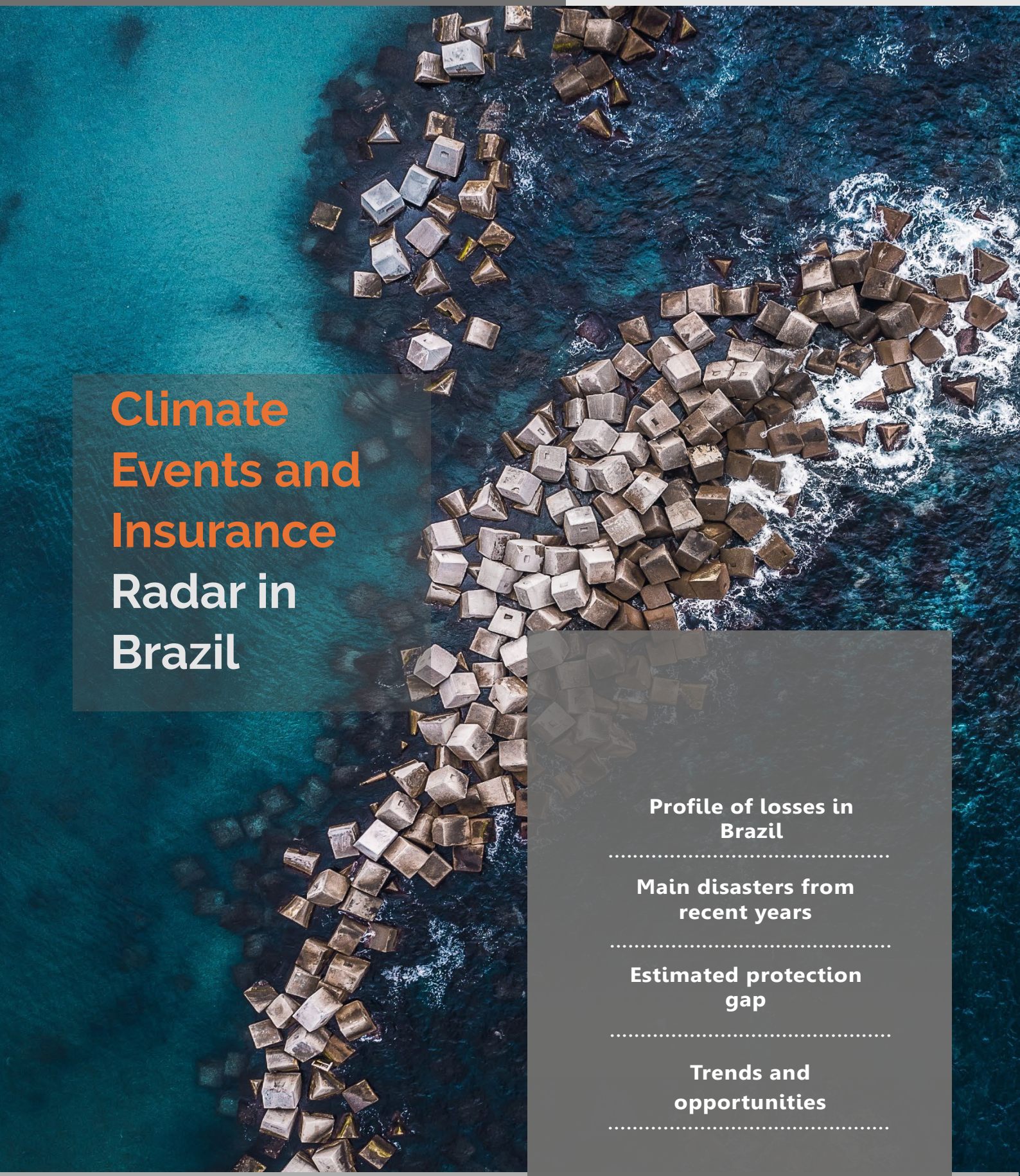
Published by the Brazilian Insurance Confederation (CNseg)

Executive Summary



Climate Events and Insurance Radar in Brazil

Profile of losses in Brazil

Main disasters from recent years

Estimated protection gap

Trends and opportunities

2025

CNseg

Access the full report below

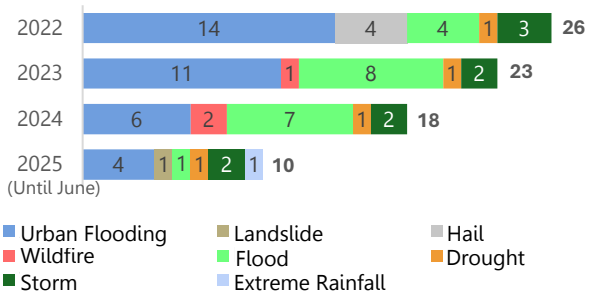
History of losses related to climate events

Main events from recent years[1]

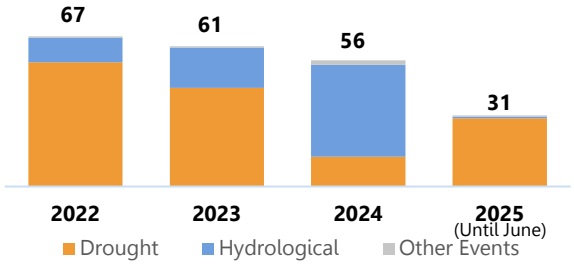
Between 2022 and 2024, **67 significant events** were identified, resulting in estimated economic losses of **BRL 184 billion**. In **2025**, with data up to june, **10 events** had already been identified, accumulating estimated losses of **BRL 31 billion**.

Despite the higher frequency of isolated phenomena related to rainfall volume (**Hydrological**), such as **storms and flooding**, **drought** events are more representative in terms of economic losses, as they affect larger regions (virtually the entire country) throughout the year

Significant Climate Events Frequency



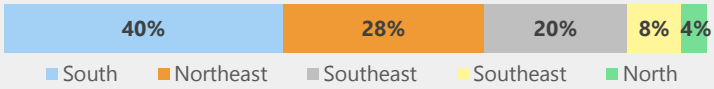
Estimated Losses from Events – in BRL Billions (up to June)



Economic losses in the last decade (Jan/2015-Jun/2025)[2]

The **South region has concentrated most of these losses.** The **Agricultural sector** was the most affected in all regions.

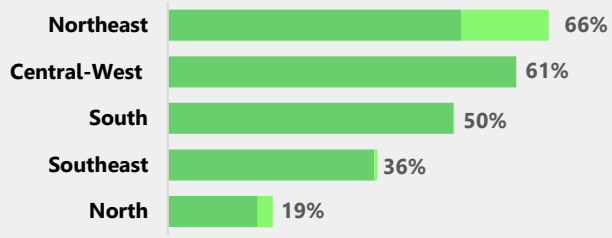
% of Losses by Region



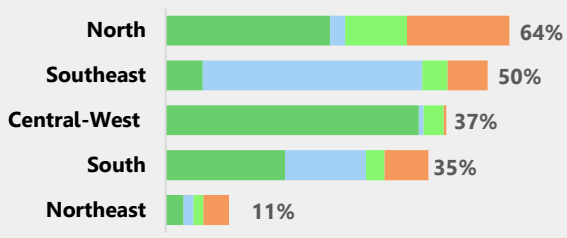
Drought events, usually related to losses in the Agricultural sector, accounted for more than 50% of the losses observed in the **Midwest, South, and Northeast** regions. In the **Northeast, significant losses are also registered in the Public sector** due to water supply shortages.

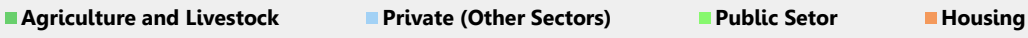
Hydrological events had a more significant impact in the **North, Southeast, Midwest and South**, however, the impacts affect different sectors according to the analyzed region.

% of Losses from Drought Events



% of Losses by Hydrological Events





Other effects from climate disasters

Beyond economic impacts, **climate events also affect people's lives and health**. These effects appear in the form of **deaths**, usually caused by floods, inundations, and flash floods, and **displaced or unhoused** individuals, resulting from diverse events ranging from droughts to floods and cold waves.

Health effects should also be highlighted, both the direct effects, such as the number of **ill and injured**, as well as indirect and chronic effects, such as the **increased incidence of infectious diseases, including viral, bacterial, and parasitic**.

1 According to research conducted by CNSEG, considering estimated losses that exceed BRL 300 million, 10 or more deaths, or over a 100 affected people
2 According to data from SEDEC

Impacts on the Insurance Market

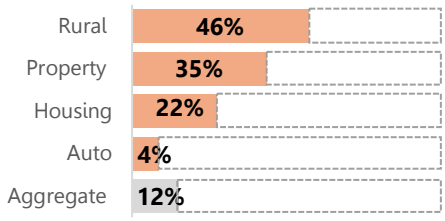
Insurance claims from climate events

In 2024, insurance claims for property and casualty insurance amounted to BRL 60.4 billion.

Of this total, **about 12% (BRL 7.3 billion) are related to climate events**.

This amount not only provides financial relief to the population that faced significant losses but also highlights the importance of the insurance sector in **protecting against risks** related to climate change and **reducing the dependence on public resources in crisis management.**

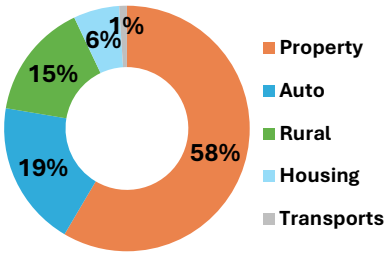
Insurance claims from climate events compared to total insurance claims per LOB in 2024



Most affected lines of business (by % of insurance claims paid in 2024)

Although the Agricultural sector is the most affected by climate events in economic losses, it does not concentrate on the largest amount of insurance claims. This is explained by the low participation of rural insurance in Brazil. In 2024, only about 6% of the total planted grain area had insurance coverage, representing a 50% reduction compared to 2023 (CNseg, 2025; CONAB, 2025).

% of Paid Insurance Claims in 2024



Thus, the **Property group** accounted for the largest share of indemnities related to climate disasters in 2024, with **58% of paid insurance claims.** This group includes both mass-market products for individuals, such as Residential insurance, as well as comprehensive, named perils and operational risk products for companies.

Housing and Auto insurance also hold significant shares in the insurance claims volume, reflecting the substantial portion of assets at risk.

Reinsurance

The groups that most used reinsurance for disasters were Property, Housing, and Rural.

In the Rio Grande do Sul event, an exceptional case, **69%** of insurance claims were covered by reinsurance.

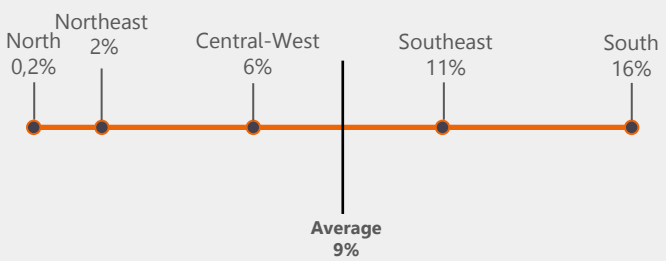
Protection Gap

Based on the study produced by CNseg along with its associates, it is estimated that about **9%** of economic losses from climate disasters are covered by the Brazilian insurance market (in 2024, this average reached **13%**, mainly due to the Rio Grande do Sul disaster).

In developed countries, the average coverage varies between **20%** and **55%**, depending on the methodology, period, and study parameters.

Notably, the North and Northeast regions have the largest gaps, with an average coverage below 2%.

Coverage interval for significant portion of Economic Losses incurred due to the analyzed Climate Disasters



On developed countries, this average can vary between 20% and 55%

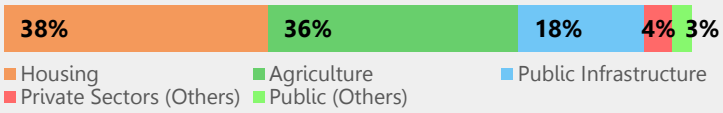
Main Events in 2024

Floods in Rio Grande do Sul (2nd Trimester)

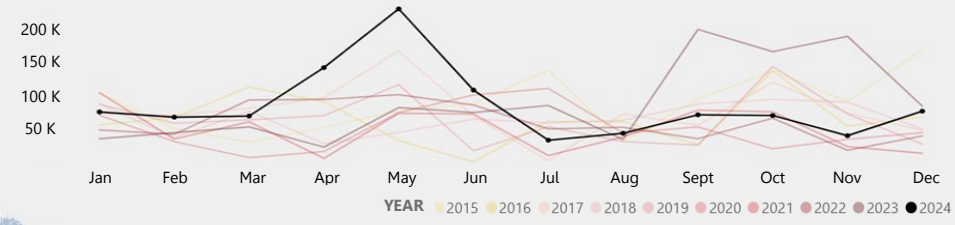
People affected:
2.4 Million

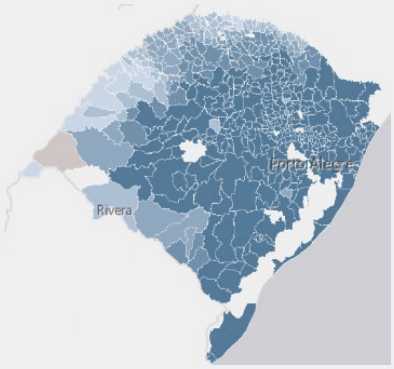
Deaths:
182

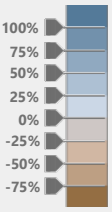
Estimated damages:
BRL 35.6 Billion ▶ **17%** covered by insurance



Rainfall History (mm) – Rio Grande do Sul

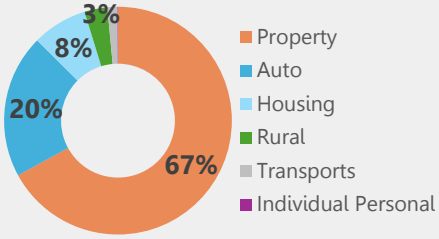






Relative difference between the rainfall volume observed in 2024 and the previous 10 years average (Apr, May and Jun)

Covered portion by insurance segment

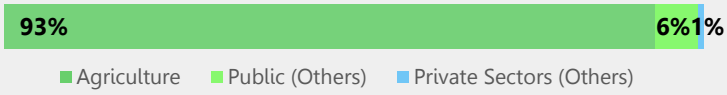


Drought across the Country (Year)

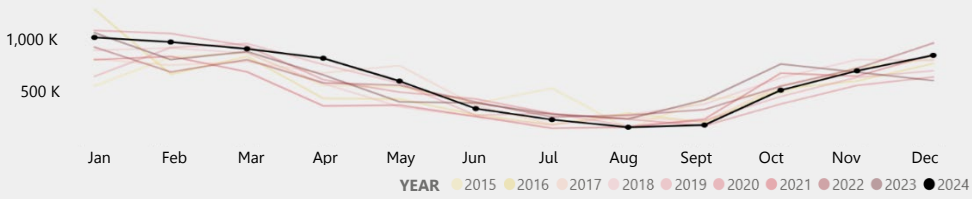
People affected:
3.8 Thousand

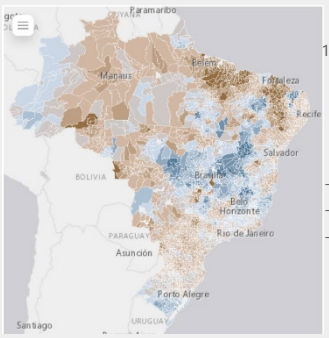
Deaths:
5

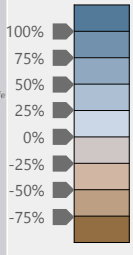
Estimated Damages
BRL 13.2 Billion ▶ **6%** covered by insurance



Rainfall History (mm) – Brazil

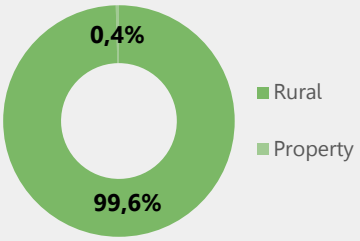






Relative difference between the rainfall volume observed in 2024 and the previous 10 years average (Aug, Sep and Oct)

Covered portion by insurance segment



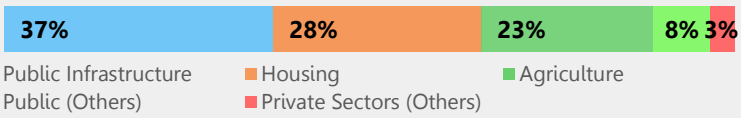
Main Events in 2024

Floods in Maranhão (2nd Trimester)

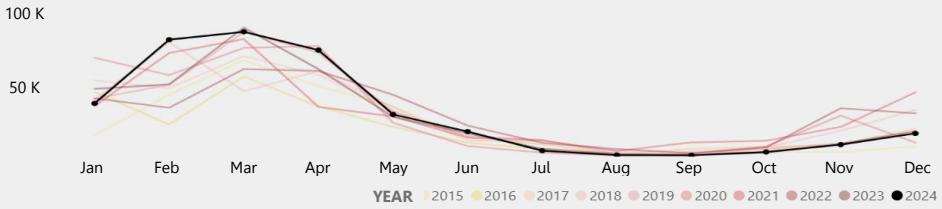
People affected:
2.3 Thousand

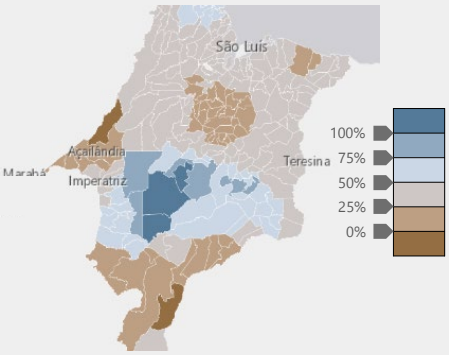
Deaths:
3

Estimated Losses
BRL 1.5 Billion ▶ **0,02%** covered by insur-



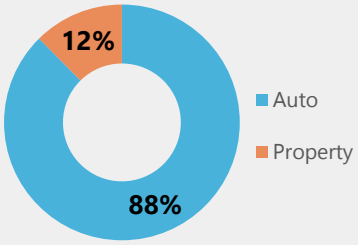
Rainfall History (mm) – Floods in Maranhão





Relative difference between the rainfall volume observed in 2024 and the previous 10 years average (Feb, Mar and Apr)

Covered portion by insurance segment

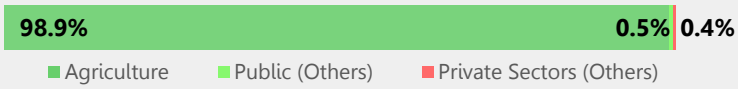


Fires in São Paulo (3rd Trimester)

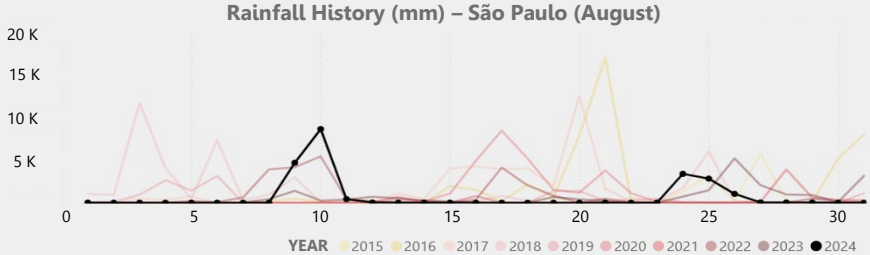
People affected:
945

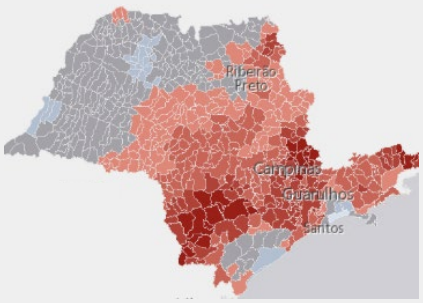
Deaths:
4

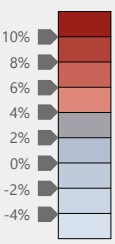
Estimated Losses:
BRL 1 Billion ▶ **2%** covered by insurance



Rainfall History (mm) – São Paulo (August)

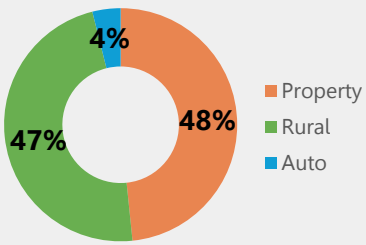






Relative difference between the maximum temperature volume observed in 2024 and the previous 10 years average (Aug)

Covered portion by insurance segment



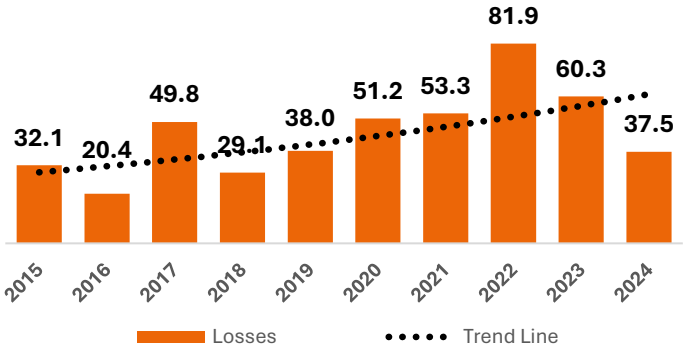
Trends

Increase in losses caused by climate events[3]

With increasing global warming, climate change effects are **becoming more severe, resulting in greater economic losses**.

This new risk reality directly impacts how insurers **identify, assess, and manage exposures**, requiring the revision of traditional processes.

The growing public awareness of climate issues is **transforming societal risk perception**, reinforcing insurance as an **essential tool for adaptation and resilience** to extreme climate events.



Impacts and Challenges for the Insurance Market:

Product Pricing

Historical losses may not accurately reflect the magnitude and frequency of future climate risks, requiring new analytical approaches to more precisely estimate future exposure.

However, the **scarcity of reliable data and the limited disclosure of relevant climate-related information** applicable to insurers' operations hinder adequate pricing. (BIS, 2023)

Coverage Offer

Climate disasters in Brazil show that **economically vulnerable populations** are the most affected. It is necessary to develop solutions to strengthen protection for these groups, be it through accessible products or **public-private protection schemes.**

Losses in **public infrastructure and essential services** show that most of these facilities do not have insurance coverage. It is important to explore ways to make the provision of insurance for cities, urban infrastructure, and critical services feasible.

Risk Management

Climate risks can present varying levels of severity, requiring a **combination of traditional and innovative mechanisms to spread exposure** and expand insurance capacity, avoiding **adverse selection**.

Climate risk **cannot be absorbed entirely by insurers**; a shared model among multiple agents is essential to ensure ecosystem sustainability.

3 Losses registered in the SEDEC database, that may vary depending on the event, from the estimated losses considered for this study.

Opportunities

Expansion of Coverage and Reduction of the Protection Gap

As extreme climate events become more frequent and impactful, insurers must **adapt their offerings to protect policyholders and strengthen social resilience**. The growing demand for climate-risk coverage creates opportunities for the development of new products.

New Products and Services:

There is potential for products that **integrate technology, data, and efficient processes**, with clear and easy-to-understand conditions.

Insurers can **act before crises, providing alerts, monitoring, and prevention measures**, and **after crises, providing emergency assistance and recovery support**, making insurance a continuous tool for adaptation.

Combining financial coverage with risk management services enables more strategic solutions.

New Audiences and Markets:

Accessible products and public-private protection schemes can expand **coverage for low-income populations and small businesses**, reducing protection gaps and increasing inclusion, strengthening the trust in the insurance industry and stimulating spontaneous demand for other insurance products.

It is imperative to think of ways to develop and offer **solutions for cities, urban infrastructure and strategic services**, strengthening the sector's and society's resilience, **protecting key assets and assuring the continuity of essential services** exposed to extreme climate events.

Incentives for risk mitigation:

Insurance can become a tool that not only protects but also **encourages and catalyzes more sustainable and resilient economic behavior.**

Responsible Investment and Underwriting:

Allocating resources to assets aligned with the sector's investment profile and with positive social-environmental impacts allows insurers to promote sectors and practices that reduce climate and environmental risks.

Developing **pricing criteria that reward risk mitigation practices** creates a mechanism capable of stimulating the adoption of sustainable measures by the insured. This approach can generate a ripple effect, with possible effects over insurance premiums as economic agents implement effective actions.

Insurance for Climate Transition

Integrating **transition plans with active policyholder engagement** allows for continuous monitoring, technical guidance and support for the implementation of mitigation and adaptation measures, strengthening operational resilience and the adoption of sustainable practices.

Expanding coverage for strategic sectors for the climate transition and sustainable, low-carbon practices produces Synergy between taken risks and long-term socioenvironmental benefits, as well as enables these practices.

Developing **insurance for nature,** encouraging valuing natural assets and upkeeping ecosystemic services, contributing to **mitigating risks that compromise long-termi environmental and economic conditions**.

Sustainable Rebuilding:

The insurance market can design products that include **additional benefits for adaptation and risk mitigation** after an event, such as providing coverage that encompasses improvements that reduce future risks. (IAA, 2023)

Additionally, insurers can establish requirements for homes to be rebuilt according to more strict construction guidelines.

Climate Events and Insurance Radar in Brazil, 2025. ©

Brazilian Insurance Confederation

President
Dyogo Oliveira

Sustainability Director
Claudia Prates

Director of Technical, Research and Regulatory Affairs
Alexandre Leal

Editorial Board
Luciana Dall'Agnol, Pedro Werneck e Thiago Ayres

In collaboration with EY

Marcelo Lustosa

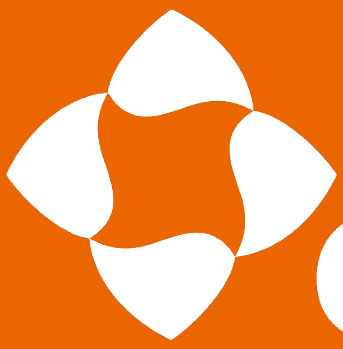
Fernando Gouveia

Fernando Silas Siedschlag

Julia Pereira

Mariana Balieiro

Contact information:
Senador Dantas street 74, 16º floor - Centro - Rio de Janeiro, RJ – Zip Code 20031-205
Tel. 21 2510 7777 - www.cnseg.org.br



CNseg

Confederação Nacional das Seguradoras