

CLIMATE INSURANCE PROTECTION GAPS



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Developing resilience together

Europe has warmed by approximately 2.4°C since pre-industrial levels and is the fastest warming continent on the planet. Apart from the societal damage, such as water shortages and loss of life, climate change is having an impact on the economy. In Europe, the economic damage of weather and climate related events was estimated to be €214 billion from 2021 to 2024.

In Ireland, we have also seen an increase in the economic damage caused by climate change. Storm Éowyn of January 2025 resulted in insurance claims of more than €301 million, making it the most expensive storm-related insurance event in Irish history. This storm season, Storm Amy and Storm Bram had caused widespread power outages and travel disruption, and Storm Chandra caused extensive flooding due to heavier than average rainfall in the preceding weeks.

As extreme weather events are intensifying and growing in frequency, policymakers are rightfully reviewing

policy approaches. There are many options, ranging from full liability for climate risks taken on by government (causing the burden to fall on the taxpayer); to shifting the burden onto the insurance market (with the burden falling on the policyholders, but this can also lead to innovative insurance products); or attempting to strike a balance that works best for the country and its residents. Lessons can also be learnt from other member States' experiences.

In making such consideration, governments should acknowledge that the costs of climate risks not only lie in the preventative investments and the direct costs of the economic damage but also include its knock-on effects. Climate change is a risk multiplier that can exacerbate existing risks and crises. For example, a drought can lead to water and food insecurity, the spread of diseases, and threats to financial stability. A slow payout of a flood insurance claim will also have the cascading risk of businesses having to close their doors and employees losing their jobs.

Without action, the costs of such economic damage will only increase. Therefore, it is important that precautionary and preventative measures are taken by all to avoid climate damage from occurring. This is also in line with the general international consensus that climate impacts will increase and we should focus on building resilience by design. In this regard, enhancing the process for considering climate risks in planning decisions has a role to play.

A Gamma Risk (2025) report showed that from 2020 to 2025, approximately 4.25% of new addresses are in areas prone to extreme coastal flooding. Even though the national planning guidelines discourage the development of new houses in flood-prone areas, the pressure to increase the supply of housing has meant that houses continued to be developed in these areas. Ireland is certainly not the only country that faces such dilemmas, but it is important to keep such considerations in mind when developing policy.

As the frequency and severity of climate-related events grow, (re) insurance premiums are expected to rise. Climate change also increases the unpredictability of these events, which may prompt insurers to stop offering

catastrophe insurance in high-risk areas. If insurers are restricted from doing so, this will lead them to withdraw from certain markets altogether, thereby possibly widening the climate insurance protection gap. At the same time, low risk awareness and reliance on government aid further dampen insurance uptake.

The climate insurance protection gap is a matter that cannot be solved by the government alone. It requires a whole-of-society approach to enhance resilience. Whereas national governments can focus on delivering resilience in the form of flood defences and local governments can focus on the protection of their municipalities, insurance companies also have a role to play in increasing resilience by offering innovative insurance products. For example, they could offer reduced premiums to policyholders that have implemented resilience measures in their homes. This would benefit the insurance company, in terms of a decreased risk of damage, but would also have positive cascading effects into other sectors, such as towards the construction companies that implement resilience measures.

The climate insurance protection gap requires a whole-of-society approach to enhance resilience.

Insurance companies, local authorities, national governments, and other stakeholders must collaborate to create a system that works best for their country or market. In this context, there may well be a role for greater coordination at a European level and at the very least ensuring that we learn from one another and share best practices. However, we also need to acknowledge potential solutions in one member State may not be applicable in another. In Ireland we are focusing efforts on increasing the availability and affordability of flood insurance that specifically address the nature of the flood protection gap in Ireland.



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The French Nat Cat system: balancing between solidarity and resilience

France's Natural Catastrophe Insurance Scheme (Nat Cat) stands as one of Europe's most developed public-private insurance frameworks for natural disasters. Since its creation in 1982, the system has provided broad protection to policyholders, efficient risk pooling and financial stability. Yet, as the European Climate Risk Assessment projects steeply rising loss trajectories, is the French Nat Cat model efficient enough? What reforms are needed at both the domestic and European levels?

France created a public-private partnership that provides mandatory insurance coverage for all property damage policyholders against exceptional natural hazards, such as floods, cyclones, droughts or mudslides. The system is based on three core principles: solidarity (risks are shared across policyholders), responsibility (covering only exceptional events, assessed by specific parameters) and

equity (uniform criteria for disasters' recognition). It operates in two layers: insurers provide insurance compensation and they can benefit from risk sharing with a State-owned company, the Caisse Centrale de Réassurance (CCR) that is covered by an unlimited State guarantee. This public backstop has only been called once in 1999 proving the ability of the current model to provide stability and avoid market disruption.

As the frequency and intensity of natural catastrophes are rising with climate change, the relevance of the system today is clear, but adaptation will also be needed to maintain full relevance tomorrow.

According to the report entitled "Adapting the French insurance system to the evolution of climate risks" (2024), climate change will lead to a rise in claims by 2050 and beyond, threatening the financial sustainability of the scheme as it is today.

The French Government has already taken steps to improve the financial viability of the scheme, such as raising the natural disaster premium surcharge from 12 to 20% in all the property damage contacts. Another specificity of the French system lies in the exposure to clay shrinkage and swelling, which is also covered by the system. Numerous legislations have been adopted from 2022 to 2024 in order to enhance victim compensation and improve expert independence from insurance companies and harmonize practices.

Thus, even though the system would resist massive shocks in the upcoming years, adapting the insurance system to the physical risks of climate change must be a priority for the next decades. Three areas could be improved at the national level and inspire fellow member States.

**The relevance of the
system today is clear,
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also be needed.**

First, it is crucial to enhance transparency and engagement of all stakeholders (i.e., insurers, reinsurers, local officials, victims' associations, companies' representatives, experts and scientists). To guarantee the system is fit for purpose in the future, a national consultative committee will be convened in 2026 to foster dialogue between all players. This committee will discuss the current parameters

of the system and collect feedback on recommended evolutions.

Second, maintaining universal insurance coverage is key. The Government launched an Observatory of insurability in 2024 to monitor data on insurers' presence across the nation's territory, especially in more climate-vulnerable locations such as coastal territories, to make sure that risk pooling is maintained.

Third, risk prevention must be strengthened as it reduces the overall charge upon the system. It can be implemented at the collective level as well as the individual level. The funding of preventive measures needs to be better reflected in deductible fees and insurance premiums to create appropriate incentives.

Regarding European perspectives, implementing domestic schemes that meet common minimum standards should be the priority before considering any public structure or risk sharing at the European level. We call for stronger coordination among Member States to share best practices to improve schemes. We also promote active prevention policies that would incorporate the principle of upstream efficiency assessment.

In a nutshell, the French Nat Cat has long served as a model for balancing solidarity and financial stability against natural disasters. The rise of these events in frequency and intensity requires a proactive stance from all players. The actions outlined – enhancing transparency, ensuring universal coverage, prioritizing risk prevention and building effective cooperation between Member States – would be key to build climate resilience. They would not only help us to face natural disasters in the future across Europe, but reduce their overall impacts.



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Climate Insurance Protection Gaps: A demand-side challenge

According to the EIOPA Dashboard on Insurance Protection Gap¹, only around one quarter of losses from extreme events in Europe were insured between 1980 and 2024. With climate change intensifying heatwaves, floods, storms, and wildfires, citizens face growing exposure to physical climate risks. As a result, many are likely to face higher insurance premia in the coming years or bear a larger share of disaster-related costs themselves. The German Insurance Association recently warned that property insurance premia could double within a decade due to climate-driven claims². In high-risk areas, insurance (and in turn, mortgages) may even become unavailable as insurers withdraw coverage or introduce exclusions as risks escalate.

Yet, despite rising risks, insurance uptake remains low. EIOPA's 2025 Eurobarometer³ reveals only 17% of respondents hold coverage for property damage caused by natural catastrophes. To better understand these persistently low take-up rates, EIOPA conducted research into household behaviour and attitudes toward natural catastrophe

insurance⁴. Findings are consistent across Member States:

- Consumers perceive coverage as too expensive or unaffordable.
- Limited transparency on costs and coverage scope discourage engagement.
- Expectations of state compensation after disasters further reduce incentives to purchase private insurance.

In response to these behavioural and informational barriers, EIOPA has launched targeted initiatives to improve awareness on both risks and coverage, in line with the EU Climate Resilience Framework⁵. In December 2025, EIOPA proposed the development of PROTECT – a tool to help citizens better understand the potential impacts of climate change on their properties⁶.

EIOPA also examined the clarity of product information. In May 2025, it published a study assessing Insurance Product Information Documents used for natural catastrophe coverage across EU markets⁷. The key concern is the “insurance illusion” – a situation where consumers believe they are protected, only to find gaps or exclusions post-loss. The study calls for more intuitive, consumer-friendly information that supports genuine understanding rather than merely fulfilling regulatory requirements.

**Consumer awareness
and coverage clarity are
key to closing Europe's
insurance protection gap.**

EIOPA also acknowledges the need to continue deploying harmonised, forward-looking tools and indicators for EU-wide climate risk assessments. Establishing an EU Observatory on Insurability could improve the systematic monitoring of insurance coverage gaps and loss ratios by peril and region, further develop resilience investment adequacy metrics (comparing adaptation investment levels to estimated needs), and integrate early-warning indicators from cross-sectoral systemic resilience assessments⁸. The Observatory could build on EIOPA's work. In addition, supervisors should use indicators that track access to insurance (and mortgages) and identify potential consumer detriment. In this context, EIOPA developed a set of retail risk indicators⁹ that could be applied specifically to insurance products covering natural catastrophe.

European coordination can also enhance the climate insurance landscape through robust frameworks to address shared challenges. On the supply-side, exploring shared reinsurance layers for catastrophic tail risks, such as the one proposed by EIOPA alongside the European Central Bank¹⁰, could add value where events exceed national capacities, provided such arrangements are carefully designed to avoid moral hazard and preserve market functioning. On the demand-side, the establishment of common harmonised coverage definitions is key to enable better comparability for consumers, facilitating informed decision-making and transparency across the EU. Together, these forms of cooperation would strengthen the economic resilience, affordability and availability of insurance protection across Europe, while supporting a more forward-looking understanding of climate risks.

1. *Dashboard on insurance protection gap for natural catastrophes - European Insurance and Occupational Pensions Authority*
2. *Klimaschäden könnten zu Verdoppelung der Prämien in der Wohngebäudeversicherung führen*
3. *EIOPA- Eurobarometer 2025: consumer trends in insurance and pension services*
4. *EIOPA - Revised Staff Paper on Measures to address demand-side aspects of the NatCat protection gap*
5. *European Commission - European Climate Resilience and Risk Management – Integrated Framework*
6. *EIOPA - PROTECT – a risk and prevention awareness tool for natural catastrophe risks and prevention measures*
7. *EIOPA - Clearer and more consumer-friendly information is needed to prevent the 'illusion of being insured' for natural catastrophe coverage, EIOPA study finds*
8. *Financing resilience: Reflection group presents final report on mobilising financing to help EU prepare for climate risks - Climate Action.*
9. *EIOPA - Retail risk indicators: methodology update*
10. *EIOPA and ECB propose European approach to reduce economic impact of natural catastrophes*



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Keeping Europe insurable and inhabitable

Today, we face an urgent need for stronger climate adaptation and more effective prevention measures to tackle increasing damages caused by natural disasters – to keep Europe both insurable and ultimately inhabitable. While natural disasters in North America and Asia, as the wildfires in California (2025), or the earthquakes in Turkey/Syria (2023), have received substantial media attention, the continent heating up fastest on earth is actually Europe: Annual economic losses from natural disasters have increased by more than five times to an average of ~€45 bn between 2020 to 2023, making Europe a worldwide “climate hotspot”.

The increase in frequency and severity of losses from natural catastrophes (NatCat) is a core focus for insurers. At Allianz, we have established and continuously work on excellence in NatCat risk understanding and management, acting as a driver of resilience and leader in prevention:

Our free-of-charge online risk assessment tool provides valuable information on the residential climate risks well as practical options for effective prevention and increasing resilience - based on simply your home address.

By actively informing our customers with targeted warning messages when

storms or hail are threatening locally, we help them to be better prepared and secure their belongings.

We advocate for and support climate-resilient reconstruction of affected buildings after a damage event, by contributing to additional costs and advising on home resilience improvements.

In parallel, we constantly work on further improving the quality of our risk models to better understand and predict risks and be able to calculate risk-adequate insurance premiums.

However, increasing awareness and supporting prevention and resilience at customer level will not be enough to keep insurance affordable and viable for all. Public authorities, corporates and society at large must work together with insurers to pro-actively tackle and manage the increasing impact of natural disasters. This is our only option to effectively **reduce** risks, related costs and the hardships posed by NatCat events; any mere **redistribution** of risks and costs will soon become unaffordable and hence unsustainable.

There are great real-life examples showcasing the impressive business case of prevention, such as the Thames Barrier in London:

This retractable storm surge barrier at the entrance of the Thames was built in 1982 to protect Greater London from exceptionally high tides and storm surges; it would cost around 2.4 billion British pounds at today's prices. For a single large storm surge, the barrier prevents the flooding of more than 100 square km of land that would put hospitals, power stations and the London Underground out of action, with an estimated prevented damage of around 50 billion British pounds – per event!

Why risk-wise prevention and resilience is our only sustainable option – and the cheapest.

This also shows why the public sector should create the right conditions to make these kind of projects investable for the private sector for the benefit of society at large.

Similar projects exist across the EU, but in many cases, progress has been extremely slow. In Germany, the National Flood Protection Program of 2013 provides legal foundations for

infrastructure projects similar to the Thames Barrier. However, after more than a decade, only five percent of planned infrastructure projects are completed, with just another 16 percent in planning or construction. At this speed, Germany will still not be finished in 100 years – but climate change doesn't wait.

Investments into prevention and resilience are one of the best business cases available to governments right now, with every Euro invested avoiding damages worth four to ten Euros – not just once, but for every large NatCat event. Allianz is working with governments to provide expertise, data and insights into the decision-making process of public infrastructure investment for protection.

To further reduce the insurance protection gap, protection against NatCat risk should be offered automatically in building insurance. Premiums should always be risk-based to prevent perverse incentives (i.e. building new homes in high-risk zones) and make investments into prevention and resilience viable for individual home owners as well as state actors.

Regulatory and legal frameworks are crucial for narrowing the protection gap and maintaining affordable insurance. Updates to building codes and land use planning are essential for climate adaptation. Construction in high-risk zones should legally be prohibited, and existing buildings should be retro-fitted with proven prevention measures (e.g. flood walls).

Nothing is as expensive and unsustainable as doing nothing or not enough – which is why all parties – the state, the insured, and of course us insurers – must work together to reduce future damages and adapt to the impact of climate change, to keep insurance affordable and Europe inhabitable.



FRANCESCA MONTI

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Modelling, prevention, and partnerships: insuring Europe's climate risks

Across Europe, climate related impacts already erode between 0.2% and 0.4% of GDP, signaling a mounting economic strain (EC Joint Research Center). Globally, natural disasters caused an estimated USD 220 billion in economic losses in 2025, with 51% uninsured — a widening protection gap that leaves societies increasingly exposed (Swiss Re 2025).

Building climate resilience is thus an economic necessity, not an option.

In this context, insurers are blending science, prevention and partnerships to reduce climate risks and adequately pricing them.

Generali's Climate Hub (a Group-wide center of excellence specialized in climate risk management) embraces this challenge through three levers: technical excellence, prevention at scale, and mission-driven collaboration.

Technical excellence: modelling, data and risk accumulation

By integrating third-party catastrophe models with internal machine-learning

models trained on historical losses, weather variables and building features, we merge scientific insight with insurer experience, improving occurrence and severity estimates across perils.

Risk-accumulation monitoring is also essential: it quantifies diversification, identifies accumulation zones and highlights where the portfolio can still absorb growth. This insight guides responsible expansion and supports risk-based pricing that signals where prevention efforts are most effective.

EU-level coordination on high-resolution weather data, building attributes and harmonized risk taxonomies strengthens both modelling and accumulation analysis, ensuring exposures are priced consistently across borders and sectors.

Prevention as a pre-condition for long-term insurability

Prevention is what keeps protection both affordable and consistently available. Investing in measures like resilient infrastructure, early-warning systems, and smarter land-use planning helps limit the high costs of future extreme weather. At the same time, it ensures that essential services and resources stay accessible and functioning, even as climate risks continue to grow.

As an insurer, we bring prevention to life across the entire value chain—through awareness, diagnostics, mitigation planning, and follow-up. We are investing in standardizing climate-risk assessments across markets, while adapting actions to local conditions (shaped, among other factors, by regulatory frameworks and quality and accessibility of reliable data).

Modelling, prevention and partnerships power a coherent climate-resilience strategy.

Large-scale impact requires insurers' incentives (such as premium discounts for customers who adopt mitigation measures or preferential coverage conditions for climate-resilient buildings) to be paired with public funding or fiscal support.

To avoid ill-designed incentives, prevention must reinforce—not replace—risk-based pricing: public support should co-finance adaptation while

maintaining risk signals, to ensure that households and businesses do not delay the uptake of prevention by expecting compensation.

EU mechanisms that shift funding from ex-post relief to ex-ante investment, including support for Public-Private Partnerships and fiscal incentives (e.g. credits or rebates for households and SMEs that invest in certified resilience upgrades or co-funding or tax-efficient financing for municipalities), enable prevention at scale and maintain social cohesion. These measures align well with the upcoming EU climate-resilience framework, which is welcome because it provides common standards and predictable rules that coordinate public-private efforts and channel resources toward interventions with proven impact.

Collaborations and partnerships for structural impact

Generali is building an open ecosystem with academia, public entities and industry peers.

Copernicus/ European Centre for Medium-Range Weather Forecasts (ECMWF) data underpins our modelling, illustrating the value of open collaboration. Partnerships with universities and research entities accelerate machine learning-based peril modelling and vulnerability mapping, while public-private programmes enhance early-warning systems and community-level adaptation.

Shared standards for data, methods and validation enable insights to travel as fast as hazards and support fair, cohesive risk-based pricing across Member States.

Conclusion

Modelling, prevention and partnerships power a coherent climate-resilience strategy; modelling clarifies risk, prevention manages it; and partnerships scale solutions across borders.

When coupled with EU-level coordination and targeted social support, these levers ensure that insurance remains both sustainable and accessible as climate risks intensify.