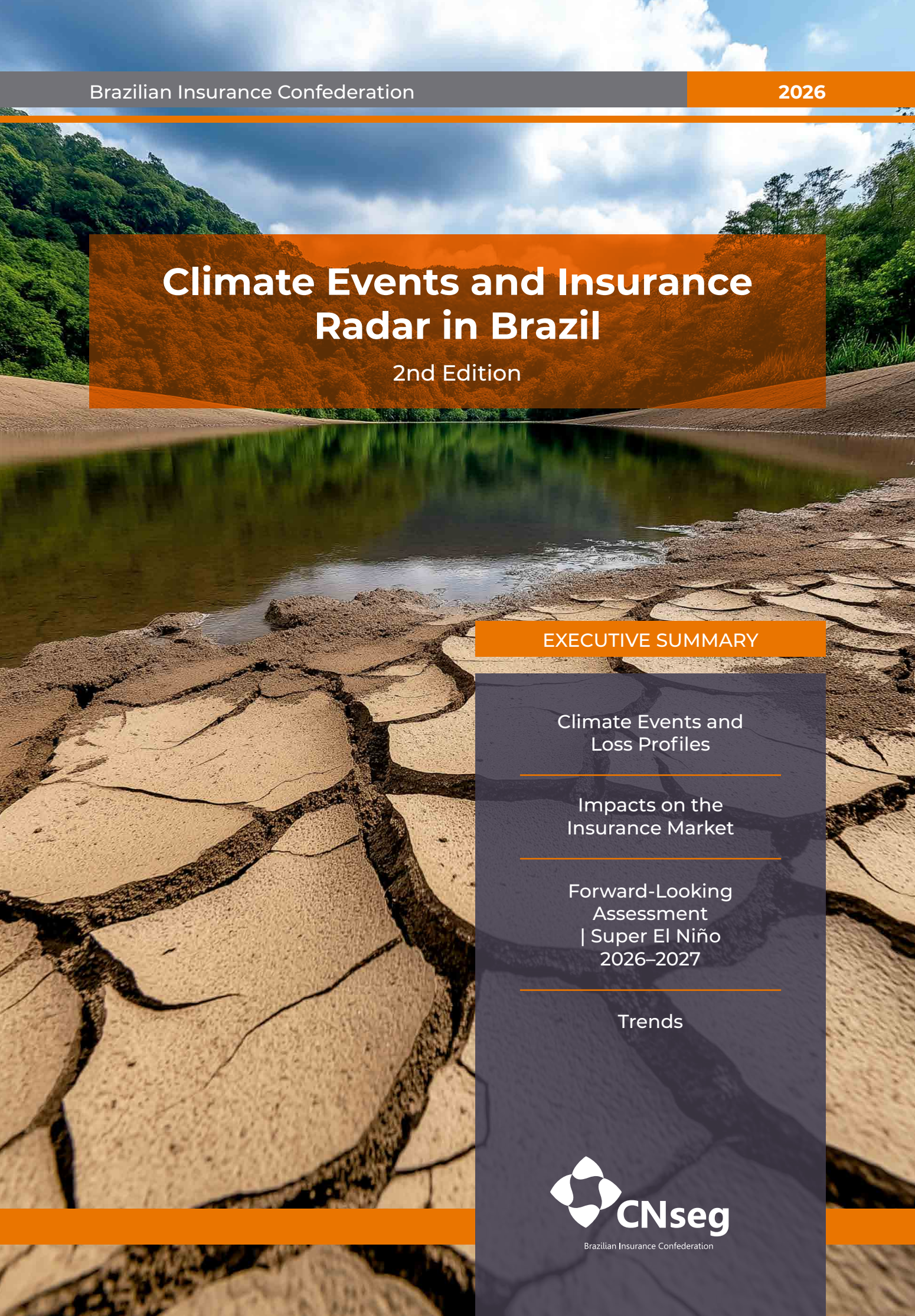
Brazilian Insurance Confederation

2026



Climate Events and Insurance Radar in Brazil

2nd Edition

EXECUTIVE SUMMARY

Climate Events and Loss Profiles

Impacts on the Insurance Market

Forward-Looking Assessment | Super El Niño 2026–2027

Trends

CNseg

Brazilian Insurance Confederation

METHODOLOGY

Radar consolidates information from public databases, technical studies, and insurance market data to identify and assess significant climate-related events in Brazil, their human impacts, the resulting economic losses, and their implications for insurance claims, indemnity payments, and affected lines of business. The 2026 edition covers data from 2025 and the first half of 2026, with comparisons to 2024 where possible.

Its primary objective is to assess Brazil's insurance protection gap, defined as the share of economic losses that is not covered by insurance. The analysis provides a structured basis for assessing the country's vulnerability to climate-related events, including the nature and magnitude of such events and the economic sectors and geographic regions most significantly affected. The resulting evidence supports decision-making to advance climate change adaptation. It also underscores the role of insurance in risk management, contributing to more effective planning, preparedness, and recovery in the face of extreme events.

1 Integration of data sources

Public databases, climatological, meteorological, and hydrological information, technical studies, news reports, and data collection from the insurance market.

2 Selection and Characterization

Information is consolidated on event types, geographical scope, affected sectors, economic losses, and human impacts.

Criteria for selecting Significant Events: estimated economic losses exceeding BRL 300 million; 10 or more fatalities; or more than 100 people affected.

Characterization of Economic Losses: the sum of material damages and economic losses incurred by the public and private sector

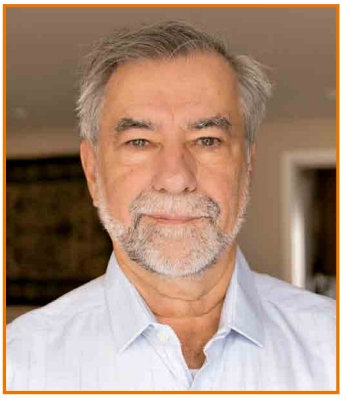
- **Material damages:** impact on housing (damage to residences and other buildings) and infrastructure (damage to public infrastructure works, roads, bridges, energy systems, water supply, sanitation, and drainage);
- **Public Sector Economic Losses:** disruption and restoration of essential services such as healthcare, sanitation, urban cleaning, energy, transportation, and education;
- **Agriculture and Livestock Economic Losses:** losses affecting crops, harvests, agricultural production, and livestock, strongly associated with drought events;
- **Private Sector Economic Losses (Other):** impacts on other productive activities, including disruptions to production and services, industry, commerce, inventory losses, reduced revenues, and other losses.

3 Insurance Market Assessment

Consolidation of claims paid, affected lines of business, and the insured share of losses.

EXPERT VIEW

CLIMATE CHANGE: THE BILL HAS ALREADY COME DUE



PROF. PAULO ARTAXO,

Director of the Center for Sustainable Amazon Studies (CEAS), University of São Paulo (USP)

Climate change has a significant impact on the economy and on society. Its effects can be seen in the loss of lives, harm to health, the destruction of homes and infrastructure, and the losses incurred by a range of productive sectors.

One of the most worrying consequences is the possibility that extreme events will occur more frequently and with greater intensity. A prolonged drought can reduce agricultural output, strain water supply and affect electricity generation. Heavy rainfall, in turn, can cause floods, landslides and damage to roads, power grids and homes. Beyond immediate losses, these events disrupt activities, drive up costs and require reconstruction investments that could otherwise be directed to other needs.

Brazil is particularly vulnerable because of its continental size and the importance of climate-dependent economic activities. A significant share of the economy is tied to agriculture and livestock, whose productivity can be undermined by more severe droughts and declining rainfall in Central Brazil.

El Niño, a natural phenomenon associated with the anomalous warming of waters in the equatorial Pacific, has a strong influence on Brazil's climate. As the oceans warm, its effects are intensifying. In Brazil, these include droughts in the Amazon and the Central-West, heavy rainfall in the South and heat waves in the Southeast. When these effects coincide with local vulnerabilities, such as the occupation of flood-prone areas and a lack of adequate infrastructure and insurance, losses can be amplified. The 2026-2027 El Niño may reinforce the concentration of drought and heat-related losses in the Central-West and the North/Northeast, and trigger a new cycle of more severe rainfall in the South and Southeast.

The impacts of climate change are not evenly distributed. Low-income families and residents of exposed areas tend to have fewer resources to protect themselves and recover. Protecting the population therefore requires more than responding to disasters after they happen. It calls for investment in prevention, early warning systems, urban planning and policies that support the most vulnerable people and sectors.

The bill for climate change has already come due, but its final amount depends on the choices made now. Acting quickly can reduce losses, save lives and make the economy more resilient. Delaying decisions, by contrast, means taking on greater risks and passing a growing cost on to future generations.

CLIMATE EVENTS AND LOSS PROFILES

WHAT IS THE RADAR?

Climate Events and Insurance Radar in Brazil, an initiative within CNseg's **Climate Intelligence Hub**, monitors the evolution of major climate events observed across the country and analyzes their economic, human, and insurance-related impacts to provide a comprehensive overview of how climate risks affect geographic areas, economic sectors, and the insurance market.

HIGHLIGHTS

Economic Losses caused by climate events (2025 – June 2026)

2025: BRL 46.7 bi
economic losses caused by climate events

2026: BRL 51.9 bi
economic losses caused by climate events

93%
of economic losses caused by drought events

11.2%
of economic losses were covered by insurance payouts

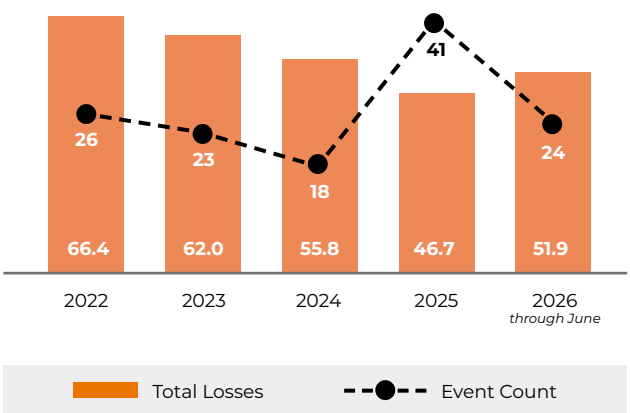
Claims paid by the Brazilian insurance market

R$ 953 mi
in climate-related claims paid in 2025 (1.6% of total non-life claims)

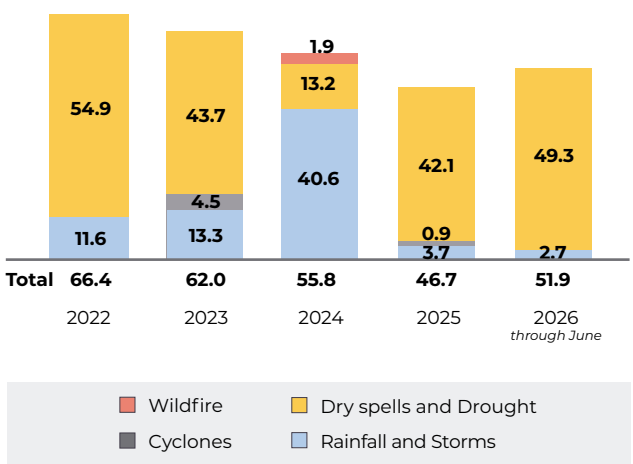
R$ 426 mi
In climate-related claims paid from January to June 2026 (1.5% of total P&C claims)

74%
of climate-related claims between January 2025 and June 2026 were concentrated in two lines of business: Rural (42.8%) and Property (31.3%)

Historical Record of Significant Climate Events and Losses (BRL billion)



Estimated Losses from Significant Events (BRL billion)



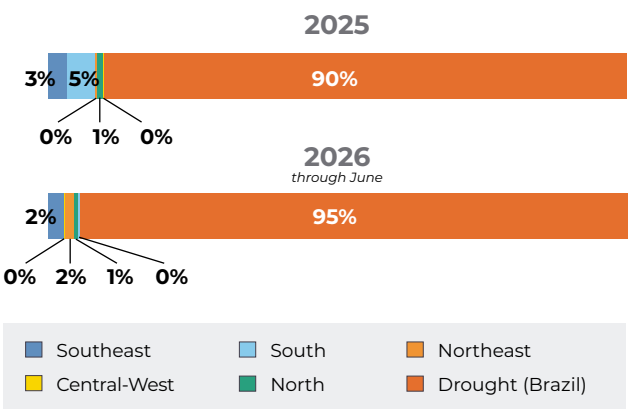
Between 2025 and June 2026, 65 significant events were identified[1], resulting in estimated economic losses[2] of BRL 98.6 billion. In 2026, based on data for the first half of the year, 24 events have been identified, with estimated losses totaling BRL 51.9 billion, indicating an increase in impacts relative to the previous year.

Drought events have historically accounted for the largest share of economic losses, and accounted for 93% of the losses recorded nationwide between January 2025 and June 2026, largely associated with the agricultural and livestock sectors. In the Northeast, significant public-sector losses were also recorded due to water supply shortages.

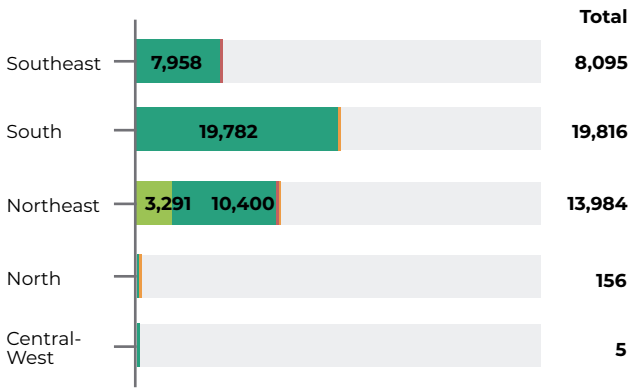
Rainfall and storms were the second-largest driver of losses during the period analyzed, with the greatest economic impact in Brazil's Southeast region. Even so, economic losses from these events declined in 2025 and 2026 compared with the preceding period, most notably 2024, when the floods in Rio Grande do Sul accounted for R$ 35.6 billion of the R$ 40.6 billion in losses caused by rainfall and storms that year.

Share of losses: nationwide drought vs. other events by region

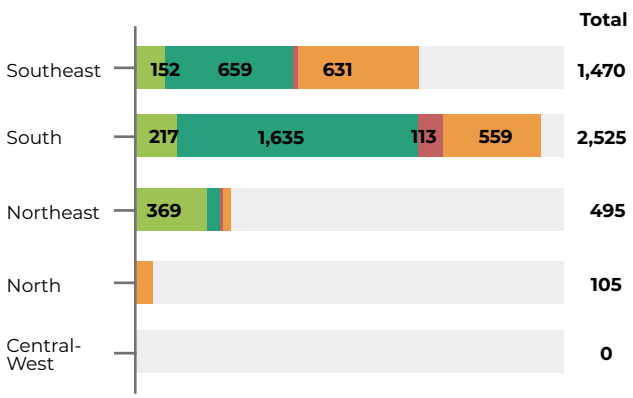
Percentages may not add up to 100% due to rounding



Drought-Related Losses by Region – 2025 (BRL million)



Losses from Rainfall and Storm Events by Region – 2025 (BRL million)



1 Considering events with estimated losses exceeding BRL 300 million, 10 or more fatalities, or more than 100 people affected.

2 The total sum of material damage and public and private-sector economic losses (see p.2, Methodology).

EVENTS AND LOSSES

Drought throughout the country

2025

BRL 42.1 billion in estimated economic losses

1,373 municipalities

13,508 people affected

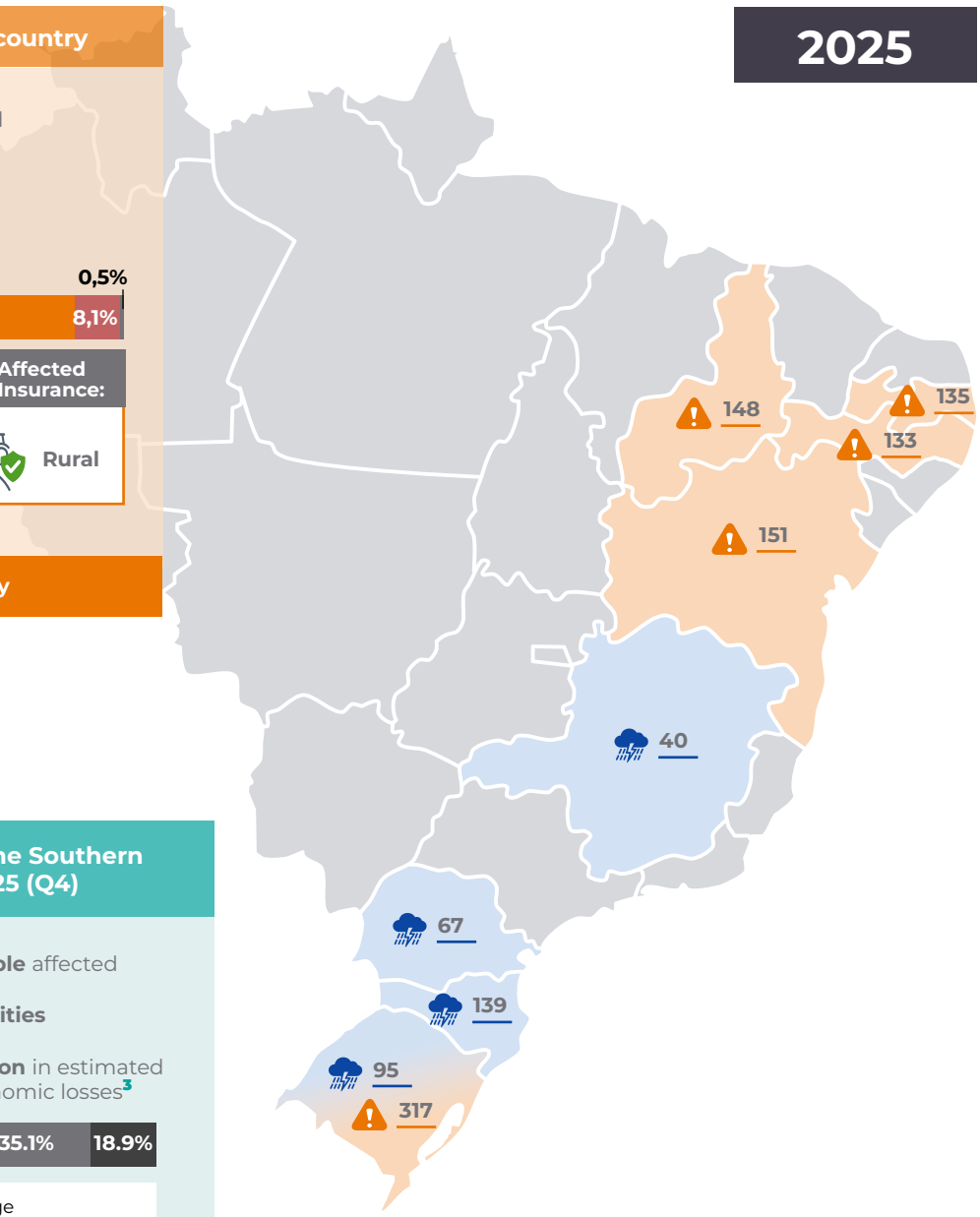


- Agriculture and Livestock
- Public Sector
- Private Sector (other)

Most Affected Line of Insurance:

Rural

State of Emergency



Extratropical Cyclone in the Southern Brazil, December 2025 (Q4)



3,445 people affected

4 fatalities

BRL 633 million in estimated economic losses[3]



- Material Damage
- Agriculture and Livestock
- Public Sector

3 The absence of Private Sector (other) losses (see p.2, Methodology) may be associated with underreporting in official sources.

Most Affected Lines of Insurance:

Rural | Motor | Property

Extreme Rainfall, Flooding and Inundation

433 municipalities | **79,626** people affected | **52** fatalities

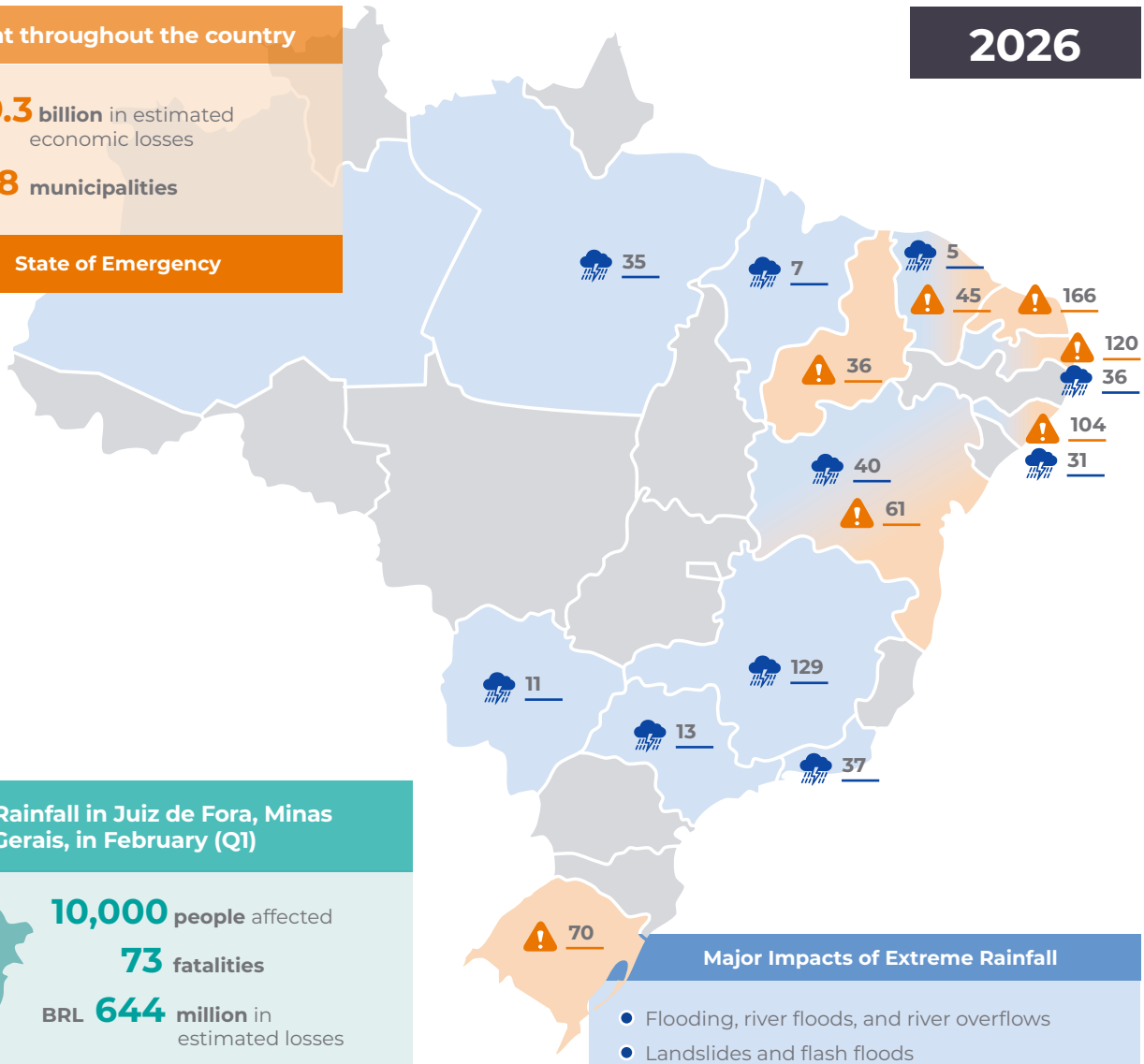
Drought throughout the country

BRL **49.3** billion in estimated economic losses

718 municipalities

State of Emergency

2026



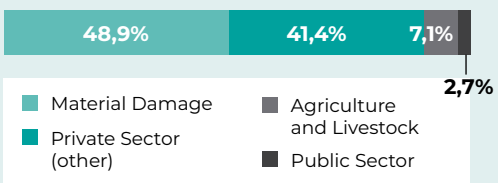
Heavy Rainfall in Juiz de Fora, Minas Gerais, in February (Q1)



10,000 people affected

73 fatalities

BRL **644** million in estimated losses



Most Affected Lines of Insurance:

Rural | Motor | Property

Major Impacts of Extreme Rainfall

- Flooding, river floods, and river overflows
- Landslides and flash floods
- Damage to properties and homes
- Infrastructure damage
- Impacts on economic activity and production
- People affected, displaced, and left homeless

Extreme Rainfall, Flooding and Inundation

368 municipalities | **146,291** people affected | **120** fatalities

IMPACTS ON THE INSURANCE MARKET

CLIMATE-RELATED CLAIMS PAID

In 2025, the insurance market paid approximately **BRL 953 million in climate-related claims**, equivalent to **1.6%** of all property and casualty claims paid that year. This share varies across the lines of business affected.

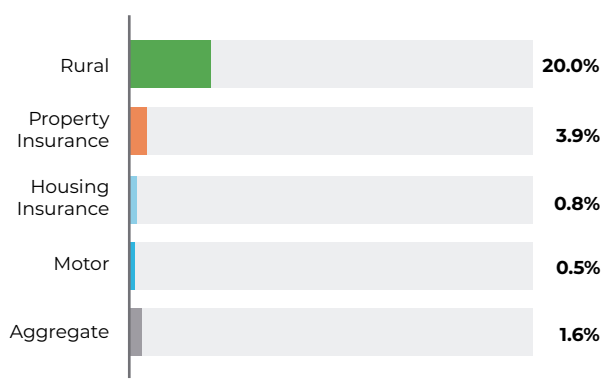
As expected, the volume of claims paid was lower than in 2024, when payouts reached approximately BRL 7.3 billion, largely due to the exceptional flooding in Rio Grande do Sul, which alone generated R$ 6 billion in claims paid. This difference reflects not only the magnitude of the events recorded but also changes in the composition of losses, with drought and dry spells predominating in 2025.

Drought-related losses are closely linked to Agriculture and Livestock Sector. Comparing Rural Insurance coverage in recent years with the volume of climate-related claims paid helps explain the lower level of payouts: in 2025, only 3.3% of the cultivated area was covered by insurance.

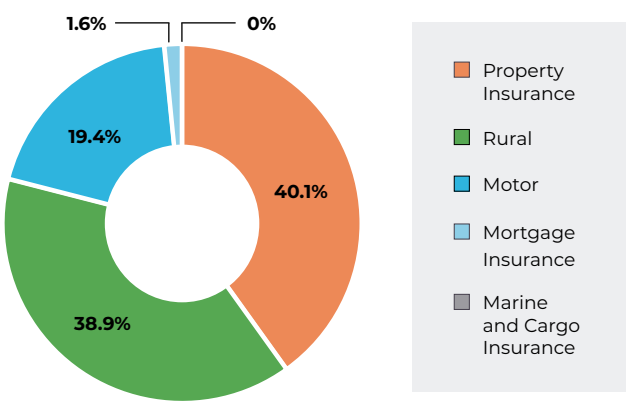
Climate-related claims paid were concentrated primarily in the **Property (40.1%) and Rural (38.9%**) lines of business, followed by **Motor (19.4%)**.

In the first half of 2026, the insurance market paid BRL 426 million in in climate-related claims, equivalent to 1.5% of property and casualty claims paid. This result is consistent with drought remaining the main driver of economic losses and with the low level of Rural Insurance coverage.

Climate-related claims as a share of total claims paid, by line of business, 2025



Distribution of climate-related claims paid by line of business in 2025

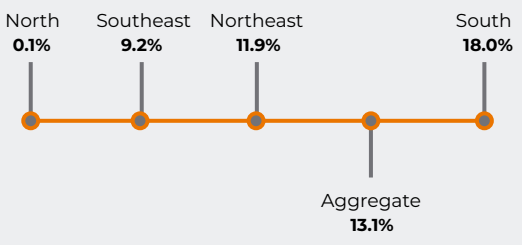


INSURANCE PROTECTION GAP

The protection gap for the period from January 2025 to June 2026 stood at 88.8%, meaning that share of climate-related losses was not covered by insurance. An estimated 13.1% of economic losses from climate disasters (excluding drought events) were covered by the Brazilian insurance market in 2025, and 7.9% through June 2026. By comparison, this average reached 13% in 2024. Significant regional disparities in the protection gap should also be noted (see chart).

In the case of prolonged droughts, which broadly affect the agricultural sector and multiple regions simultaneously, only an estimated 0.8% of the losses reported by Civil Defense were covered by insurance in 2025, and 0.4% in the first half of 2026, compared with 7% in 2024. These are the lowest levels ever recorded in the series.

Insured share of economic losses by region (Excluding Drought) 2025[4]



4 The insurance protection gap for the Central-West region could not be measured, as no significant non-drought events (with losses above R$ 300 million, 10 or more deaths, or more than 100 people affected) were recorded in the region in 2025."

KEY MESSAGES

- **Brazil's greatest climate risk, drought, remains virtually uninsured**
- **Brazil is less protected**

The insured share of losses (excluding drought) was 13.1%, compared with 23% in Latin America and 51% worldwide.

- **Rural insurance has shrunk, precisely the activity most exposed to climate**

Drought losses tripled, while climate-related claims in rural insurance fell by around 60% and the insured share of grain area dropped from 6% to 3%. Reversing this situation requires large-scale premium subsidies, integrated with rural credit and capital markets.

- **In cities, climate risk is no longer just about catastrophes**

Climate-related claims grew in value across urban portfolios in 2025 compared with 2024 (excluding the Rio Grande do Sul floods): by around 50% in Property and 30% in Motor, while Rural declined. This signals that moderate, frequent events put growing pressure on these portfolios.

- **In the Northeast, drought is already a recurring public expense, and El Niño could make it extreme**

In the Northeast, drought causes significant direct losses to the public sector, linked to water supply. This profile underscores the urgency of raising awareness among governments and creating the conditions for financial protection mechanisms that can ease the burden on public budgets.

SUPER EL NIÑO 2026–2027

Major international climate models indicate the potential for an exceptionally strong El Niño in 2026–2027, with sea surface temperature anomalies exceeding 3°C in the central equatorial Pacific and some scenarios projecting anomalies of approximately 3.5°C by late 2026. Above the +2°C threshold, the phenomenon could exacerbate the concentration of drought and heat-related losses in the Central-West, North, and Northeast regions, and severe rainfall in the South and parts of the Southeast.

Implications for the Insurance Sector

The simultaneous occurrence of droughts, heatwaves, wildfires, and severe rainfall events may increase the regional concentration of losses, the correlation of losses across insurance lines, and demand for reinsurance capacity. Two priorities are essential: monitoring exposure by region and line of insurance and reviewing loss severity scenarios.



REGIONAL IMPACTS ACROSS BRAZIL

NORTH

Reduced rainfall, higher temperatures, and lower river levels

- **Socioeconomic Impacts:** Pressure on water resources, healthcare, and mobility in isolated communities; smoke and drought increase the incidence of illness.
- **Potential Long-Term Risks:** Reduced river flows and groundwater recharge; wildfires and income losses hinder local recovery.

NORTHEAST

Prolonged drought and heat

- **Socioeconomic Impacts:** Smallholder farming is more vulnerable; water shortages put pressure on incomes, food supplies, and municipal services.
- **Potential Long-Term Risks:** Droughts can persist for years and erode the municipal tax base; municipalities with limited capacity are slower to recover.

CENTRAL-WEST

Irregular rainfall, dry spells, and wildfires

- **Socioeconomic Impacts:** Reduced productivity and smoke affect livelihoods, income, and health; the Pantanal warrants particular attention.
- **Potential Long-Term Risks:** Repeated droughts and wildfires compound agricultural, livestock, and logistics losses; southern Mato Grosso do Sul also faces a risk of extreme rainfall.

SOUTHEAST

Heat, irregular rainfall, and extreme weather events

- **Socioeconomic Impacts:** Heat puts pressure on healthcare, water supplies, and energy systems. In poorer areas, inadequate infrastructure increases the likelihood that heavy rainfall will lead to disaster.
- **Potential Long-Term Risks:** Water stress and extreme heat affect reservoir levels and productivity, while recurring urban weather events increase indirect losses and put additional pressure on infrastructure and public services.

SOUTH

Above-average rainfall and extreme weather events

- **Socioeconomic Impacts:** Flooding affects housing, health, schools, sanitation, and mobility; disruptions reduce employment and income.
- **Potential Long-Term Risks:** Prolonged disruptions reduce revenue and investment; recurrent events put pressure on capacity, pricing, and financial protection.

TRENDS

MORE VOLATILE LOSSES AND INSUFFICIENT PROTECTION

Climate risk in Brazil is intensifying and diversifying, alternating between prolonged droughts and extreme hydrological events. In the first half of 2026, losses (R$ 52 billion) had already exceeded those for the whole of 2025, highlighting growing uncertainty for the insurance sector.

FUTURE RISK IS MORE INTENSE AND WIDESPREAD

By 2030, around **70% of drought-exposed municipalities** could face high risk of water stress. The El Niño forecast for 2026–2027 may intensify rainfall in the South and worsen drought in the North and Northeast.

STRONG PAYMENT CAPACITY, WIDE GAP TO COVER

The insurance market has shown its capacity to respond: in the Rio Grande do Sul floods, more than 57,000 claims were filed and R$ 6 billion was paid. In 2025 and the first half of 2026, climate-related claims payments totaled R$ 1.4 billion. Even so, only 17% of the losses in Rio Grande do Sul were insured. In 2025, the insured share was 11.2% (excluding drought), 0.6% for drought. Expanding this protection requires technical responsibility and actuarial balance.

CHALLENGES

Pricing through climate uncertainty

El Niño and La Niña shift loss patterns, making historical data less representative for estimating future risks.

Low insurance uptake limits the data available to calibrate rates and pricing models.

Insufficient and uneven coverage

Vulnerable households are more exposed to heavy rainfall and losses in at-risk areas.

Damage to infrastructure and emergency spending puts pressure on the public sector; the insured share of grain area fell from 6% to 3%.

Managing risk concentration

The 2026–2027 El Niño may intensify rainfall in regions with high concentrations of insured assets, putting pressure on portfolios and reinsurance

Lack of geolocated exposure data limits insurers' ability to adjust underwriting, retention and risk transfer strategies

OPPORTUNITIES

Catastrophe protection mechanism

Establish a National Strategy for Financial and Insurance Protection against Catastrophes, with defined layers of protection and clearly assigned responsibilities. Less severe events can be absorbed by the market; extreme events require risk sharing among different stakeholders.

Microinsurance and inclusive insurance

Expand affordable products with simple coverage, effective distribution and communication that builds trust. Low-income households in at-risk areas are poorly served.

Improving databases

Differences in municipal damage records limit loss assessment, pricing and risk modeling. The market can invest in more granular, geolocated data and more detailed climate scenarios to support forward-looking pricing, accumulation management and adaptation planning.

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