

Quarterly bulletin featuring news, studies and external analysis, focusing on the latest developments in the Amazon region. The mapping work for the bulletin is conducted by Catavento for Fundo Vale and companies in the Cubo business ecosystem. Prepared and curated by [Catavento](#). Distributed by [Fundo Vale](#).

## PUBLIC POLICIES

### BRAZILIAN GOVERNMENT ESTABLISHES NATIONAL BIOECONOMY STRATEGY

**What?** [A new strategy](#) aims to guide public policies for the bioeconomy, in conjunction with civil society, the private sector and the public sector. In addition to strengthening social and biological diversity chains, a new decree provides for the establishment of the National Information and Knowledge System on the Bioeconomy, in order to compile market data. At the same time, the [G20 Bioeconomy Initiative](#) received [suggestions to define the concept](#) for these activities, which have a potential economic value of [US\\$4 trillion globally](#).

**Why does it matter to the private sector?** The promotion of such policies, [in agreement with different stakeholders](#), will create better market conditions for the Amazonian bioeconomy.

## CORPORATE LEADERSHIP AND INSPIRING INITIATIVES

### INITIATIVE PROMOTES CONNECTIVITY IN AMAZON COMMUNITIES

**What?** The [Forest Peoples Connection](#), initiative, financed with philanthropic capital, aims to connect [1 million members of traditional communities in the Amazon \(spread across 116 million hectares\) by 2025](#). By the end of 1Q23, there were already [16,000 registered users](#) in indigenous and riverside communities. In addition to an [antenna from Starlink \(Elon Musk's satellite internet company\)](#), each community will also receive a [solar energy kit and lithium battery](#) to store power.

**Why does it matter to the private sector?** Advancing connectivity in the Amazon is helping increase access to professional opportunities, as well as creating conditions for greater autonomy for local communities.

## CLIMATE EMERGENCY

### CLIMATE DISASTERS REINFORCE NEED FOR RESILIENCE

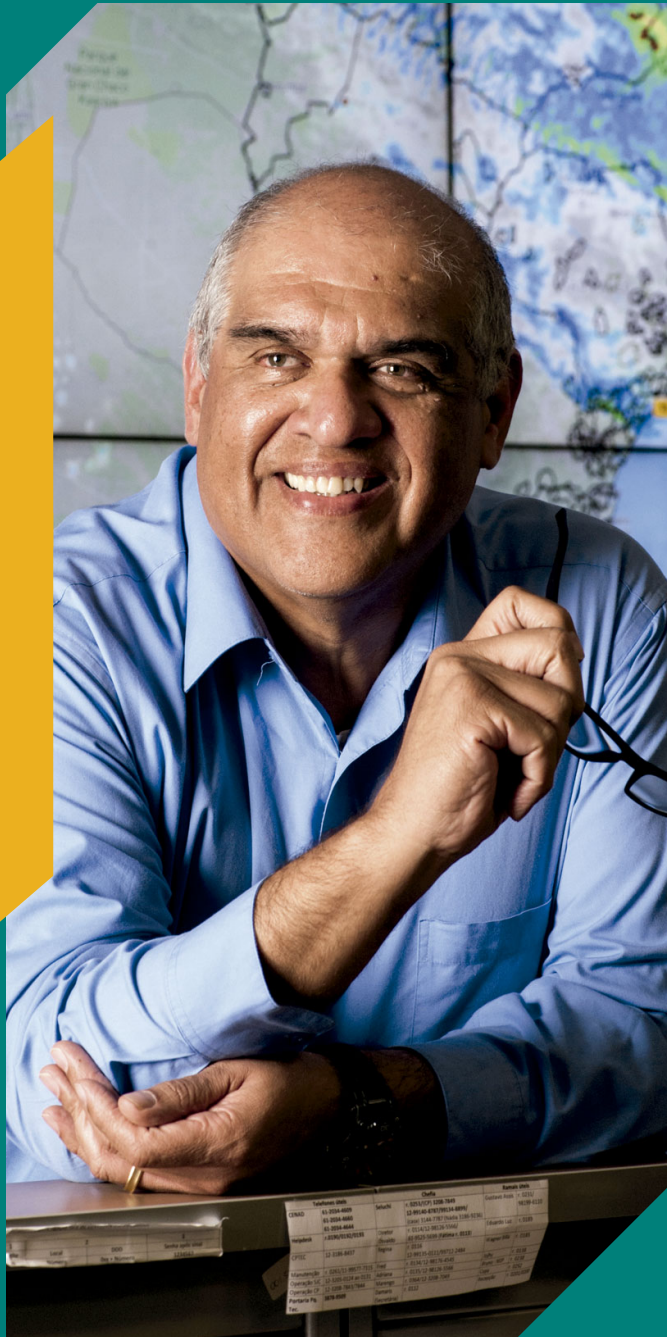
The May 2024 floods in Rio Grande do Sul, southern Brazil, [caused at least R\\$11 billion of damage](#), reflecting the global trend of higher climate costs, of which [60% \(US\\$111 billion\) were uninsured in 2023](#). At the same time, [according to a study](#) by the [National Academy of Science](#), 37% of the Amazon region is already showing signs of reduced resilience to more intense droughts in the biome, jeopardizing the recovery of its ecosystem services.

In this context, [Professor José Marengo, coordinator of CEMADEN and a researcher at INPE](#), had an exclusive interview with Fundo Vale, in which he talked about the connection between the Amazon and extreme weather events experienced in Brazil.

#### 1. How does deforestation in the Amazon influence the occurrence of extreme weather events in different parts of Brazil, including in the Amazon biome itself?

The Amazon is a crucial source of moisture for rainfall, both over the Amazon itself and in distant regions. The humid air masses that come from the tropical Atlantic Ocean and enter the biome are enriched with more moisture from the recycling of water by the forest through evapotranspiration. This is concentrated in so-called "flying rivers," atmospheric currents that pass east of the Andes,

bringing this moisture from the Atlantic to regions such as midwestern, southeastern and southern Brazil, as well as the La Plata Basin. Phenomena such as El Niño and global warming can affect the flow of the flying rivers. Sometimes this flow is interrupted, resulting in less moisture from the Amazon to these regions, which can cause droughts. On other occasions, the flow is too intense, generating torrential rains that can trigger natural disasters. With the deforestation of the Amazon, this hydrological cycle is likely to be further altered.



## **2. Brazil has recently experienced an increase in fires in the Amazon, prolonged droughts along the Madeira River and in the Pantanal Wetlands, and floods in Acre, Espírito Santo and Rio Grande do Sul. Can we say that these events are likely to become more common in the coming years?**

Yes, in general, extreme levels of precipitation, including heavy rains and dry spells, are becoming more frequent and intense in southeastern and southern Brazil as a consequence of global warming. This trend is observed all over the world, where more frequent and intense heat waves and hurricanes may also occur. Fires and lower river levels are associated with drought, i.e., a lack of rainfall, which together with heatwaves can affect ecosystems.

## **3. In this context, what are the possible mitigation and adaptation actions? Is there a role to be played by companies, especially those with local operations?**

To minimize these impacts, companies must reduce their greenhouse gas emissions, reduce air and water pollution and combat deforestation. To do this, they can support reforestation programs featuring native species, invest in clean technologies and promote the carbon credit market. In terms of adaptation, we need to invest in protection works, such as infrastructure-based adaptation, as well as using vegetation as a form of ecosystem-based adaptation.

## INNOVATIVE PLATFORMS TARGET CATALYTIC RESOURCES FOR SUSTAINABLE BUSINESSES IN THE AMAZON

**What?** The Amazon+21 Institute has announced a [new blended finance platform](#), which aims to raise up to [R\\$4 billion by 2034](#) for [bioeconomy and forest conservation projects, among others](#). At the same time, Fama Re.capital and Gaia announced a partnership for [two new microcredit-based funds](#) for family farming and regenerative initiatives. Furthermore, the [Amazon Journey launched Sinergia Investimentos](#), which aims to accelerate startups with investments of between R\$300,000 and R\$1 million.

### Why does it matter to the private sector?

Unconventional sources of resources, taking into account specific regional circumstances, tend to strengthen the sustainable business ecosystem.

## CARBON REMOVAL BEGINS TO GAIN TRACTION, BUT IS STILL SHORT OF WHAT IS NEEDED

**What?** An [Oxford University report](#) points out that afforestation/reforestation is the main means of carbon dioxide removal from the atmosphere, amounting to [around 2.2 GtCO<sub>2</sub>e](#) per year. However, the total needs to reach 7 to 9 GtCO<sub>2</sub>e per year by 2050 if we are to limit the global rise in temperature to 1.5°C. In this context, big tech firms have announced the [Symbiosis Coalition](#), aiming to fund up to [20 MtCO<sub>2</sub>e of carbon dioxide removal](#) by 2030. One of these companies (Microsoft) has already signed [credit purchase agreements with re.green](#) and [TIG, part of the BTG group](#).

**Why does it matter to the private sector?** Despite the challenges of ensuring permanence, [forest carbon removal is considered by science to be effective](#), and it is an opportunity for companies in the Amazon.

## 11% DROP IN DEFORESTATION IN BRAZIL IN 2023 IS LED BY THE AMAZON

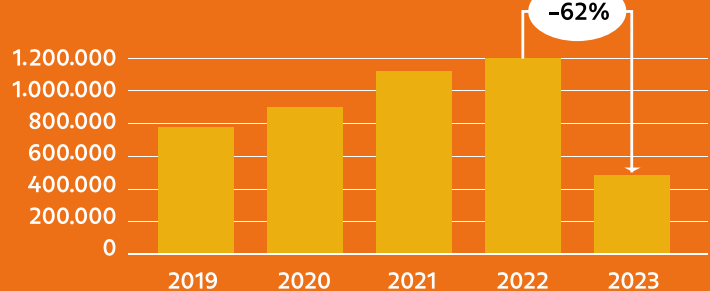
**What?** [MapBiomias](#) points out that the Cerrado Savanna and Amazon Rainforest accounted for more than 85% of Brazil's total deforested area in 2023 (1.8 million hectares). However, it is noteworthy that [the Cerrado overtook the Amazon for the first time, accounting for 61% of the total](#), largely due to agricultural activities. Although deforestation in the Amazon fell by 62% between 2022 and 2023, a [forest degradation caused by fires and logging jumped by more than 3,000% in the region](#) in the first four months of the year.

### Why does it matter to the private sector

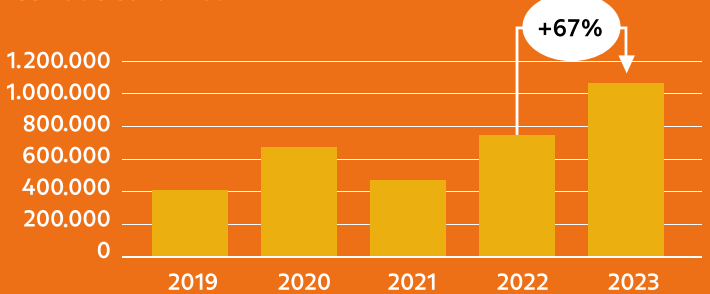
Deforestation, mostly associated with illegal activities (93%), impacts the business environment in the region and intensifies climate risks in Brazil.

### Deforestation in the Amazon and Cerrado biomes over time (hectares)

#### Amazon Rainforest:



#### Cerrado Savanna:



## OFFERING PUBLIC LAND FOR ENVIRONMENTAL SERVICES COULD BE AN OPPORTUNITY FOR COMPANIES

**What?** The Brazilian development bank, BNDES, is evaluating the revenue that could potentially be generated by payments for environmental services across 65 million hectares of federal forest land. In this context a decree was issued for concession areas for carbon projects. At the same time, the state government of Amazonas authorized five companies, through a bidding process, to develop carbon projects on 11.9 million hectares of public land. The contracts stipulate that they are responsible for running the projects and will receive 15% of the revenue generated.

**Why does it matter to the private sector?** Operating on government land entails potential risks involving land issues, the need to consult with communities and exposure to illegal acts.

## INVESTMENTS IN BIODIVERSITY RESEARCH IN THE AMAZON ARE DISPROPORTIONATELY LOW

**What?** A study indicates that institutions in the Amazon received the least federal funding in Brazil (US\$481,000, or 10% of the total) for academic research into biodiversity between 2016 and 2022, concentrated in the cities of Manaus and Belém (90%). In addition to public funding, there is also room to leverage resources from private sector RD&I. For example, the PPBio program seeks to connect companies and researchers, as in an initiative that is developing herbal medicines based on Amazonian tree sap.

**Why does it matter to the private sector?** Promoting RD&I in the world's most biodiverse region is essential to boosting innovation capacity in forest-compatible activities.

## SBTi CONSIDERS ALLOWING USE OF OFFSETS, CAUSING CONCERN AMONG EXPERTS

**What?** The Science-Based Targets initiative (SBTi) said that it is considering accepting the use of offsets for scope 3 emissions. The announcement came amid discussions about the role of the voluntary carbon market, whose transactions shrank 56% in volume and 61% in value between 2022 and 2023, to 110 MtCO<sub>2</sub>e and US\$723 million, respectively. This trend is reinforced by suspicious of illegality in REDD+ projects and greater scrutiny from buyers about reputational issues.

**Why does it matter to the private sector?** Changes in international standards and growing questions about REDD+ projects reinforce the need to adopt best practices for carbon credits.

### Changes in Voluntary Carbon Market Transactions in 2023

■ Forest credits ■ Renewable energy ■ Household devices

2023			% 2023 vs. 2022		
Volume MtCO <sub>2</sub> e	Amount (US\$ million)	Average price (US\$)	Volume MtCO <sub>2</sub> e	Amount (US\$ million)	Average price (US\$)
36,2	351,3	9,7	-68%	-69%	-4%
28,6	111,1	3,9	-69%	-71%	-7%
9,9	76,6	7,7	+10%	-1%	-10%