GENEVA ASSOCIATION

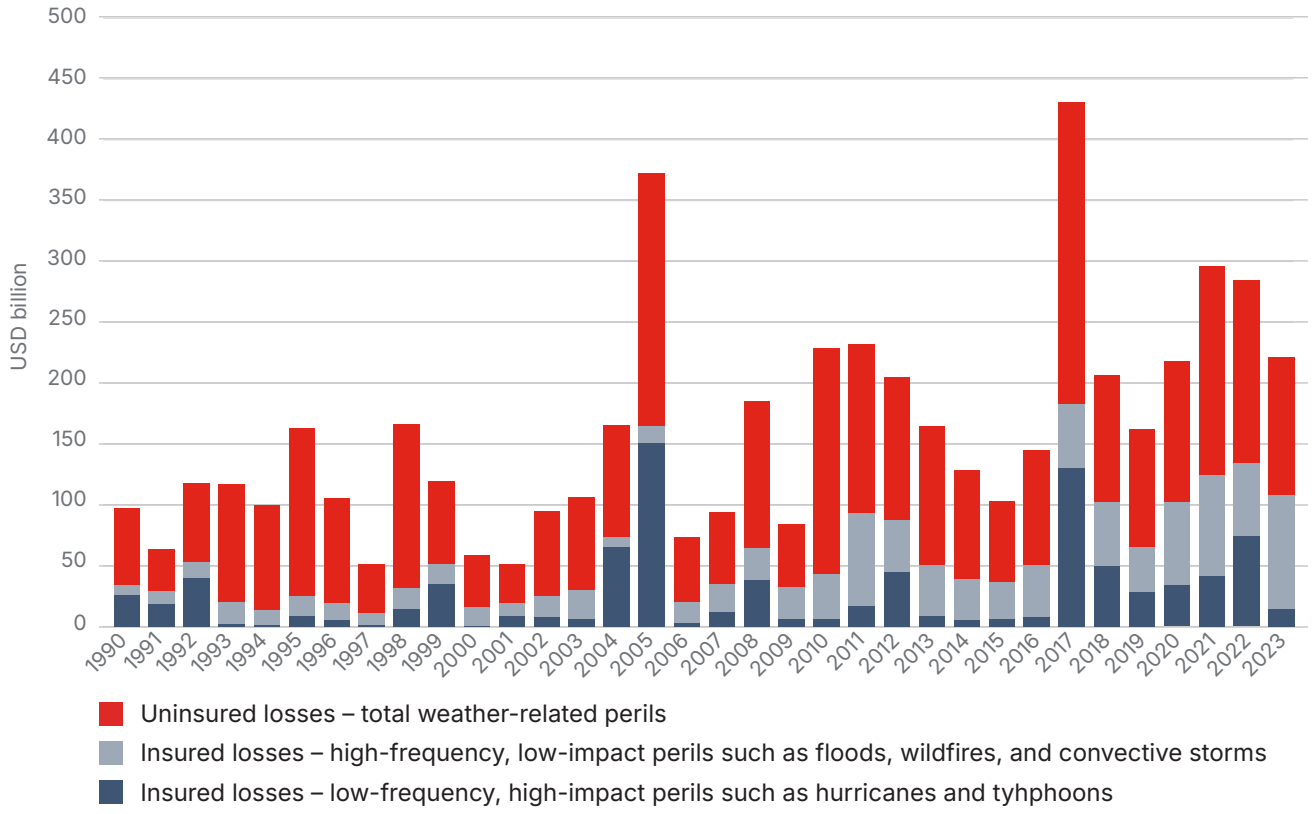
Safeguarding Home Insurance: Reducing exposure and vulnerability to extreme weather

Research summary | May 2025

Maryam Golnaraghi, Director Climate Change & Environment, Geneva Association
Zhelyan Vichev, Junior Researcher, Climate Change & Environment, Geneva Association

Globally, insured losses from extreme weather events have been on the rise over the last three decades. They accounted on average for roughly one third of total economic losses and exceeding USD 100 billion every year since 2020, with expectations to surpass USD 200 billion in 2025. Between 2000 and 2023, annual accumulated insured losses for more localised perils such as floods, wildfires, and severe convective storms accounted for 55% of total insured losses on average and are estimated at nearly 50% for 2024 (Figure 1).

FIGURE 1: GLOBAL INSURED AND UNINSURED LOSSES RELATED TO EXTREME WEATHER (1990–2023)



Note: USD inflation adjusted to 2024

Source: Geneva Association, based on data from Swiss Re Institute[1]

1 Swiss Re Institute 2024.

Rising exposure and vulnerability

Socioeconomic choices such as land-use decisions, dated building codes, urbanisation, ageing infrastructure, and inflation are among the key factors driving exposure and vulnerability to extreme weather, exacerbating losses. For example:

- **Land-zoning practices** have traditionally not been risk based, resulting in a rising concentration of people and assets in hazard-prone zones; for example, in Japan, 29%; EU, 17%; US, 12.5% of the population lives in flood-prone regions; and in the EU, 67%; Australia, 61%; US, 60% of the population in wildfire-prone regions. Building in high-risk areas continues; for example, in the US, in 2023, 57% of new homes were built in hurricane- and wildfire-prone regions compared to 39% in 2014. In the UK, 8% of new homes have been built in flood-prone regions since 2013. In Canada, using current zoning policies could lead to an additional 150,000 homes in flood-prone zones and 220,000 in wildfire-prone zones by 2030.
- **Building codes,** while updated around every five years, face cost and resource constraints, among other factors, when it comes to local adoption and enforcement.
- **Destruction of aged infrastructure,** such as dams, roads and energy assets from extreme weather events, could further exacerbate impacts on neighbouring communities and the economy.
- **Inadequate operational maintenance and retrofitting of utilities' assets** could exacerbate extreme-weather impacts.
- **Urbanisation** can lead to soil loss and concreting and the replacement of natural ecosystems such as wetlands, heightening flood risks. Densification and proximity to vegetation (wildland-urban interface) are increasing wildfire risk.
- **High rebuilding costs** are driven by factors such as inflation, supply-chain disruptions, labour shortages, and higher wages, as well as tariffs on building materials. Since COVID-19, on average, the cost of rebuilding has risen 26% in the EU, 40% in the US, and 51% in Canada.

Rising challenges with insurance availability and affordability

Access to insurance is essential for economic growth and resilience, supporting investments and enabling faster recovery for homeowners, businesses, and governments after natural disasters. However, insurance penetration varies by region. Protection gaps, which range from nearly 40% in Australia and North America to 84% Asia and 91% in Africa, are driven by reliance on post-disaster government handouts, as well as low financial literacy, and risk awareness, among other factors.

P&C re/insurers are first in line to help society cope with the financial impacts of extreme weather events. However, years of high insured losses and the growing gap between collected premiums and claims payouts could lead to eroding capital and challenges in maintaining the financial health of the industry. Re/insurers have been promoting the need for risk-based insurance pricing to align premiums with actual risks. This also brings focus to regions and properties where investment in risk-reduction and -prevention measures are needed.

TABLE 1: PREVALENCE OF INSURANCE-AVAILABILITY AND -AFFORDABILITY ISSUES

Availability	Affordability
Rising risks have forced some insurers to limit or cease offering coverage in some parts of the US and Canada, mainly in response to regulatory pressures to cap premiums. ● **US:** Areas of several states, including California, Florida, Arkansas, Colorado, Louisiana, Minnesota, Oklahoma, South Carolina, South Dakota, Texas, Washington ● **Canada:** Quebec and 10% of households across the country with high flood exposure	**Rising premiums have led to affordability concerns.** An increasingly significant portion of household gross income in some regions is spent on annual insurance premiums. ● **US:** Increases between 2020 and 2023: Florida (56%), Louisiana (55%), District of Columbia (51%), Colorado (43%), Utah (42%). ~1–2% of household income in eight hurricane-prone states is spent on homeowners and flood insurance. Actual risk is still underpriced in many states ● **Australia:** ~15% of properties pay 8.3% (1 month) or more of gross yearly household income on annual insurance ● **Europe:** Calls to increase insurance prices to address wildfires

Source: Geneva Association, based on data from various sources[2]

2 Actuaries Institute 2024; Andersson 2024; Campisi and Nici 2024; Flitter 2023; Insurance Bureau of Canada 2021; Joint Economic Committee Democrats 2024; Mac 2023; Mohammed 2024; Financial Times 2023.

Rising risks and the absence of risk mitigation measures have led to challenges with insurance availability and affordability (Table 1). For example, in various states in the US, roughly 15% of insured properties (around 2% of the USD 47 trillion housing market) face insurance availability and/or affordability challenges, while in Australia 15% of properties are under excess affordability pressure, as insurance premiums have risen to around 8.3% (or equivalent of 1 month or more) of gross yearly household income. Re/insurers have been investing significantly in research and development to understand the underpinning causes of risks, developing resilience measures for homeowners, communities and governments, and offering innovative products and services. However, they cannot solve the challenges alone.

Stakeholder actions impact the risk profiles of properties and their localities

The risk profile of a property evolves throughout its lifecycle, shaped by the decisions of homeowners and stakeholders involved in land zoning, permitting, development and construction, valuation and financing, and risk management. Homeowners, communities, governments (local/state, federal/national), developers and contractors, utilities, and government-backed insurance pools, can take actions that impact a property's risk and incentivise investment in local resilience. For example:

- **Homeowners** usually decide to build or buy a property based on quality-of-life and cost-of-living considerations; mandatory hazard-disclosure laws and rising insurance costs are also increasingly impacting their decisions. To invest in retrofits, homeowners require knowledge about a property's risks and appropriate measures to address them, as well as available funding and incentives. Incentives to investing in resilience could include home-damage savings, higher home values, and reduced insurance premiums and mortgage rates.

- **Governments** are critical stakeholders; for example, local government actions are driven by the need to expand the availability of affordable housing and other economic development priorities. They deal with zoning and land management, permitting, building-code enforcement, urban design, and other levels of government in managing disaster risks. Local-government incentives to invest in local resilience could include securing property tax revenue, avoiding litigation, receiving better credit ratings, and improving re-election prospects. National/federal governments coordinate, fund, and support large-scale infrastructure projects that enhance resilience. Reforming post-disaster aid programmes could incentivise local resilience measures by state/local governments.

- **Utilities** could enhance local resilience by proactively monitoring and maintaining their operations. Investing in local resilience allows them to avoid litigation and secure better credit ratings.

- **Government-backed insurance pools** may stabilise markets in the short term, but they generally do not address the root causes of rising risks. They also do not use risk-based pricing, allowing people to live in hazard-prone regions. Promoting and investing in local resilience could improve the financial health of the pools and help keep private insurers in the market.

- **Mortgage lenders** use a property valuation report, prepared by a certified appraiser, which provides an independent assessment of a property's market value and condition and local market trends. It typically reflects the open market value, not the insured replacement cost. Insurance is often required by law and/or by lenders to ensure that borrowers maintain coverage throughout the mortgage term. This aims to transfer property risks (e.g. the cost of rebuilding in case of a disaster) to insurers, leaving lenders with only credit risks. Specifically:

  - Borrowers initially qualify for a mortgage based on their ability to afford the loan payment and insurance costs in the first year of coverage.

  - There are no incentives or mandatory requirements for lenders to assess and factor in property risks in mortgage appraisals or for rate setting. In other words, two borrowers with identical credit conditions and home types could receive the same mortgage, irrespective of the level of extreme weather risk of their respective properties.

  - Lenders set broad requirements for the level of insurance coverage required for a mortgage. Studies show that in the absence of risk-based insurance pricing, lenders lack insight on property risks and related insurance challenges. Furthermore, mandatory hazard-disclosure laws and rising insurance premiums are also increasingly leading to lower values of homes in hazard-prone regions after a disaster.

  - The process for monitoring and verifying borrowers' annual insurance policies vary in different jurisdictions. However, access to data on mortgage defaults linked to insurance challenges could provide significant insight to develop preventive measures.

A two-tier approach is needed to tackle rising risks and incentivise behavioural change to reduce property and local risks.

TABLE 2: A TWO-TIER APPROACH TO SCALING UP RESILIENCE AT THE LOCAL AND PROPERTY LEVELS

	GOAL	STAKEHOLDER	ACTION
Tier 1	Targeted, scaled local resilience measures that are proven to be effective	• Governments • Private re/insurers • Public utilities and infrastructure owners • Homeowners • Neighborhoods and communities	1. Develop a shared understanding of hazards and local risks
			2. Develop solutions for preventing risks in new construction
			3. Focus on the most impactful measures to retrofit existing structures
			4. Redesign post-disaster aid to incentivise ex-ante resilience measures
	Enhanced know-how among key stakeholders and adoption of latest innovations	• Insurance-funded think tanks • Universities and technical colleges offer certification training for: – Home inspectors – Property appraisers – Mortgage lenders – Insurance brokers – Technologists and innovators • Investors in innovation and technology such as governments, philanthropists and venture capitalists	5. Increase the use of resilience guidelines and know-how
			6. Develop and deploy innovative solutions for scaled adoption
Tier 2	Changes to property valuation and mortgage systems, linked with insurance, to impact homeowner decisions	• Certified property valuers • Mortgage lenders • Private re/insurers • Government-backed insurance pools • Government-sponsored enterprises • Real estate community • Insurance and mortgage regulators • Credit rating agencies	1. Include property risks and insured values in mortgage appraisal and monitor borrowers' insurance annually
			2. Strengthen government-insurance industry collaboration to support the implementation of home resilience certification programmes
			3. Enhance insurance industry partnerships to raise awareness and strengthen resilience
			4. Improve government-backed re/insurance pools to promote and support resilience measures
			5. Boost support from insurance and lending regulators for resilience measures
			6. Inclusion of resilience measures in credit ratings

Source: Geneva Association

References

Actuaries Institute. 2024. *Home Insurance Affordability and Home Loans at Risk*.

Andersson, K. 2024. State Farm Quits Another 72,000 California Homes. *Wildfire Today*.

Campisi, N., and Nici, D. 2024. California Homeowners Hit Again as The Hartford Nixes New Insurance Policies. *Forbes*.

Financial Times. 2023. Lloyd's of London: Charging a premium for climate risks.

Flitter, E. 2023. Insurer's Retreat in Florida Signals Crisis with No Easy Fix. *The New York Times*.

Insurance Bureau of Canada. 2021. Canadians Need Flood Protection.

Joint Economic Committee Democrats. 2024. Climate Risks Present a Significant Threat to the U.S. Insurance and Housing Markets.

Mac, R. 2023. Allstate Is No Longer Offering New Policies in California. *New York Times*.

Mohammed, O. 2024. Map Shows 9 States Where Homeowners Are Losing Their Insurance. *Newsweek*.

Swiss Re Institute. 2024. *Natural Catastrophes in 2023: Gearing up for today's and tomorrow's weather risks*.