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AMAZON PRIVATE SECTOR INVESTMENT LANDSCAPE

Unlocking capital for
a standing-forest
economy

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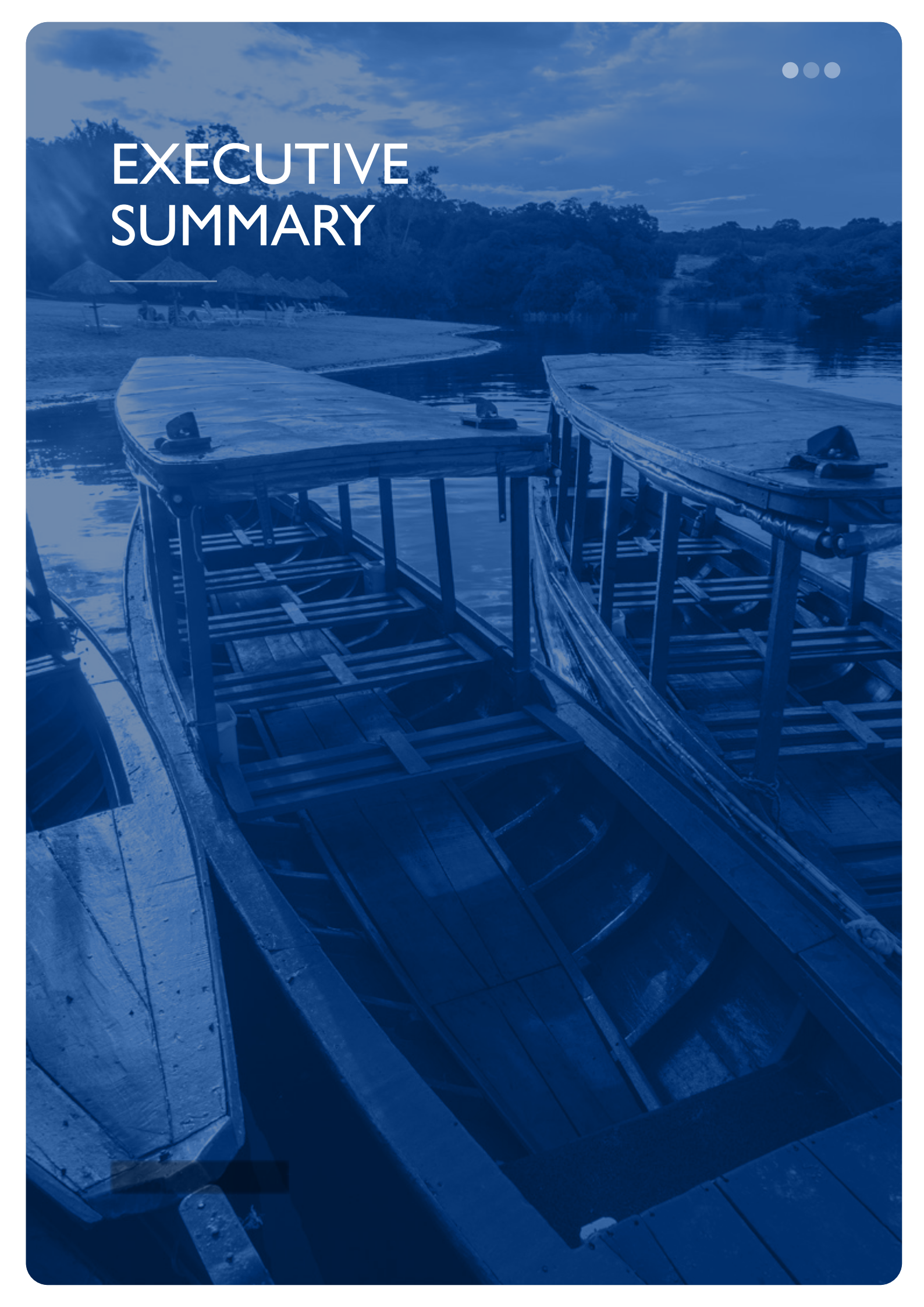
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ACRONYMS

ABF	Amazon Biodiversity Fund	GGC	Green Guarantee Company
AIC	Amazon Investor Coalition	GHG	Greenhouse Gas
BNDES	Banco Nacional de Desenvolvimento Econômico e Social / National Bank for Economic and Social Development	GP	General Partner
BRVCM	Brazil Voluntary Carbon Market Initiative	iCS	Instituto Clima e Sociedade
CFDA	Climate Finance Development Accelerator	IDB	Interamerican Development Bank
CPI	Climate Policy Initiative	IFC	International Finance Corporation
CRA	Certificados de Recebíveis do Agronegócio/Agribusiness Receivables Certificates	IPLC	Indigenous Peoples and Local Communities
U.S. DFC	United States Development Finance Corporation	LP	Limited Partner
DFI	Development Finance Institution	MCF	Multilateral Climate Fund
FIAGRO	Fundo de Investimento nas Cadeias Produtivas Agroindustriais/Investment Fund for Agroindustrial Productive Chains	NbS	Nature-based Solutions
FDIC	Fundos de Investimento em Direitos Creditórios	NGO	Non-Governmental Organization
GCF	Green Climate Fund	NTFP	Non-Timber Forest Product
GDP	Gross Domestic Product	PRONAF	Programa Nacional de Fortalecimento da Agricultura Familiar/National Program for the Strengthening of Family Farming
GEF	Global Environmental Facility	SDG	Sustainable Development Goal
		SME	Small and Medium Enterprises
		USAID	United States Agency for International Development



EXECUTIVE SUMMARY





The Brazilian Amazon is at a pivotal moment in its journey from deforestation-driven development toward a regenerative, standing-forest economy. For decades, unsustainable practices such as large-scale agriculture, cattle ranching, and logging have fueled economic growth at the expense of the forest, leading to widespread deforestation and biodiversity loss. However, growing local and global awareness of the Amazon's critical role in climate regulation and biodiversity conservation has created a unique opportunity to shift the region's economic model. Nature-based Solutions (NbS) and bioeconomy investments are increasingly seen as powerful tools for addressing deforestation by channeling capital into businesses that protect, restore, and sustainably manage natural ecosystems.

In this context, the USAID Climate Finance for Development Accelerator (CFDA) engaged CrossBoundary under the Natural Climate Solutions Activity on behalf of USAID/Brazil to gain a deeper understanding of the current investment landscape in the Brazilian Amazon biome, with the aim of identifying barriers to increased investment into bioeconomy and NbS in the region – and potential opportunities to help unlock additional flows. Through a combination of interviews with investors, businesses, and civil society organizations, as well as extensive secondary research, this assessment aims to offer a comprehensive view of the current state of private investments in NbS and bioeconomy in the Brazilian Amazon.



SECTION I

Section I of this report highlights how nature-based solutions and the bioeconomy, encompassing ecosystem restoration, sustainable primary bioproducts, and secondary bioproducts, can create triple-bottom-line impacts: mitigating greenhouse gas (GHG) emissions, conserving biodiversity, and driving economic growth. Section I.1 articulates the scope of the report, which focuses on nature-positive, market-based approaches that integrate the sustainable use of natural resources with ecosystem preservation. Section I.2 stresses the importance of demonstrating and assessing impact to effectively direct funds to opportunities that contribute to environmental and social outcomes. Measuring impact is critical for donors, philanthropic institutions, and investors to mobilize capital at scale, particularly in a complex ecosystem like the Amazon. By establishing clear metrics for GHG mitigation, biodiversity conservation, and economic growth, stakeholders can ensure that investments

SECTION 2

support high-impact activities that enhance both climate resilience and economic opportunities for Indigenous Peoples and Local Communities (IPLCs).

Section 2 of this report analyzes the current capital landscape for nature-positive investments in the Brazilian Amazon. It highlights both the opportunities and challenges in scaling private investment to support nature-positive business models identified in this report. While a growing number of Amazon-focused investment vehicles have emerged in recent years, there are still significant gaps in capital availability, particularly at smaller deal sizes. The capital map presented in sub-section 2.2 underscore a few key financing gaps, namely:

- ➔ Limited capital at sub-US\$1M ticket sizes: There is a scarcity of equity and debt financing for smaller-scale nature-based businesses, particularly cooperatives and community-led projects.
- ➔ Thin availability of capital for intermediate ticket sizes (US\$5-10M): Many nature-positive businesses struggle to secure flexible debt or equity at this scale, as larger impact funds prefer larger deals to justify transaction costs.
- ➔ Lack of fit-for-purpose guarantees: Nature-based businesses often lack the collateral required to secure loans, limiting their ability to access financing. In contrast to sectors like energy, NbS projects face additional challenges such as land titling issues and the absence of off-take agreements, which further restrict their financing options.

Positively, the number of Amazon-focused funds has substantially increased in recent years, with many asset managers targeting fund sizes between US\$10M and US\$50M and offering smaller ticket sizes below US\$5M. Funds like those managed by Conexsus, AMAZ, and Impact Earth are working to address gaps in the sub-US\$1M segment, but more is needed to fill the overall capital shortfall.

SECTION 3

Section 3 outlines key opportunities for donors and philanthropic organizations to catalyze investment into bioeconomy and NbS businesses in the Brazilian Amazon. By strategically addressing the capital gaps highlighted in Section 2, and addressing key challenges noted by interviewees, donors and investors can play a transformative role in accelerating the shift toward a sustainable, standing-forest economy in the Amazon, benefiting both the environment and local communities. The report identifies three critical areas for donor engagement:

- ➔ **Market-level:** Donors can facilitate market initiatives that enhance regulatory clarity and access to information. Supporting taskforces and convening initiatives can improve collaboration between investors, policymakers, and local stakeholders, reducing perceived risks and increasing investor confidence.
- ➔ **Sector-level:** To help mobilize capital, donors can support the development of fit-for-purpose working capital vehicles and de-risking mechanisms tailored to smaller-scale NbS projects. Additionally, providing concessional capital for early-stage project development will help build a pipeline of investment-ready opportunities.
- ➔ **Firm-level:** Expanding support for incubators, accelerators, and venture studios that help local and early-stage companies grow and access funding is critical to enhancing the pipeline of investable projects.

ANNEXES

Finally, the Annexes provide an overview of types of capital providers and profiles of selected investors; additional capital maps per investee type and business model; relevant regulations and policies for bioresources; and a review of key Brazil-specific financial tools relevant to NbS investing.



FROM DEFORESTATION TO REGENERATION

NATURE-BASED SOLUTIONS & THE BIOECONOMY
IN THE BRAZILIAN AMAZON



Since the 1970's, nearly 20% of the Brazilian Amazon has been cleared.¹ Although the first semester of 2024 saw a significant reduction in the rate of deforestation – 63% lower compared to 2023 – over 9,000 km² of rainforest are still lost every year, equivalent to 1.7 million football fields. Of every ten hectares of forests recently cleared, six become pastures, three are abandoned, and one is converted to agriculture.²

Restoring and protecting the Brazilian Amazon will require substantial investment. According to the World Resources Institute, an estimated US\$20B is needed annually – or 1.8% of Brazil's Gross Domestic Product (GDP) – by 2050 to transition the Amazon to a sustainable, deforestation-free economy.² Despite encouraging signs from both international and local investors, such as increased activity and capital deployed into nature-positive projects and businesses in the region, much more is needed, and challenges in mobilizing capital at scale persist.

NbS and bioeconomy investing – recognized by some as an emerging asset class³ – can be an effective way to help address deforestation pressures by investing in businesses, projects, and initiatives that protect, restore, and sustainably manage natural ecosystems, while advancing sustainable growth. Nature-positive businesses can help improve sustainability of food systems, support the development of sustainable supply chains for bioeconomy products, and help protect, restore, and improve the management of ecosystems.

1.1 Definitions and scope: a market-based framework for nature-positive business models in the Brazilian Amazon

This report examines investment opportunities in the Brazilian Amazon biome through two critical lenses: bioeconomy and NbS. While often overlapping, these concepts have distinct implications for sustainable development and investment strategies in the region.

Bioeconomy refers to the sustainable use of biological resources for economic development. It can be defined as the infrastructure, innovation, products, technology, and data derived from biologically related processes and science that drive economic growth, improve public health, agricultural, and security benefits. It includes various economic activities such as agriculture, forestry, fishing, food, bioenergy, and biotechnology.⁴

1 Cerrado, Brazil's tropical savannah and Amazon's neighboring biome, had half of its area deforested in the same period. WWF, "Living planet" (2018).

2 World Resources Institute, "New Economy for the Brazilian Amazon" (2023).

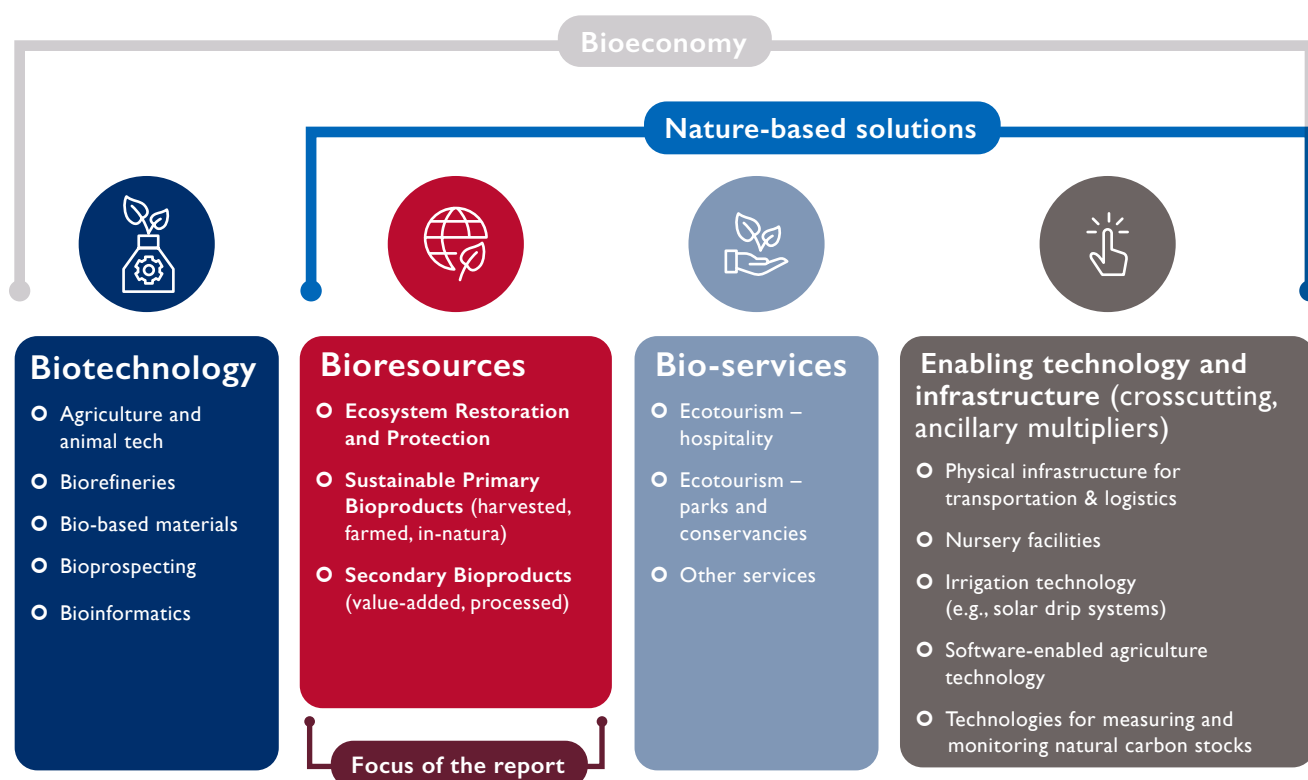
3 In a survey conducted in 2023 by Nature4Climate, over half of respondents categorized NbS as its own asset class in their investments, with a third believing NbS will become a more official asset class in 2024.

4 Office of Science and Technology Policy, "Summary of the 2019 White House Summit on America's Bioeconomy", (2019); OECD, "The Bioeconomy to 2030: Designing a Policy Agenda" (2009).

Nature-based Solutions can be defined as actions that protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems, which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services and resilience, and biodiversity benefits.⁵

Figure 1 depicts a framework for articulating the larger bioeconomy and NbS universe, based on concepts established by the Global Initiative on Bioeconomy during the Brazilian G20 Presidency.⁶ For the purposes of this report, the primary focus will be on investments that integrate the sustainable use of natural resources (bioeconomy) with the preservation of ecosystems (NbS) – with a particular focus on bioresource business models, recognizing its potential to balance biodiversity conservation with economic growth. While we mention NbS, bioeconomy, nature-positive and bioresources across the report interchangeably, it is worth noting the insights in the report are primarily relevant to bioresources business models.

Figure 1. NbS and bioeconomy activities segmentation



Source:

Adapted from NatureFinance and FGV EAESP, “The Global Bioeconomy: Preliminary Stocktake of G20 Strategies and Practices: a contribution to the Brazilian G20 Presidency’s Global Initiative on Bioeconomy” (2024).

⁵ Multilaterally agreed definition adopted during Fifth Session of the United Nations Environment Assembly (UNEA-5).

⁶ NatureFinance and FGV EAESP, “The Global Bioeconomy: Preliminary Stocktake of G20 Strategies and Practices: a contribution to the Brazilian G20 Presidency’s Global Initiative on Bioeconomy” (2024).



Bioresources models encompass the management of natural resources that generate either products or services in a manner that safeguards ecosystems, limits negative environmental effects, and generates economic opportunities. They can be broadly understood as activities that encompass:

- ➔ Ecosystem Restoration and Protection focuses on the protection and recovery of natural ecosystems and includes activities such as reforestation and land management, with revenue streams often generated through carbon credits and ecosystem services.
- ➔ Sustainable Primary Bioproducts: harvesting and farming crops, livestock, and Non-Timber Forest Products (NTFP) in ways that maintain ecosystem integrity while supporting local economies.
- ➔ Secondary Bioproducts refer to value-added processing of these raw materials, such as turning native crops into food products, cosmetics, or industrial goods, which enhance marketability and economic returns.

While policy and governance factors are inherently tied to discussions on NbS and bioeconomy, this report adopts a market-based perspective, focusing on understanding business dynamics, investment opportunities, and associated challenges. Table 1 provides an overview of the three key business models examined, including primary revenue streams and associated examples.

Importantly, some companies and businesses may straddle different models in the table below. For instance, an agroforestry company may primarily generate revenue from the production of forestry products, but also supplement its income through the sale of carbon credits or other ecosystem services. An example is Belterra, a Brazilian company supported by investment from Amazon which is financing the expansion of its agroforestry system in partnership with smallholder farmers through the sale of carbon credits.⁷

⁷ "An update on Amazon's sustainability efforts: Here's what we're doing to aid nature-based solutions and carbon removal" (2023).

Table I. Summary of the three bioresources categories explored in the report

	Ecosystem Restoration and Protection	Sustainable Primary Bioproducts	Secondary Bioproducts
Revenue streams	→ Sale of carbon credits and other ecosystem services such as water and pollination → Sale of biodiversity credits → Tradeable land-use rights	→ Sustainable cultivation and harvesting of crops → Livestock management → Production of food and non-food commodities → Sustainable timber NTFPs	→ Sale of processed, value-added products, including: → Food products → Cosmetic and personal care items → Agricultural inputs (e.g., organic fertilizers) → Industrials products (e.g. sustainable construction materials)
Examples of business models	→ Reforestation, afforestation, and forest restoration projects that capture carbon and enhance biodiversity → Conservation projects focused on protecting high-value forests and endangered ecosystems → Sustainable land management and stewardship models	→ Agroforestry and regenerative agriculture systems → Sustainable livestock farming → Harvesting of non-timber products of Sustainable timber → Non-timber forest products (NTFP)	→ Agri processing and packaging → Food distribution → Production of end-products like cosmetics, furniture and construction material

Ecosystem Restoration and Protection

Activities protecting, restoring, and improving ecosystem management hold particular importance in the Amazon, where natural resources are abundant and critical for the regulation of climate patterns regionally and globally. Brazil has 60% of the world's rainforest and accounts for about 20% of the global potential for nature-based carbon credits. Of the total carbon credit potential in Brazil, 63% pertains to forest conservation, 21% to reforestation, and 14% to agriculture, underscoring the potential for carbon markets to fund conservation efforts.⁸

⁸ CEBDS, "NbS for Business" (2021).



Businesses in this category generate revenues primarily through the sale of carbon credits, although associated nature services such as water and pollination, and biodiversity credits are emerging as market mechanisms that can fund nature restoration and protection.⁹ Investments in the space are usually directed at both project developers and individual projects – and were the most frequently mentioned deal type sought by investors surveyed by the Amazon Investor Coalition (AIC) for investments in the Brazilian Amazon.¹⁰ Examples of private companies and project developers in the space operating in the Brazilian Amazon include Biofilica, Carbonext, Mombak, and Re.Green. There are also non-profits working in the development nature-based carbon projects in the region, such as IDESAM and Rioterra.

Of relevant note in this space is the recent transaction announced between the World Bank and Mombak – a US\$225M Amazon Reforestation-linked bond which links capital market investors to reforestation projects by tying their financial return with positive development and climate outcomes. The first-of-its-kind nine-year principal protected bond, issued by the World Bank, leverages the growing interest in carbon removal credits by linking the return for bond investors to the issuance and monetization such credits.¹¹

⁹ The scalability of these other instruments to date has been limited for several reasons - for example, unclear demand signals and the extremely high cost of biodiversity Measuring, Reporting, and Verification (MRV) relative to the cost per tCO₂ has limited the growth of biodiversity markets and “biocarbon” credits.

¹⁰ AIC, “Amazon Investor Survey” (2021).

¹¹ World Bank, “New Model for Conservation Finance to Accelerate Reforestation Efforts in the Amazon” (2024).

Sample capital seekers

MOMBAK
re.green
idesamCENTRO DE ESTUDOS
RIOTERRA

Sample capital providers

impact+
earthnirova
...vesting in sustainabilityAXA Investment
Managers

Sustainable Primary Bioproducts

Significant value can be unlocked through the sustainable cultivation, harvesting, and production of forest products, which are utilized across various sectors, from direct food consumption to advanced bioproducts. The revenue stream from Sustainable Primary Bioproducts stem from land-based activities such as regenerative agriculture, agroforestry¹² and silvopastoral systems, livestock management, sustainable timber and NTFPs are some examples.

Key crops like soybeans, corn, cassava, bananas, Brazil nuts, açai, cacao, and coffee play a crucial role in food security and regional economies. Investments in climate-resilient agriculture and agroforestry systems contribute to improving soil health, enhancing food security, and restoring ecosystems. These practices, especially when implemented with community involvement, help mitigate deforestation pressures. Successful examples of cooperatives in this space include Coopavam, CAMTA, and Amazombai across various food crops, and Cooperacre with rubber. Additionally, companies like Inocas, Courageous Land, Belterra, and Rio Capim, are scaling agroforestry systems for forest products and sustainable livestock management. As mentioned before, some projects or companies cross-over the delineation of activities. Café Apui, for example, combines coffee agroforestry with carbon-based conservation efforts.

A noteworthy transaction is the FDIC (Fundos de Investimento em Direitos Creditórios) currently being raised by Belterra and being arranged and distributed by JGP, a large Brazilian asset management firm. The fund, which is targeting up to c.US\$70M,¹³ leverages the FIAGRO (Fundo de Investimento nas Cadeias Produtivas Agroindustriais) instrument

¹² Defined by USDA as the “intentional integration of trees and shrubs into crop and animal farming systems to create environmental, economic, and social benefits”.

¹³ Values converted to U.S. Dollars based on the average Brazilian Reals to US Dollars conversion rate for Q1 2024 of US\$ 1 = BRL 5.012. This conversion rate was used throughout this report whenever values were stated in Brazilian Reals.



Sample capital seekers



Sample capital providers



to collateralize the investment and has a blended structure, accommodating philanthropic and commercial capital from Brazilian and foreign institutional investors, and looking to secure a guarantee from a Development Finance Institution (for details on FIAGRO, refer to Annex 4.4).

Secondary Bioproducts

Secondary Bioproducts generate revenue through the sale of processed and value-added products, including food products, cosmetics items, agricultural inputs (e.g. organic fertilizers), and industrial products (e.g. sustainable construction materials). Businesses in this space focus on processing native and non-native species, resulting in the sale of higher value-added products with applications across many industries. Examples include the processing of cocoa into chocolate by companies such as De Mendes and Dengo, açai berries into frozen consumer products by Nossa and Mazo Mana, and cassava into various food products and sauces by Manioca. Additionally, eucalyptus is also processed for pulp & paper by companies like Suzano, while Brazil nuts, *ucuuba* and *andiroba* are used in oils and cosmetics by AmazonOil, 100% Amazonia, Natura and Darvore.

A significant transaction in the secondary bioproducts space is the investment in food producer Manioca by Impact Earth in 2021. This early-stage funding supported Manioca's strategy of sourcing ingredients from local cooperatives and creating products with strong consumer appeal. In 2023, Manioca attracted further investment from Ajinomoto, a global leader in amino acids and food products with an approximate turnover of US\$10B. This investment underscores the scalability and market potential of sustainable, value-added bioproducts that integrate social and environmental responsibility throughout their supply chains.

Sample capital seekers



Sample capital providers



1.2 Nature-positive business models and impact potential

As this report explores strategies to unlock greater capital flows into nature-positive activities in the Brazilian Amazon, measuring and demonstrating impact is critical. For donors, philanthropic institutions, and investors alike, a clear understanding of how different business models contribute to environmental and social outcomes is essential for directing funds effectively. Impact is central to any intervention aiming to mobilize capital at scale, particularly when working in complex ecosystems like the Amazon.

Table 2 is intended as a summary of potential impacts across GHG mitigation, biodiversity conservation, and economic growth for the nature-positive business models examined. While the table provides a simplified view, it is important to recognize that measuring impact is a nuanced process, often requiring sector-specific metrics, long-term tracking, and alignment with local community needs.

Despite their diversity, most investors interviewed and active in the region targeted similar impact variables such as reducing deforestation rates, conserving biodiversity, improving livelihoods of local communities, promoting sustainable land use practices, and mitigating climate change. Consistently, the most targeted *Sustainable Development Goal* (SDG) by Amazon-focused funds were *Climate Action*, followed by *Decent Work and Economic Growth*, and *Life on Land* according to a recent survey by the AIC.¹⁴

Impact-first investors, donors, and philanthropic institutions, when designing interventions that seek to mobilize increased capital mobilization, develop robust impact measurement

¹⁴ AIC, "2022 Finance Amazonia Report" (2022).



frameworks that go beyond simple financial returns. By establishing clear metrics for environmental and social outcomes, donors can help ensure that capital is deployed toward high-impact activities that support both biodiversity and climate resilience, while generating sustainable economic opportunities for Indigenous Peoples and Local Communities (IPLCs).

Table 2. Overview of impact linkages across nature-positive business models

Outcome Area		Ecosystem Restoration and Protection	Sustainable Primary Bioproducts	Secondary Bioproducts
GHG mitigation	Sample metrics	→ Reduced CO₂ emission (avoidance) through reduced deforestation → Increased CO₂ capture through forest growth	→ CO₂ emission avoidance through: → Improved manure management → Reduced land tilling → Reduced use of fertilizers → CO₂ capture via above- and below-ground carbon → Methane emission avoidance through change in cattle feed	→ Potential emission reductions by substituting fossil-derived products – however life-cycle emissions highly dependent on feedstock and related land use → CO₂ emission avoidance through reduced deforestation
	Impact	Highest	High	Medium
Biodiversity conservation & enhancement	Sample metrics	→ Create/protect habitats for a wide range of species → Connect fragmented habitats that facilitate gene flow and species movement	→ Enhanced biodiversity, improved soil health – particularly for agroforestry and regenerative practices	→ May reduce pressure on deforestation and hence biodiversity loss when implementing alternative resource management such as transitioning from whole tree cutting to using selected parts of trees
	Impact	Highest	Medium	High
Economic growth	Sample metrics	→ Creation of sustainable economic activities for IPLCs in conservation-related areas	→ Increased farmer income through: → More efficient use of farmlands → Higher selling price achieved via international certifications	→ Creation of longer-term income sources for IPLCs (high skilled labor force)
	Impact	Medium	Highest	High



2

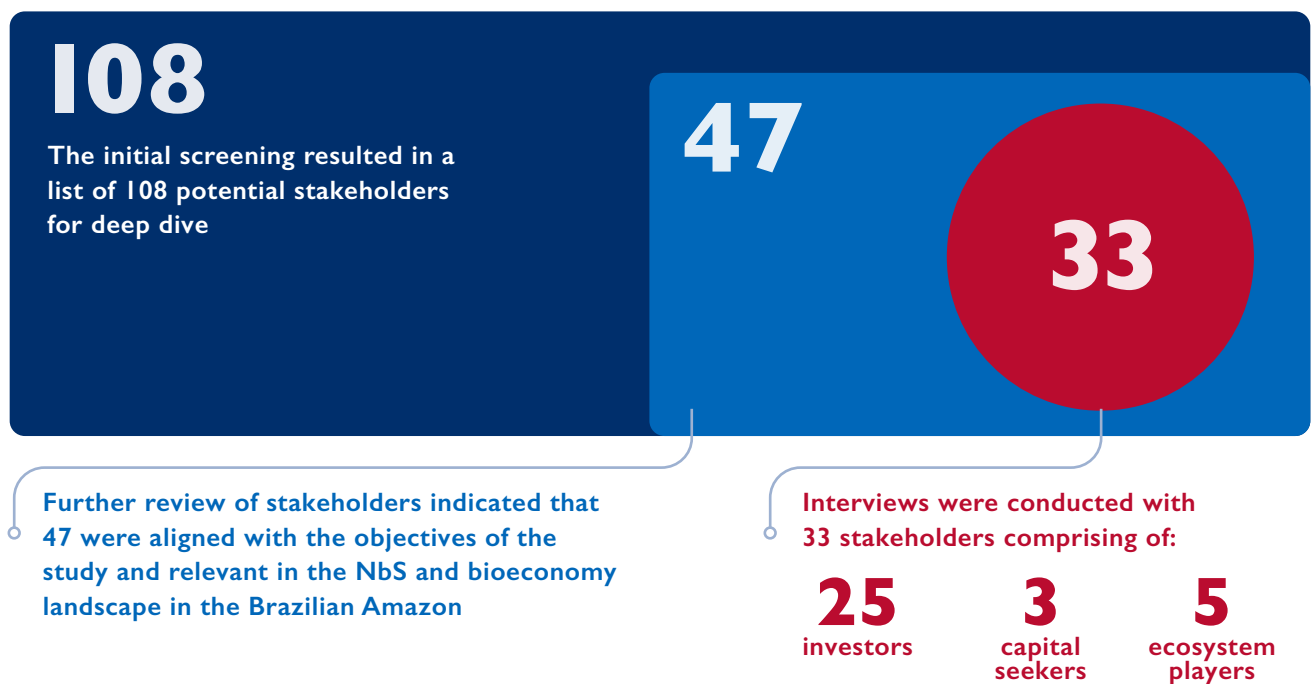
FINDINGS: CAPITAL LANDSCAPE REVIEW

USAID/Brazil engaged USAID CFDA under the Natural Climate Solutions Activity to gain a better understanding of the current investment landscape in the Brazilian Amazon biome, with the goal of identifying barriers to increasing nature-positive investment in the region and potential opportunities to help unlock it. We assessed investor interest in the region by engaging with investors, local companies, and project developers, as well as identifying bottlenecks and funding gaps in the Brazilian Amazon's capital supply.

2.1 Methodology

The report was written based on a combination of interviews and secondary research. The review of over 40 reports and articles informed the analysis and provided a comprehensive overview of the Brazilian Amazon context. We then conducted interviews with relevant, high-priority investors, selected capital seekers, and ecosystem players to gather detailed insights about investors' strategies, investment characteristics, priority areas, and key challenges faced by entities doing business in the Amazon. The final pool of 33 interviewees was focused on capital providers but also included capital seekers and ecosystem players, reflecting our holistic approach. The combination of both sources of data allowed us to develop a robust view of the capital landscape and gather insights into investors' theses and strategies.

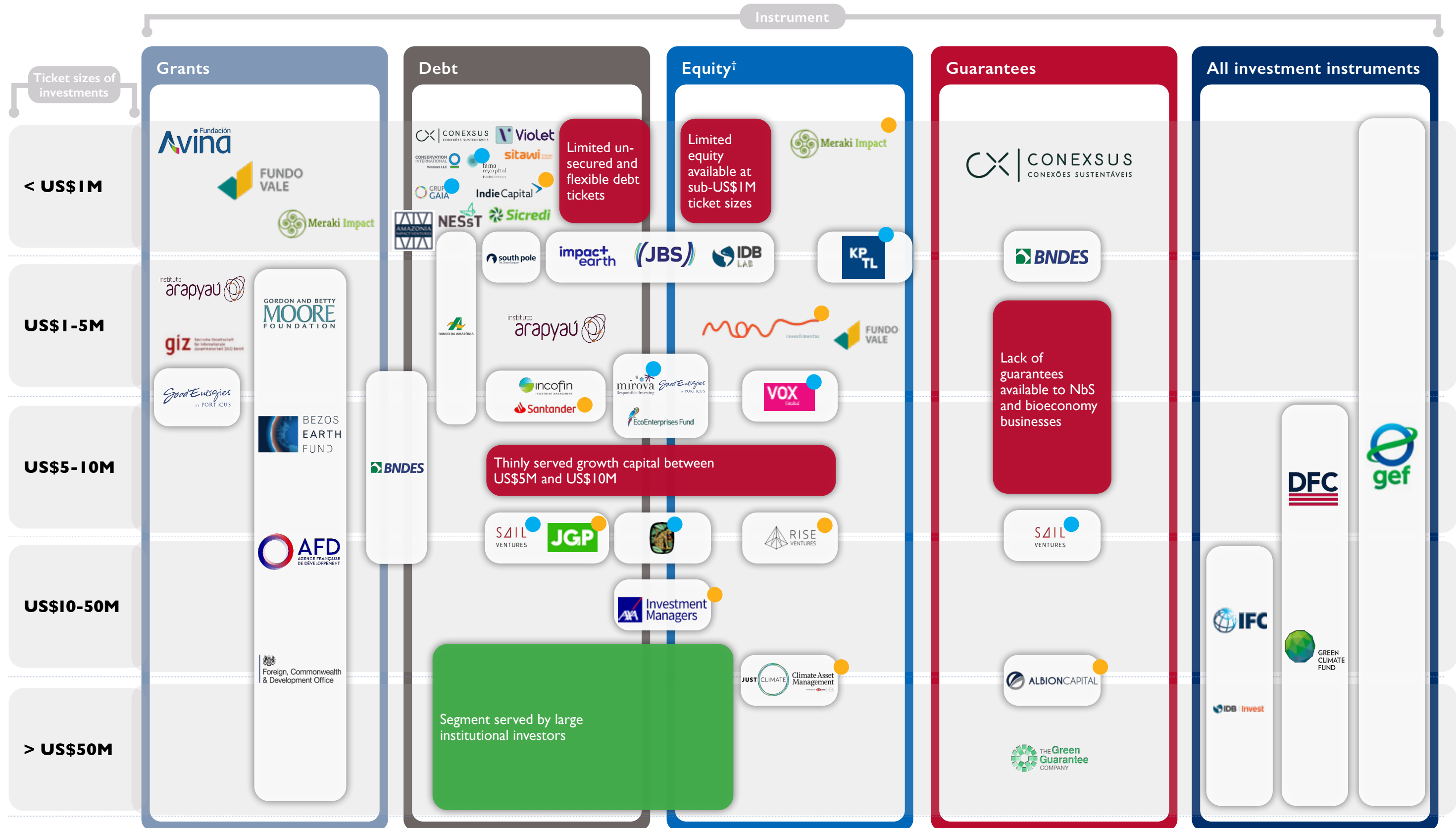
Figure 2. Sample of stakeholders selected for deep dives and interviews



2.2 Capital map for nature-positive investments in the Brazilian Amazon

Mapping the flow of capital into nature-positive investments in the Brazilian Amazon reveals key trends and gaps that can inform future strategies. The capital map presented on Figure 3 offers an overview of the types of capital available, typical deal sizes, and preferences of investors engaged in the region.

Figure 3. Capital map by asset class and ticket size



Two additional maps segmenting investors by business model and return expectation preferences are included in Annex 4.2.



This mapping above underscores a few critical challenges, such as the scarcity of capital at sub-US\$1M ticket sizes, and the limited availability of debt and equity instruments at intermediate ticket sizes (US\$5-10M). It also highlights the scarcity in the provision of guarantee instruments. Lastly, our mapping also shows a growing number of Amazon-focused funds.

Limited capital available at sub-US\$1M ticket sizes

The data shows a lack of equity and debt capital available for investments under US\$1M. In addition, concessional capital is becoming less accessible, as donors are shifting away from financing cooperatives to focusing on collateralized instruments.

For equity investments, this shortage reflects not only the general risks associated with investing in small and medium-sized enterprises and community-led businesses, but also specific challenges faced by nature-centric ventures in the Amazon, as further detailed in Section 2.3. Acquiring a stake in cooperatives is usually difficult given legal structures.



Thinly served equity and flexible debt tickets between US\$5M and US\$10M

While the mapping shows a larger presence of investors serving the US\$1-5M deal sizes, those are more limited in the US\$5-10M range. In the case of equity, the emerging group of NbS-dedicated impact funds and foundations typically invest less than US\$5M per deal, and more than US\$1M due to operating capacity, while US\$10M is the minimum for larger impact funds and international funds who seek deals at scale to justify their transaction and opportunity costs. In the case of debt, while greater supply of capital exists (if compared to equity), flexible terms – such as longer grace periods, sculpted principal amortization schedules, and revenue-based repayments – often needed to develop land- and resource-intensive projects, are not widely offered. While an emerging group of banks and asset managers are exploring transactions collateralized with receivables in this ticket size range, these remain sparse.

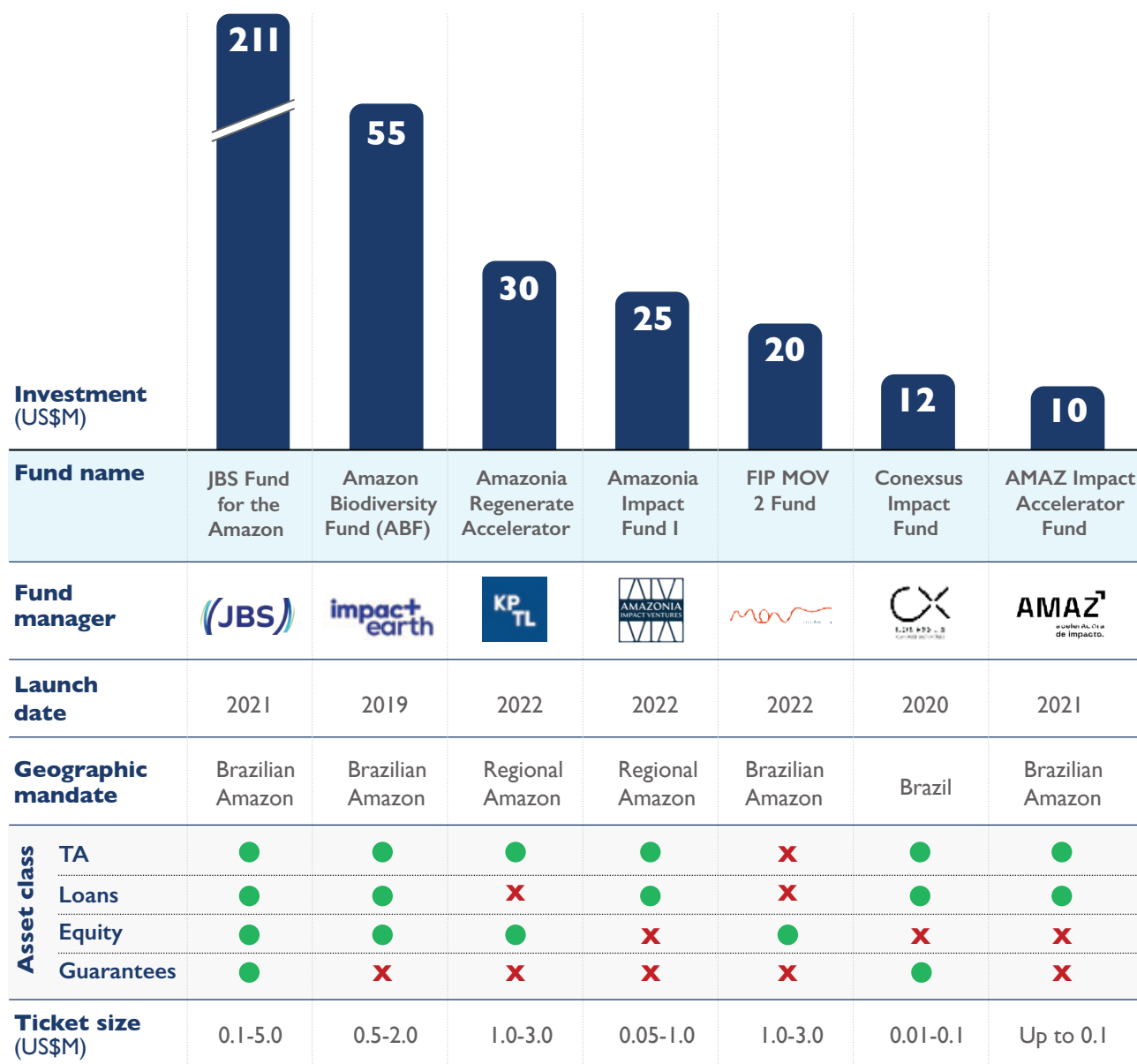
Lack of fit-for-purpose guarantees serving smaller scale, nature-based businesses and projects

The mapping and interviews also highlighted the lack of guarantees available to nature-positive business models. Large scale forestry projects, for example, tend to have intensive capital expenditure requirements in the initial planting phases, but have limited collateral to offer, which limits their ability to access debt. Projects often struggle to enter into off-take agreements, and land titling issues may also limit the use of land as collateral. This is in contrast with energy projects, for example, which typically leverage both to access project financing. In this context, nascent nature-centric projects require alternative guarantee instruments to access the capital needed to grow.

While there are some offerings for sub-US\$1M ticket sizes from Conexsus or JBS Fund for the Amazon, the supply is limited for guarantees above US\$2M, which is the maximum ticket size of BNDES' Guarantee Fund for Investment (FGI) program. SAIL Ventures (through the &Green Fund) and the DFC are the only guarantee providers identified through our mapping that could cater to intermediate ticket sizes.

There is notably a growing number of Amazon-focused funds, capitalizing on increased investor interest in the region

While financing gaps exist, as noted above, the number of Amazon-focused funds has substantially increased, with many local and international asset managers launching Amazon-focused funds in the last five years. Most of the investment vehicles raised by asset managers targeted fund sizes between US\$10-50M, and offering ticket sizes below US\$5M. As noted above, asset managers such as Conexsus, AMAZ, and Impact Earth are trying to fill the gap in the sub-US\$1M segment.

Figure 4. Snapshot of selected Amazon-specific investment vehicles per target fund size

2.3 Investor-informed barriers to investing in bioresources in the Brazilian Amazon Biome

Mobilizing finance for nature-positive activities in the Amazon presents a unique set of challenges and opportunities. Understanding investment dynamics is essential for developing effective strategies to deploy capital more effectively. This section examines investors' perspectives on investing in companies operating in the Brazilian Amazon. While our assessment has primarily focused on gathering investor perspectives, when applicable, we incorporate perspectives from capital seekers and other ecosystem actors to offer a comprehensive understanding of the ecosystem's barriers.

Table 3 summarizes key barriers identified across nature-positive models addressed by the report, and the following subsections detail how they affect those differently.

Table 3. Key challenges that hinder investments in the bioresources space in the Brazilian Amazon have varying effects across models¹⁵

Barriers		Bioresources Categories		
		Ecosystem Restoration and Protection	Primary Sustainable Bioproducts	Secondary Bioproducts
Market	Infrastructure deficiencies make investments intrinsically riskier	▼	▼▼▼	▼▼
	Land ownership complexities in the biome create significant risks for investors	▼▼▼	▼▼▼	▼▼
	Safety and reputational risks were raised as concern	▼▼▼		▼
Sector / Financing	There is a mismatch observed between investors' ticket size preferences and the capital needs of projects	▼▼	▼▼▼	▼▼
	SMEs and cooperatives struggle to secure working capital financing with repayment windows aligned to production cycles	N/A	▼▼	N/A
	Amazon-focused asset managers have struggled to raise risk-aligned, patient capital	▼▼▼	▼▼	N/A
	Existing de-risking mechanisms are not designed to support nature-centric projects	▼▼▼	▼▼▼	▼▼
Firm	Lack of investment readiness hinders capital absorption, especially for smaller players	▼▼	▼▼▼	▼▼



Highest negative effect



High negative effect



Existing but limited negative effect

¹⁵ A more detailed version of this table, outlining key impacts across each category, is provided in Annex 4.3



Market-level barriers

Severe infrastructure deficiencies make investments intrinsically riskier in the region

The Amazon region faces significant infrastructure challenges, including lack of transportation, communication, and energy. Lack of physical infrastructure undermines the development of reliable production and supply chains and leads businesses to incur higher costs, as access to markets and established distribution channels is limited for many smaller businesses in the Amazon. Without robust networks to distribute their products and services, these businesses struggle to expand their customer base and achieve scale, which in turn limits their ability to attract investment.

Investors, in particular Development Finance Institutions (DFIs) recognized these key deficiencies as barriers to investment in the region, and highlighted the need to alleviate gaps in order to support operations of nature-positive businesses and projects – with the added benefit of more broadly benefiting the local economy and hard to reach communities across the region.

These deficiencies disproportionately affect businesses involved in sustainable primary product production. Issues like electricity outages and logistical bottlenecks directly increase the costs associated with producing goods. While secondary product businesses are also impacted, their higher value-add and margins often make these challenges less critical. In contrast, projects focused on ecosystem restoration and protection are less sensitive to these infrastructure issues, as the nature of their activities typically involves lower reliance on transportation and energy-intensive processes.

Land ownership complexities were consistently identified by investors as a main source of risk for investors looking to deploy capital in the region

Almost all investors interviewed, from asset managers to Multilateral Climate Funds (MCFs) and ecosystem players, mentioned land ownership complexities in the Amazon as a major risk to investing. In the Brazilian Legal Amazon, 44% of the land is under protection, with an even split between conservation areas and approved concessions to IPLCs.¹⁶ Even if the area is privately owned, conducting due diligence and assessing its legality is often complex and costly. One investor mentioned that the state of Pará had “two stories”, referring to the fact that there are more registered entries of land in the state than its total mapped surface area.¹⁷

¹⁶ Imazon (2010).

¹⁷ FAPESP, “As terras imaginárias do Pará” (2019).

These challenges are particularly detrimental to business models centered around ecosystem restoration and protection and sustainable primary production. In the case of ecosystem restoration projects, uncertainties around land ownership raise concerns about the permanence and legitimacy of developed projects, potentially undermining investor confidence. Furthermore, the high costs associated with land ownership verification limit the ability to use land as collateral for financing, a critical barrier for businesses looking to access capital for growth or project development. For sustainable primary product ventures, the complexities of land tenure further increase operational risks, as the legal uncertainty surrounding land use rights can deter investors from committing capital.

“The Amazon has very complex land ownership dynamics; it’s as if [the state of] Pará had two stories”

– Brazilian asset manager

Safety and reputational risks were also listed as concerns for investors

Investors cited the lack of police monitoring in certain areas of the Amazon as a concern due to the exposure of teams on the ground to criminal activity. Additionally, recent scandals of fraudulent landscape restoration and protection projects monetizing via voluntary carbon markets highlighted the challenges around verification and compliance mechanisms in the region.¹⁸ In this context, investors become more reticent to deploy capital in the Brazilian Amazon, fearing their investments might generate unintended backlash with accusations of “greenwashing” or unethical practices.

This challenge is particularly acute for businesses involved in ecosystem restoration and protection. Beyond managing the physical safety of teams working on-site, these businesses must navigate reputational risks tied to the credibility of the voluntary carbon market. Ensuring the integrity and verifiability of carbon and biodiversity credits is essential to maintaining investor trust and avoiding reputational damage. Failure to meet robust compliance and verification standards can not only deter further investment but also undermine broader efforts to promote sustainability and conservation in the region.

¹⁸ Washington Post, “How ‘carbon cowboys’ are cashing in on protected Amazon forest” (2024).



Sector-level barriers

There is a mismatch between investor's ticket size preferences and the capital needs of most bioresources opportunities in the Amazon

In the Amazon, many projects and businesses, particularly those focused on the sustainable production and harvest of forest products, are small-scale and community-based. These operations often lack the scale necessary to attract larger financial institutions and asset managers. Due to their smaller size and fragmented structure, such businesses struggle to achieve economies of scale that would enhance their competitiveness and appeal to commercial investors. This misalignment between the capital needs of these projects and the ticket size preferences of most investors limits the flow of capital into the region. Investors seeking commercial returns typically prioritize larger, more established projects that can generate higher financial yields.

SMEs and cooperatives struggle to secure working capital financing with repayment windows that are aligned to their production cycles

Businesses reported that they encounter difficulties in obtaining funds that are consistent with their working capital requirements such as the absence of grace periods on loan repayments. Many lending facilities in the market require a repayment period that is incompatible with harvesting cycles. The scarcity of working capital financing substantially impedes the development and scope of cooperatives, preventing them from acquiring raw materials and planning production in advance.

Interviews with a range of stakeholders, including capital providers, Non-Governmental Organizations (NGOs), and capital seekers consistently emphasized this limitation. For businesses focused on sustainable natural products, this misalignment is particularly acute, as their operations often require extended repayment windows to accommodate the alternating off-season and harvest periods. Without more flexible financing options that include appropriate grace periods, these businesses face significant barriers to scaling and maintaining consistent operations.

Amazon-focused asset managers struggle to raise risk-aligned, patient capital

Long return periods and, more generally, the idiosyncratic risk of nature-positive investments has limited the number and size of funds able to raise capital. Longer timelines are often required for bioresources opportunities (particularly those focused on ecosystem restoration and protection) to fully realize returns, which can make capital

raising at the fund level challenging. Funds of funds, especially those investing in private debt or equity, typically invest in closed-end funds with lifespans of 10 to 12 years, with investment periods typically around five to six years. Furthermore, the inherent challenges of operating in the Amazon biome and the relatively new nature of bioresources business models exacerbate risk perceptions and discourage investment. This is especially true for funds focused on pure ecosystem restoration projects, which typically have the longest payback horizons. However, funds targeting land-use transition for primary forest products can also be affected, as production yields are often expected to be low or decrease in the short term, adding to the challenge and need of attracting patient capital.

VOX's FIAGRO unsuccessful fundraising round in 2023,¹⁹ focused on recovering degraded and unused land in the Amazon and Cerrado biomes, is an illustration of the challenging investing environment for funds working on bioresources. The firm did not succeed in raising the minimum fund size of US\$10M for the 10-year fund. VOX noted the lack of confidence from investors, high perceived risks from the project, and low liquidity associated as the main reasons for its challenges.^{20,21} An international asset manager also tried raising a regional Amazon debt fund in 2022 but halted the initiative in 2024 despite securing initial concessional funding from a MCF.

While the provision of concessional capital at the fund level, such as the Amazon Biodiversity Fund (ABF) managed by Impact Earth and supported by USAID, can help facilitate downstream investments, access to concessional capital is scarce. At least eight seasoned Brazilian fund managers interviewed have struggled to attract concessional capital for impact-first funds in the past year, underscoring the need for more tailored financial structures to de-risk investments in the Amazon.

Existing de-risking mechanisms are not designed to support nature-centric projects

Investors have consistently identified guarantees as key instruments that could help de-risk projects and portfolios, potentially unlocking private capital for nature-positive ventures in the Amazon. However, the criteria currently used by investors to assess credit risk are often misaligned with the realities of bioresources. Unlike more established sectors like renewable energy, nature-centric models, particularly those in early stages, typically lack the collateral, track record, and standardized data necessary to qualify for traditional project finance and risk management approaches. Even development-focused capital providers require substantial collateral to underwrite loans, restricting access to financing for even relatively more sophisticated businesses.

¹⁹ Investment Funds in Agro-industrial Productive Chains. This instrument is explained in Annex 4.4 of this report, along with other relevant instruments and policies for Nbs projects in Brazil.

²⁰ AIC, "2022 Finance Amazonia Report" (2022).

²¹ Capital Reset, "Porque o FIAGRO da VOX não saiu e as lições que ficaram" (2014).



Although land is often considered an asset in nature-based projects, its contribution to overall capital expenditure is usually minimal, making it an insufficient form of collateral for large-scale financing. This issue is particularly pronounced in the restoration and protection of ecosystems, and the production of sustainable forest products, where revenues depend heavily on land-based activities.

“In Brazil, we live a balance-sheet conundrum: there simply is not enough collateral to back up the investment needed for nature-positive action”

– *Guarantee provider*

The existing de-risking mechanisms are generally not designed to support the types of business models covered in this report. For instance, one of the guarantee providers interviewed only supports transactions with ticket sizes of US\$50M or more—significantly higher than the average ticket size of bioresources projects in the Brazilian Amazon biome. Additionally, it also favors borrowers with long-term off-take agreements, limiting the number of viable projects. Other providers interviewed also tend to focus on more established and proven climate markets, such as the renewable energy sector.

A few examples of guarantee facilities tailored to bioresources and smaller businesses were identified. The Conexsus US\$12M Impact Fund, which assists rural and forestry-based enterprises in meeting guarantee requirements for PRONAF credit lines, supports small enterprises. BNDES's Guarantee Fund for Investments (Fundo Garantidor para Investimentos) also offers guarantees of up to US\$2M.

“There are lots of people knocking on the same doors. We [investors] must ensure there is collaboration and coordination”

– *Brazilian asset manager*



Firm-level barriers

Lack of ‘investment ready’ businesses and projects hinder capital absorption in the region

During interviews, a variety of investors expressed difficulty in identifying a deep pipeline of projects that could absorb external investment. In a survey by the AIC in 2022,²² investment readiness was also the most-cited obstacle to investing in the Amazon by asset managers, which was corroborated by investors (with larger ticket size requirements). DFIs observed that businesses in the region were not fully utilizing the available concessional pools of capital. Two institutional capital providers stated that a lack of investment-ready bioresources businesses able to absorb capital soon would ultimately lead to capital providers competing for the same limited pool of profitable deals and ending up investing in unprofitable firms. This “race to the bottom” could ultimately be detrimental to capital allocation in the region due to a lack of opportunities.

22 AIC, “2022 Finance Amazonia Report” (2022).



Despite receiving some support from funders such as Sitawi or AMAZ, smaller organizations, such as start-ups and cooperatives, continue to encounter difficulties in developing sophisticated financial models and pitch decks that meet the high expectations of investors and allow them to compete against other projects looking to raise funds in the market. In these situations, the challenge lies not so much in the fundamentals of the business model, but rather in the presentation and packaging of the investment opportunity to an investor—significantly limiting a company's ability to raise capital.

“Companies are not ready.
The problem is not the lack
of capital, it is where to put it”

— *Brazilian asset manager*

The absence of the necessary capacity and/or expertise to fulfill the application and reporting requirements of certain capital providers, particularly those that provide grants and concessional funds, such as DFIs and MCFs, as well as public funds, is an additional obstacle to capital absorption. For instance, agricultural enterprises in Brazil reported difficulties in meeting the administrative and documentation requirements for government subsidized credit programs, including PRONAF. Similarly, DFIs' and MCFs' due diligence processes often tend to require longer timelines and time commitments from applicants, limiting the pool of businesses that can meet application and reporting requirements.

“Grantors must rethink their requirements,
[because] they make it very difficult for
small projects to access finance”

— *International grantor*

Limited availability of human capital also contributes to the lack of investment-readiness. Companies need talent to expand operations and absorb larger sums of capital. An agroforestry company identified limited farm workers with technical knowledge as a key bottleneck. At the management level, qualified technical and people management skills are required and often lacking.

3

OPPORTUNITIES FOR DONOR ENGAGEMENT TO CATALYZE INVESTMENTS FOR NATURE POSITIVE ACTION

The barriers identified throughout this report hinder the development of a thriving standing-forest ecosystem in the Brazilian Amazon biome. Below we highlight opportunities raised by interviewees that could be explored by the donor community in its efforts to catalyze investments into nature-positive action in the biome. Potential opportunities are suggested across market-level actions that can help improve the enabling environment for nature-based investments; sector-level activities that help enhance the capital provision across the industry; and firm-level support to local businesses to improve investment-readiness and help those in accessing national and international pools of capital.



Market-level: Facilitate market initiatives and taskforces to enhance regulatory clarity and access to Information

Structural challenges, including the complexity of regulatory frameworks and land ownership issues, present significant barriers to investment in nature-positive businesses and projects in the Brazilian Amazon. To address these challenges, donors can play a critical role by supporting initiatives that foster collaboration between policymakers, capital providers (such as donors, philanthropic institutions, and DFIs), investors, and local stakeholders.

Interviews with ecosystem players highlighted that improving the transparency of regulations could drive further investment. An ecosystem player emphasized the need for robust carbon credit certification standards, suggesting the development of locally relevant auditing protocols and a comprehensive project repository that addresses environmental, social, legal, and tax aspects. Insecure land titling, combined with nascent regulations for carbon markets, further exacerbates investor concerns, particularly for forest restoration and protection projects.

Donor support for convening initiatives, such as iCS's Nature Lab, can help bridge public and private sectors by improving education around local regulations and increasing investor confidence. These initiatives can inform policy development by ensuring a cohesive and coordinated approach, integrating private sector insights into the creation of regulatory frameworks that encourage investment.

On the investment side, donors can collaborate with existing networks, hubs, and taskforces to strengthen their role in driving capital flows into the region. By supporting these networks, donors can help align market participants, improve information sharing, and facilitate the design of investment-friendly policies that will accelerate capital deployment in the Brazilian Amazon.

Sector-level: Continue catalytic support for capital mobilization for nature-positive action in the region

Donors play a critical role in enabling innovative financing structures that align risk and return expectations across various investor types. The USAID-supported ABF has been repeatedly cited by investors as a transformative vehicle, mobilizing capital for sustainable businesses in the Amazon.

Building on ABF's success, several opportunities exist for donors to further catalyze capital in the region by addressing key financing gaps. Many of the barriers identified in this report—such as challenges in accessing working capital, the lack of tailored de-risking

instruments, and limited early-stage capital—can be mitigated through innovative, bespoke financing solutions. From our interviews, three actionable opportunities for catalytic finance emerged, each detailed below.

Support the development of fit-for-purpose working capital vehicles

A major challenge for businesses, particularly those in the sustainable natural products and secondary bioproducts sectors, is accessing working capital financing that meets their unique needs. Many existing financing options impose high collateral requirements, short grace periods, and rigid repayment terms, which do not align with the seasonal nature of these businesses. Multiple stakeholders emphasized the need for more tailored financing solutions.

Donors can support the development of dedicated working capital vehicles or expand existing portfolios within existing financial institutions to better serve nature-based enterprises. Instruments like FIAGROs and CRAs in Brazil could be leveraged to allow for receivables as collateral, addressing challenges associated with land-based collateral. Additionally, vehicles that offer longer grace periods would enable businesses in the sustainable food systems industry to operate during the off-season and repay once revenue is generated. Collaborating with large corporate off-takers could further strengthen supply chains and de-risk investments to attract a wider pool of investors.

The support could come either in the form of a fit-for-purpose vehicle entirely dedicated to serving this segment or supporting the expansion of working capital portfolios of existing FIs into bioresource businesses. Brazil's own investment tools, such as FIAGROs and CRAs can be leveraged as a way of addressing the challenge that financiers have in taking land as collateral as they accommodate for receivables being offered as a security. Vehicles offering longer grace periods in working capital financing to businesses operating in the sustainable food systems industry would also allow producers to operate during the off-season and repay once revenue is generated. Further, involving larger off-takers in such a facility could improve the corporate off-taker supply chain robustness while de-risking the investment proposition to attract a wider range of investors.

Develop de-risking mechanisms for smaller transactions

A lack of guarantees and insurance products is a significant barrier to scaling investments across all segments, as cited by providers of concessional capital. Guarantee mechanisms tailored to transactions between US\$1M and US\$10M – the range with the largest offering gap – could unlock debt and equity capital for projects in the region.



One potential solution is to create a de-risking mechanism specifically tailored for projects working on ecosystem restoration and protection, which often lack early-stage capital for project development and initial planting expenses. This could involve providing credit guarantees to lenders, as well as offering insurance products that protect off-takers from risks related to carbon credit delivery. While some of these exist and are starting to be developed elsewhere, they are currently sparse. Similar de-risking mechanisms could be extended to SMEs operating in the Sustainable Primary Products, which face comparable challenges. Donors and philanthropic institutions should consider collaborating with DFIs to establish portfolio guarantees for local banks and cooperatives or explore partnerships with regional insurers, or carbon-focused insurances to develop innovative insurance products.

Supporting the provision of concessional capital for early-stage project development

Early-stage project development in conservation, restoration, agroforestry, and integrated livestock activities remains a significant bottleneck, especially for smaller projects. Donors can help bridge this gap by investing in dedicated vehicles or developing new ones aimed at channeling capital to smaller, community-based projects.

Catalytic capital is typically offered through three key strategies: by allocating the capital to cover fund structuring and operational costs, eliminating the need for private investors to pay management fees and allowing more private capital to flow directly to businesses

and projects; 2) by directly making commitments as potential first-loss tranches, typically structured as junior equity within the fund and absorbing potential initial losses; and finally 3) by funding technical assistance sidecars.

The first two strategies can attract private investors by enhancing returns, though in different ways: Option 1 increases investable capital by eliminating management fees, while Option 2 protects investor principal through a First-Loss Tranche (FLT). Option 1 is particularly effective for supporting fund managers with limited expertise or financial capacity to launch a fund. Option 2 is better suited when the main challenge is fundraising, especially in reaching first close — the minimum amount of Assets under Management (AUM) required by anchor investors to make the fund operationally viable. In this scenario, the donor's investment in the FLT contributes directly to the first close, helping unlock significantly larger capital flows. Additionally, unlike non-repayable grants, this approach allows the donor to potentially recoup and reinvest the capital.

In addition to contributing to concessional tranches of funds, donors could fund technical-assistance sidecars to absorb project preparation costs — such as feasibility studies and technical assessments — offering grants that are refundable only if projects reach profitability. Further, subsidizing design-stage costs for new blended finance funds could accelerate their development and mobilize greater capital. This approach would not only improve fund sustainability but also allow donors to gather insights and disseminate best practices. Potential partners in this space are asset managers with established teams and experience in early-stage project development.

Firm-level: Support local and early-stage companies and projects to help grow the pipeline of investable opportunities and improve access to funding sources

Many investors cited the lack of investable opportunities as the major obstacle to increasing capital deployments in the Amazon. To address this, donors can play a crucial role by funding local incubators, accelerators, venture studios, and advisory services that offer technical assistance and transaction support to nascent, early-stage, and locally driven nature-positive business models. By strengthening these organizations, donors not only catalyze the growth of sustainable businesses in the region but also gain insights into the factors that drive success or create challenges for building resilient nature-positive business models. This knowledge can then be shared with a broader network of stakeholders, including investors, civil society organizations, and government agencies, to help tackle the broader market and sector-level constraints highlighted in this report.

Donor-funded initiatives can help companies navigate the landscape of available capital providers, both local and international, and support them in selecting the most suitable financing options. Additionally, these programs can assist businesses in preparing for fundraising, structuring transactions, and negotiating favorable terms with investors.



4

ANNEXES

4.1 Investor categories

Many types of investors are active in the Amazon biome's bioresources market. The types of projects and businesses they support may vary depending on their thesis, return expectations, and ticket sizes, among other criteria. The following section provides an overview of the seven types of investors identified in this study.

Asset managers

Most asset managers target commercial returns and look to deploy large ticket sizes

Asset managers include investment managers typically raising capital under dedicated vehicles in a Limited Partner/General Partner (LP/GP) structure, although alternative structures exist. They are mostly firms targeting commercial returns with private investors as their LPs. This group also includes impact investors targeting concessional returns within blended finance structures and a mix of public and private impact investors in their pool of LPs, such as the ABF, which has the US DFC and the L'Oreal Fund for Nature Regeneration as investors. Ticket sizes typically range between US\$1M and US\$10M for local players and can go as high as US\$100M for international players.

Lending Institutions

Lending institutions are a key source of financing for projects in the Brazilian Amazon and differ significantly in the levels of expected returns

Three main sources of debt financing are available for bioresource business in the Amazon. The first segment is composed of large Financial Institutions (FIs) including commercial banks, and (partially) government-owned banks. Commercial FIs have large balance sheets and provide loans at commercial rates for capital seekers. Traditional FIs aim their large ticket sizes at established, revenue-generating businesses.



The second segment is comprised of smaller, impact oriented FIs such as Conexsus, Sitawi and NESsT. These companies target specifically community-focused businesses, supplying capital to smaller projects that would not otherwise have access to financing. Most loans are issued at concessional rates and complement their support to SMEs and community-focused companies with technical assistance.

Government-owned banks such as Caixa Econômica Federal, Banco do Nordeste, Banco do Brasil and Banco da Amazônia also supplies loans to bioresources businesses primarily through the Programa Nacional de Fortalecimento da Agricultura Familiar (National Program for Strengthening Family Farming, PRONAF²³), which can be considered a third segment. The program provides subsidized credit to smallholder's farmers at attractive financing conditions, with annual interest rates at around 4%.

Family Offices

Family offices have autonomy to drive their agenda and can provide concessional capital to SMEs and community-focused enterprises

This investor category has significant autonomy to drive their own agenda and allocate capital, which allows for a greater focus on investment impact rather than solely financial returns. Their investments range from equity into SMEs and community-focused companies to deployment on impact funds. They tend to collaborate with NGOs, government institutions, and other market stakeholders to maximize their impact. Additionally, by supporting nascent SMEs and sustainable enterprises, these family offices help build a pipeline of projects that can attract future investments from commercial investors, which is crucial for the long-term economic and environmental sustainability of the Amazon.

Foundations

Catalytic capital provided by foundations and corporates is crucial to unlock commercial sources of financing and develop projects in the Brazilian Amazon

23 More details on the program included in the Annex of the report.

Foundations operating in the Brazilian bioresources financing space typically deploy their own balance-sheet or endowments resources to companies or projects that align with their mission. Many prominent corporates set up their dedicated foundations or vehicles to mitigate their environmental impact, such as mining company Vale (with Fundo Vale) and meat processing company JBS (with JBS Fund for the Amazon). International foundations such as Fundación Avina and Good Energies also invest in the Brazilian Amazon. Financing can be provided via grants, in-kind donations or through catalytic capital for impact investments, which is fundamental for unlocking other sources of financing.

Development Finance Institutions

International and local Development Banks have recently resumed capital deployments in bioresource businesses in the Amazon, led by IDB and BNDES

Several Development Finance Institutions (DFIs) are present in the Brazilian bioeconomy landscape and play an increasingly important role in financing local businesses in the Amazon. Banco Nacional de Desenvolvimento (BNDES), Brazil's national DFI, has been historically the most active development bank in the Brazilian Amazon, amongst other activities responsible for managing the Amazon Fund, a government-created initiative supporting actions for the prevention, monitoring, and combat of deforestation, and promotion of conservation and sustainable use of the Amazon rainforest. International DFIs such as the Inter-American Development Bank (IDB) with its Amazonia Forever program and the U.S. International Development Finance Corporation (DFC) have also ramped up their investments in the region.

Businesses can receive funding from development banks directly or indirectly through financial intermediaries (e.g., DFC's US\$45M loan to Banco Sofisa to expand their portfolio in the Brazilian Amazon²⁴). While BNDES has sufficient capillarity in the region and the capabilities and market expertise to deploy capital directly into SMEs, international development banks usually leverage on-lending²⁵ programs through local FIs to reach smaller businesses. Despite the relevant role DFIs play, their typical ticket sizes might be too large for some bioresource businesses, especially the ones on seed and growth stages.

24 U.S. DFC, "Public Information Summary for Banco Sofisa S.A" (2022) – public announcement made in November 2022.

25 On-lending is a financial practice in which a lender borrows funds from a larger financial entity, such as a government, international organization, or bank, and then re-lends those funds to end borrowers.



Multilateral Climate Funds

Multilateral Climate Funds deploy capital through locally accredited entities, and their funding has a highly catalytical effect

In Brazil, there are two active Multilateral Climate Funds (MCFs): the Global Environment Facility (GEF) and Green Climate Fund (GCF). Both funds provide financing instruments typically in the range of US\$10-50M via accredited entities that redeploy funding locally. Akin to the large international DFIs, they are usually not final capital allocators and rely on financial intermediaries with local knowledge to efficiently allocate the capital on the ground. MCFs started deploying larger amounts of capital in the region in the last five years, as exemplified by a US\$279M investment in the US\$600M Amazon Bioeconomy Fund from GCF in 2021 and a US\$6.2M investment in the Living Amazon Mechanism from GEF in 2023.

MCFs' ability to deploy capital is tied to their network in the country. Investments from MCFs are typically highly catalytical: US\$1 from GEF in grants can bring on average an additional US\$7 in co-financing from other investors.

Derisking instrument providers

Derisking instruments tailored to nature-based businesses are incipient, but can reduce project risks and improve bankability

Derisking instruments providers such as project-level guarantees²⁶ and portfolio-level guarantees (including first loss²⁷) providers do not directly disburse capital to projects, but their instruments can help mitigate risks, thereby incentivizing investment in bioresource businesses and reducing the cost of capital in the Amazon. Guarantees can be granted directly to projects seeking debt and lacking collateral or looking to improve their credit ratings. Portfolio-level guarantees are granted to financial intermediaries investing (in debt and/or equity) in a portfolio of companies. Derisking of a portfolio then allows

²⁶ A risk mitigation instrument that promises to repay all or some of the invested amount to the lender or investor in the case of default.

²⁷ A risk mitigation instrument in which a donor or other entity agrees to be the first to take losses if a business is unable to pay back investors.



intermediaries to deploy funds into smaller scale companies (ticket sizes <US\$1M) while project-level guarantees are usually offered only to large projects (ticket sizes >US\$50M) due to transaction costs.

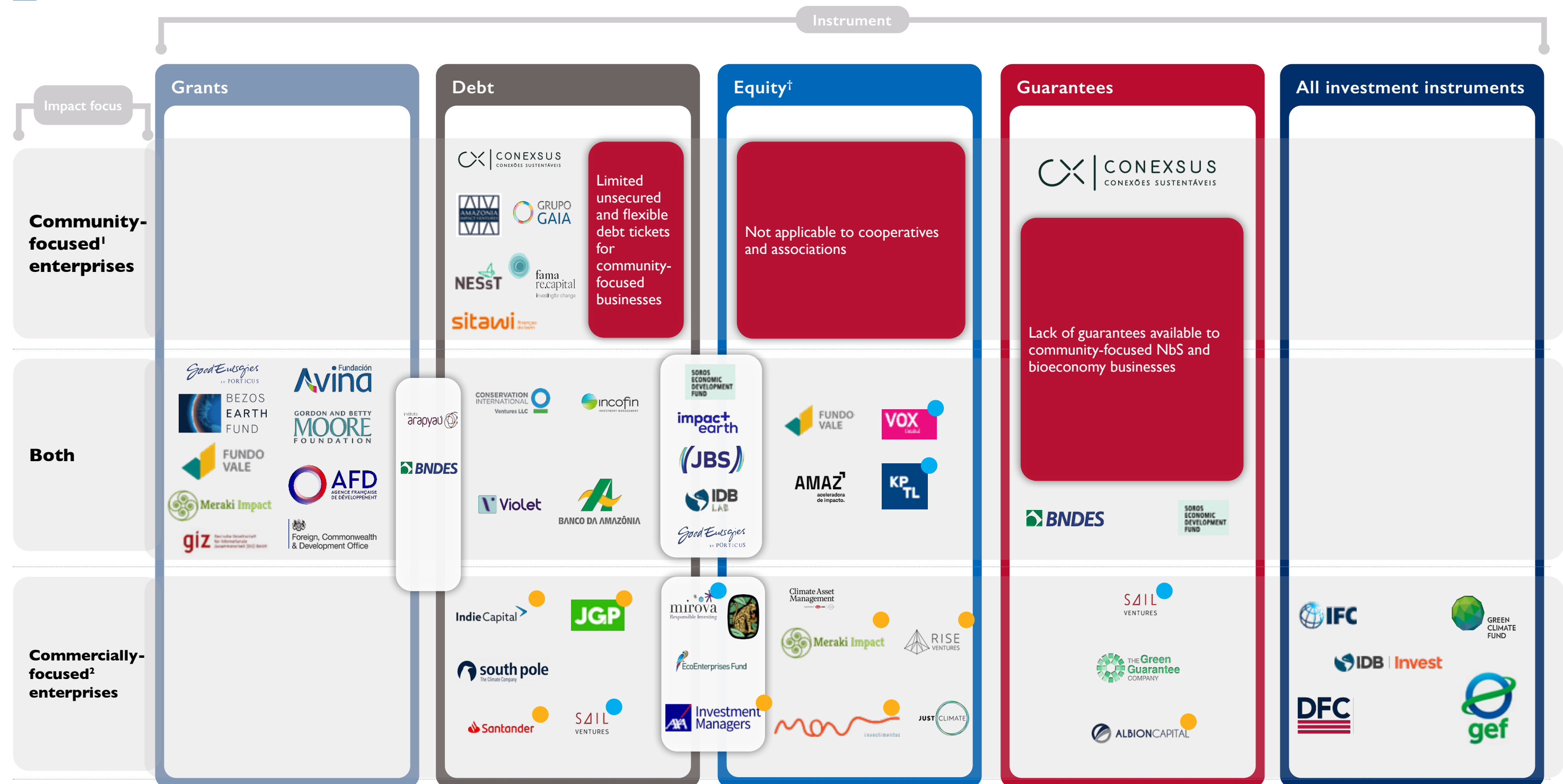
Examples of portfolio-level guarantees include DFC's 50% first loss on the principal of loans disbursed by the ABF and IDB's initiative to develop a first-loss mechanism with Banco da Amazônia.²⁸ Direct guarantees providers include i) the Green Guarantee Company (GGC), ii) Albion Capital through its SGS mechanisms for large loans (>US\$40M), iii) through investment vehicles such as the JBS Fund for the Amazon or the Conexsus Impact Fund for smaller loans (<US\$1.5M), or iv) BNDES's Guarantee Fund (Fundo Garantidor para Investimentos) for SMEs (up to US\$2M).

28 IDB, "Amazon BeEco: Unlocking an Inclusive Bioeconomy in the Pan Amazon" (2023).

4.2 Additional capital maps

Figure 6. Capital map by asset class and impact focus for bioresources business models in the Brazilian Amazon

Asset class and Investee Type

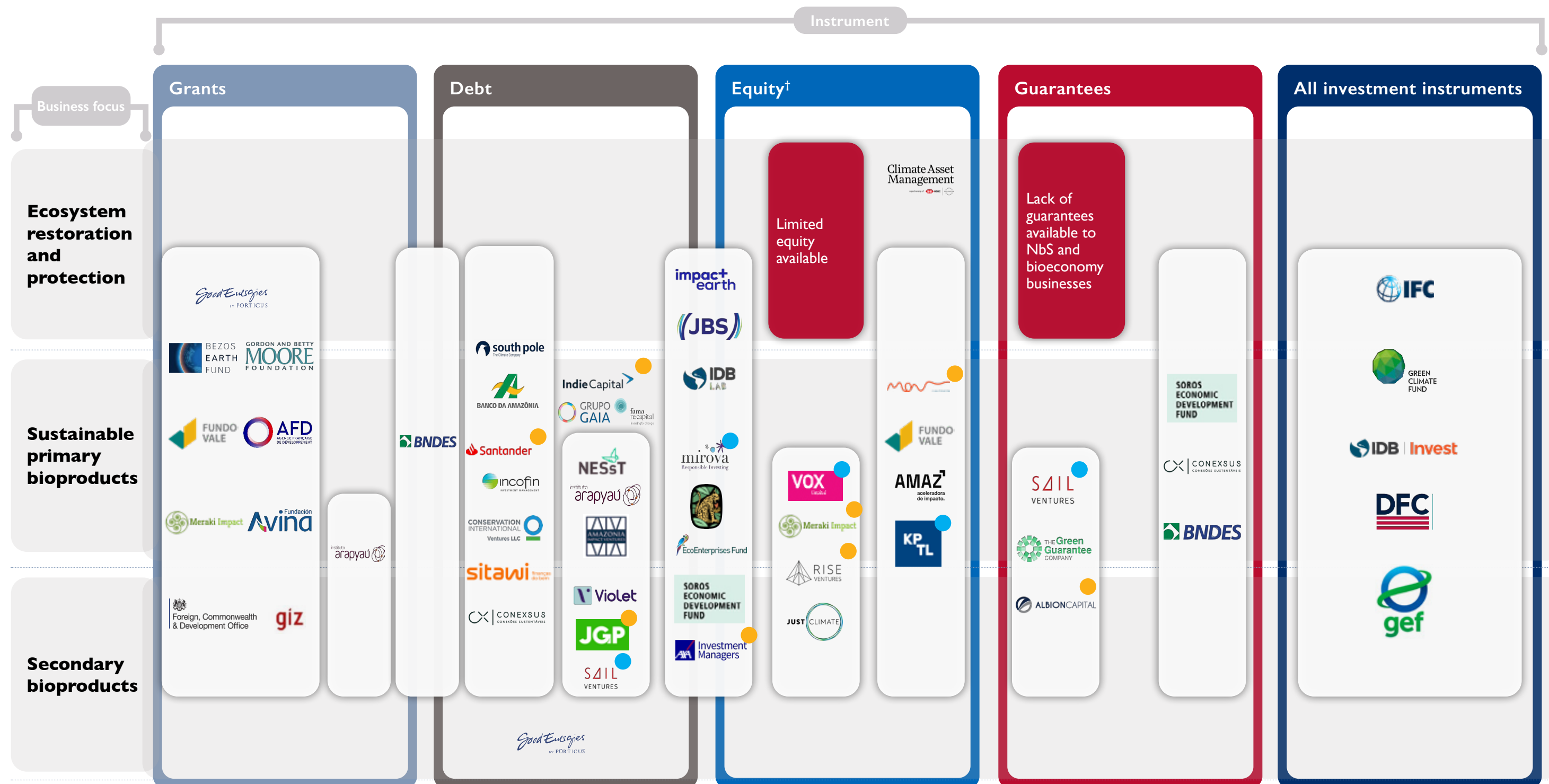


● Commercial capital ● Blended funds

Notes: 1. Cooperatives, smallholder farmers, community enterprises whose initiatives prioritize the well-being and development of local communities whilst preserving traditional knowledge, and support environmentally responsible practices 2. Formal businesses, usually legally constituted as limited liability companies, whose primary objectives are growth and profit-seeking

Asset class and Business Model

Figure 7. Capital map by asset class and ticket size for bioresources in Brazil





4.3 Summary tables of barriers effects dissagregated per bioresources business model

Table 4. Effect of market, sector, and firm level barriers on bioresources business models

Barriers	Rest./Protect.	Sust. Prim	Sec. Bio.
Market-level			
Infrastructure deficiencies make investments intrinsically riskier	 Logistics and electricity less representative of cost base	 Costs increased by poor logistics & electricity intermittency	 Less impacted by Amazon infrastructure; higher value-add; typically deployed in urban hubs
Land ownership complexities in the biome create significant risks for investors	 Businesses highly dependent on land titling	 Costly due-diligence and remaining insecurity means difficulty in using land as an asset and potential collateral	 Land-based issues are less impactful to operations, but can impact supply chain and raw materials used
Safety and reputational risks were raised as concern	 Large exposure to on the ground safety and VCM reputational issues	 Significant exposure to on the ground safety	 Since products are not land-based, most safety concerns do not apply
Table continues...			

Barriers	Rest./Protect.	Sust. Prim	Sec. Bio.
Sector & Financing			
There is a mismatch observed between investors' ticket size preferences and the capital needs of projects	— — Limited availability of small-scale early-stage project finance	— — — Lack of small debt lines for cooperative/association businesses and early-stage equity	— — Small availability of early-stage equity
SMEs and cooperatives struggle to secure working capital financing with repayment windows aligned to production cycles	N/A	— — Lack of suitable grace periods by most lenders	N/A
Amazon-focused asset managers have struggled to raise risk-aligned, patient capital	— — — Lack of patient and risk-prone capital particularly for restoration which has the longest pay-back	— — Lack of patient capital for land-use transition	N/A
Existing de-risking mechanisms are not designed to support nature-centric projects	— — — Land-collateral issue, on top of lack or performance/delivery guarantees, which are common in other types of project finance	— — — Land is hardly accepted as collateral, which increases the need for guarantees – which are scarce in the market	— — Overall lack of guarantee affects sector, but other assets (plants, machinery) available as collateral
Firm-level			
Lack of investment readiness hinders capital absorption, especially for smaller players	— — Some more sophisticated developers better equipped with development plans and financial models	— — — Cooperatives and SMEs typically lack business planning sophistication required by investors	— — Lack of sophistication being countered by increasingly better prepared start-ups



4.4 Relevant regulations and policies for bioresources

ABC+ Program

Climate-oriented policies have been concentrated from 2010 onwards, leveraging the launch of the 2009 National Policy on Climate Change (PNMC). This policy, prepared for the decade from 2011 to 2020, established Brazil's commitment to reduce greenhouse gas emissions and led to the adoption of the ABC Plan²⁹. The plan was renewed in 2020 and renamed ABC+ Plan to be implemented between 2021 and 2030 along with ABC+ Program, which includes the main rural credit lines designed to promote environmental preservation.

In the Brazilian Agricultural Plan for 2023/2024, the investment lines for the ABC Program have been renamed and are now part of the newly created Program for Finance Sustainable Agricultural Production Systems (RENOVAGRO). The government has two plans for rural producers: (i) Pronamp, aimed at medium and large producers, and (ii) PRONAF, aimed at small producers. US\$396M/year (13%) were channeled by PRONAMP while US\$333M/year (11%) were channeled by PRONAF.

PRONAF Credit Lines

PRONAF offers fourteen different credit lines³⁰, with interest rates ranging from 0.5% to 6%³¹. Individual loan size can be as high as US\$84K. These loans are intended for crop and cattle farmers, fishermen, aquaculture farmers, foresters, and extraction workers. Eligibility criteria include but are not limited to primarily using the family's own labor for the economic activities, at least 50% of the family's gross income must come from these activities, and total gross family income cannot exceed US\$100K.

Demand for PRONAF loans has decreased due to strict requirements in terms of credit history and collateral. Initiatives such as the Conexsus Impact Fund have tailored their instruments and theses to increase the access to PRONAF lines by community-led business.

29 Agricultural Sector Plan for Climate Change Mitigation and Adaptation for the Consolidation of a Low-Carbon Economy (Plano Setorial de Mitigação e de Adaptação às Mudanças Climáticas para a Consolidação de uma Economia de Baixa Emissão de Carbono na Agricultura – ABC Plan).

30 Financial resources are distributed through public and private banks.

31 CPI, "Family Farming in Brazil: Inequalities in Credit Access" (2023).

4.5 Focus on key Brazil-specific financial tools

Traditionally, the agricultural sector has been primarily funded by public capital through tailored credit lines. In recent years, the federal government has introduced legislation seeking to leverage private investments in the sector. The government contributed to the channeling of private finance towards agriculture through i) new types of financial instruments with the introduction of Agribusiness Receivables Certificates (CRAs) in 2004 and ii) new types of financial vehicles with the introduction of agricultural investments funds (FIAGROs) in 2020. Both instruments are mediated by a sponsor, a commodity trading company or cooperative for e.g. that holds a book of receivables, which will be assigned to investors as collateral. The key feature of these instruments that make them particularly attractive to financing the bioeconomy are:

1. For investors, they are free of income tax and IOF (the Brazilian tax over banking/ financial transactions). Investors also avail from collateral of high liquidity such as receivables from a large corporate client that the bioeconomy business may have or want to get access to.
2. For the end borrowers, the collateralization of their credits by receivables typically reduces their cost of capital.

Financial instrument: Certificado de Recebíveis do Agronegócio (CRAs)

Agribusiness Receivables Certificates (CRAs) are fixed income securities backed by business receivables involving rural producers, their cooperatives, and third parties. Introduced in 2004, CRAs allow credit receivables from agro-industrial businesses to be bundled into a security and offered in local capital markets. They provide stakeholders with an off-balance-sheet financing option, often at interest rates equal or lower than traditional sources, including bank loans supported by the federal government.

CRAs can be structured in two ways: direct lending and securitized lending. In the former, debt is directly invested into the issuing company or debt owner, which then finances agricultural producers. In the latter, investments are made directly into a credit portfolio that includes multiple borrowers (such as producers), who transfer their risks to investors through an intermediary, similar to a producer's association. Currently, direct CRAs make up 90% of structured agribusiness debt, with securitized instruments accounting for the remaining 10%.



Green CRAs, launched in 2016, are a subtype of CRAs that require rural producers to adhere to specific sustainability criteria, including low-carbon agriculture, soil restoration, forest regeneration, and integrated crop-livestock-forest systems. For instance, a US\$3.4M Green CRA was issued in January 2023, maturing in three years, providing working capital for 22 community businesses in multiple crops including cocoa, Brazil nut, and açai. The vehicle also finances four SMEs in the North and Northeast regions of Brazil with a strong focus in the Amazon. Of the total amount, US\$1.4M is allocated to Conexsus (channeling funds from Fundo Vale and Good Energies) and US\$2M to Belterra. The credit amount lent to cooperatives varies from US\$16K to US\$120K. The loan tenors typically follow the harvest period, around 12 months, with an interest rate of 12% per year for producers. This rate is below the interbank rate and significantly lower than the usual cost for these community businesses, which would be around 40%. While CRAs are common in agribusiness financing, they are still rare in funding the bioeconomy. In this instance, the involvement of a major bank was notable: Santander acted as the lead coordinator and purchased part of the issuance. Gaia, responsible for structuring, also participated as an investor.

Investment vehicle: Fundo de Investimento nas Cadeias Produtivas Agroindustriais (FIAGRO)

To reduce agricultural dependency on public subsidies and forge closer ties between financial markets and the agribusiness sector, the Brazilian government created an alternative form of investment called Investment Funds in Agro-industrial Production Chains (FIAGRO). The three types of FIAGROs are:

- ➔ Fiagro de Fundos de Investimentos em Direitos Creditórios (FIAGRO-FIDC): investment funds investing in agribusiness receivables and securities backed by agribusiness receivables, including CRAs
- ➔ Fiagro de Fundos de Investimento Imobiliário (FIAGRO-FII): invest in rural lands and real estate receivables related to rural land
- ➔ Fiagro de Fundos de Investimento em Participações (FIAGRO-FIP): invest in equity interests in companies that explore activities in the agri-industrial chain

One of the most notable features of FIAGRO is that it lifts previous restrictions on land acquisition. Under Brazilian legislation, foreigners are not permitted to own rural lands. FIAGRO allows foreign investors to participate in the land market without having property or domain over rural lands.

FIAGROs, are more flexible to CRAs in that they allow investing in credits from more than one sponsor who may operate in a particular region or with a particular crop; dealing with additional sponsors can mean diversifying investments. The choice of a FIAGRO or a CRA also depends on the fees. FIAGROs, as a fund, carry a management fee. However, the distribution fee for the arranger can be larger on CRAs given their lower flexibility. This means that expanding the pool of borrowers and underlying trade transactions will likely entail new CRA issuances and fees.





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