pagiola \(2005\)](#) demonstrates, the effectiveness of Payments for Environmental Services (PES) is closely tied to the underlying drivers of deforestation. When forest conversion is primarily motivated by economic incentives such as the pursuit of short-term financial returns through agriculture, cattle ranching, or land speculation, PES mechanisms that improve the profitability of conservation can be highly effective. However, in contexts where deforestation is caused by other factors, such as land tenure insecurity, legal ambiguity, or systemic governance failures, financial incentives alone are insufficient in shifting behaviors. In such cases, PES may not be the best strategy to address deforestation.

⁹ One of the main reasons why deforestation persists in the Amazon is that, under current economic conditions, it is often faster and more profitable to convert forests into pastures, croplands, or other land uses than to conserve them. This dilemma is known as the “opportunity cost of conservation.” Opportunity cost refers to the value of economic opportunities lost when choosing one course of action over another, as explained by [Dixon & Pagiola \(1998\)](#). In the context of deforestation and forest conservation, it specifically relates to the economic cost of environmental protection, the benefits forgone by preserving an area instead of converting it to alternative land uses, as demonstrated by [Pagiola \(2011\)](#) and [Wunder \(2013\)](#). In this case, it reflects the economic value that is sacrificed when opting for environmental protection over more immediately lucrative development alternatives. Therefore, reducing deforestation inherently involves opportunity costs: the difference in net benefits between maintaining the forest and adopting other economically productive land uses. In the Amazon, as demonstrated by [Motta \(2002\)](#), there is a clear trade-off between the immediate gains derived from unsustainable extractive practices and the long-term benefits of sustainable forest use. Extractive activities associated with deforestation (such as logging and cattle ranching) frequently yield higher short-term financial returns than conservation. These opportunity costs are particularly high in this context, making deforestation an attractive option in the short term

under current market conditions. As highlighted by [Kirby et al. \(2006\)](#), in terms of land-use activities, cattle ranching and small-scale agriculture have historically played the most significant role in Amazon forest clearing. As a result, Brazil became the global leader in tropical deforestation, averaging 19,500 km² of forest loss per year between 1996 and 2005, with the expansion of the beef and soy industries emerging as the main drivers of this process according to studies from [Malhi et al. \(2008\)](#). These findings illustrate the economic drivers behind deforestation and help explain why, under current conditions, conservation tends to lose out to more immediately profitable land-use alternatives. Due to the high opportunity cost of conservation, combined with the short-term gains offered by environmentally degrading extractive economies, ecosystem preservation is often sidelined in favor of land uses that generate quicker financial returns.

¹⁰ As discussed in the previous sections and further demonstrated by [Motta \(2002\)](#), activities linked to deforestation in the Amazon Region, often generate higher short-term economic returns than environmental preservation, making the opportunity costs of preservation particularly high in the current economic context.

¹¹ Data sourced from the report “*Reforesting the Amazon with a Profitable Footprint*”, published by the Amazon Investor Coalition. The publication outlines the economic potential of forest restoration in the region, highlighting sustainable business models that combine financial return with environmental conservation. Available at: <https://amazoninvestor.org/pt/reflorestamento-da-amazonia-com-uma-pegada-lucrativa/>.

¹² As discussed in the previous sections, the deforestation data from the Brazilian Amazon demonstrates that prevailing economic logic remains rooted in extractivist dynamics and trade flows that are fundamentally incompatible with local socioecological systems. As highlighted by [Nobre, C.A. et al. \(2023\)](#), the region operates on the basis of degrading economic activities, functioning primarily as a supplier of low value-added raw materials. It exports natural resources while importing goods and services with higher levels of technological sophistication, resulting in a trade deficit and a carbon surplus, with production chains that are highly intensive in deforestation. Consequently, as evidenced by [Nobre, C.A. et al. \(2023\)](#), the social and environmental costs of degradation are being internalized locally, while the economic benefits are appropriated externally, producing structural imbalances between the socioenvironmental burdens of extractive value chains and the financial returns they generate.

¹³ As previously discussed, building an economic model that reconciles socioecological equity with sustainability in the Amazon requires a comprehensive restructuring of the economic incentives currently guiding land use in the region. These incentives must be redesigned to recognize and reward standing forest value, in alignment with the dynamics and specificities of local socioecological systems. Despite the high opportunity costs associated with replacing forest cover with environmentally degrading land uses, studies such as [Motta \(2002\)](#) demonstrates that the sustainable use of forest resources holds significant potential for annual revenue generation. This positions it as a viable economic alternative to conventional degradation practices. However, realizing this potential depends on the ability to effectively internalize such economic structures into local markets, making them competitive within the prevailing economic logic. In this regard, [Tupiassu et al. \(2020\)](#) highlight that economic instruments such as Payments for Environmental Services (PES) can offer effective responses to the challenge of opportunity costs, particularly in agricultural frontier areas where deforestation tends to yield more immediate financial returns. Nonetheless, the effectiveness of such instruments depends on their capacity to reflect local realities and embed the specific characteristics of the socioecological systems in which they operate. Many studies demonstrate how this could be implemented, such as the research from [Nepstad et al. \(2009\)](#) underscores that establishing this new economic framework is not only feasible but essential to achieving Brazil’s deforestation reduction targets, but requires moving beyond mere financial compensation for conservation, demanding robust investments in sustainable productive activities capable of transforming the economic drivers currently fueling environmental degradation. When designed with territorial sensitivity and socioecological justice, these instruments can help generate an economic valuation of standing forests that is compatible with their multiple ecological, social, and economic benefits.

¹⁴ This proposition is supported by the studies from New Amazonian Economy (NEA) from [Nobre, C.A. et al. \(2023\)](#) framework, which demonstrates that productive arrangements rooted in forest conservation and ecological restoration not only generate inclusive employment and income for traditional populations, but also contribute to national climate goals. According to the NEA, scaling up these regenerative value chains can promote economic growth while reducing emissions, preserving biodiversity, and expanding forest cover.

¹⁵ Building on this perspective, our study presents concrete economic data through a comparative analysis that reinforces the viability of forest-compatible production systems, based on data sourced from the report “*Reforesting the Amazon with a Profitable Footprint*”. The publication outlines the economic potential of forest restoration in the region, highlighting sustainable business models that combine financial return with environmental conservation. Available at: <https://amazoninvestor.org/pt/reflorestamento-da-amazonia-com-uma-pegada-lucrativa/>.

¹⁶ Data sourced from the report “*Reforesting the Amazon with a Profitable Footprint*”, published by the Amazon Investor Coalition. The publication outlines the economic potential of forest restoration in the region, highlighting sustainable business models that combine financial return with environmental conservation. Available at: <https://amazoninvestor.org/pt/reflorestamento-da-amazonia-com-uma-pegada-lucrativa/>.

¹⁷ This means that carbon markets, when well designed, can serve as an essential financial tool to make forest conservation economically viable. As shown in the Amazon Investor Coalition’s field experience with community-led reforestation, carbon credits can create a reliable and scalable revenue stream that rewards local actors for preserving and restoring forests, while also creating other economic opportunities. In the reforestation model envisioned by the [AIC](#), Amazonian communities would implement regenerative agroforestry systems that combine native species, food crops, and biodiversity restoration. These systems are not only environmentally sustainable but also economically productive, generating income from multiple sources, including carbon finance. In this system, carbon markets would help shift the economic logic of the Amazon Rainforest: rather than deforesting their land for short-term profit, landholders could earn steady income by keeping forests intact and engaging in sustainable land use.

¹⁸ [A 2023 report by The Guardian](#), based on multiple scientific studies, concluded that over 90% of rainforest carbon offsets approved by the world’s leading certifier (Verra) were likely “[phantom credits](#)” with no real impact on deforestation. This controversy sparked global debate over the reliability of voluntary carbon credits and highlighted the systemic risks of operating without robust verification, transparency, and local accountability.

¹⁹ A notable example is provided by [West et al. \(2020\)](#), whose analysis of REDD+ projects in the Brazilian Amazon revealed that many credited areas exhibited no detectable difference in deforestation rates compared to non-project areas, raising serious concerns about additionality and effectiveness. These concerns are not merely academic. In 2023, the Brazilian Federal Police launched a [high-profile investigation](#) into the irregular sale of carbon credits allegedly issued from lands subject to environmental crimes, including deforestation and fraudulent claims of ownership. Together, these examples highlight the urgency of grounding carbon finance in credible methodologies, transparent governance, and rigorous legal safeguards.

²⁰ A growing body of evidence reveals that multiple carbon projects across the Amazon have operated in violation of Indigenous and community rights. The [Ka’apor people achieved a major legal victory](#) in 2024 against a carbon offset company that had initiated negotiations and claimed project development [without securing proper FPIC](#). In the Brazilian state of Pará, the State Public Prosecutor’s Office (MPPA) issued a [technical note identifying systemic irregularities in carbon projects involving traditional communities](#), including the absence of FPIC, lack of transparency in benefit-sharing, and efforts to legitimize contracts through pressure or misinformation. These findings point to a broader pattern: when carbon initiatives fail to recognize the authority, consent, and governance of forest peoples, they not only violate rights, but undermine the legitimacy and social viability of nature-based climate solutions.

²¹ For an expanded discussion on this subject, refer to the debates and references cited in Footnotes 8 and 9.

²² More information about integrity concept and applicability available at <https://www.worldwildlife.org/publications/what-makes-a-high-quality-carbon-credit>.

²³ According to [Carrilho et al. \(2022\)](#), additionality refers to the extent to which emission reductions or removals achieved by a project would not have occurred in the absence of the intervention. It is a core criterion for environmental integrity, as it ensures that credited outcomes surpass those expected under a counterfactual, business-as-usual scenario.

Building Trust, Scaling Impact:
An Integrity Ecosystem for Carbon in the Amazon Region



AMAZON INVESTOR COALITION