



Natural catastrophe risk management in Greece: lessons for the European insurance market

Natural catastrophe (NatCat) risk has emerged as a major challenge for the European insurance industry. While countries such as Germany, France, and Italy often dominate discussions on climate-related losses, Greece offers a particularly valuable case study. Although it represents a relatively small insurance market, Greece is widely considered one of the most hazard-exposed countries in Europe. Its unique combination of high seismic activity, increasingly frequent weather-related events, and relatively low insurance penetration provides important lessons for insurers, regulators, and policymakers across the continent.

GREECE'S NATCAT PROFILE

Unlike many European markets, where climate-related perils are the primary concern, Greek insurers have traditionally managed a broad spectrum of natural catastrophe risks. Greece faces the highest seismic risk in Europe due to its location at the convergence of major tectonic plates. As a result, earthquake risk has historically been a key driver of underwriting decisions, catastrophe modelling practices, and reinsurance strategies across the Greek insurance market.

At the same time, climate change appears to be contributing to an increase in the frequency and severity of weather-related catastrophes. Severe floods, prolonged heatwaves, wildfires, hailstorms and windstorms have become increasingly common over the past decade. Events such as Storm Daniel in 2023, one of the most destructive flood events ever recorded in Greece, highlighted that climate-related catastrophes may generate losses comparable to those associated with major earthquake events in affected regions. This was further illustrated by the severe wildfires that affected areas near Athens and other parts of Greece during the summer of 2026, underscoring the growing materiality of wildfire risk within the country's natural catastrophe profile.

For Greek insurers, NatCat risk is therefore no longer limited to earthquakes alone. Instead, effective risk management increasingly requires consideration of both traditional geological hazards and evolving climate-related risks.

REINSURANCE AS THE PRIMARY RISK MANAGEMENT TOOL

One of the notable characteristics of the Greek insurance market is its relatively strong reliance on reinsurance. Given the potentially catastrophic impact of both earthquake and weather-related events, insurers cede a significant portion of their NatCat exposure to global reinsurers. Most companies purchase comprehensive catastrophe excess-of-loss programmes covering multiple natural perils. Reinsurance limits are typically structured to withstand events with return periods extending well beyond regulatory requirements, while programme design is informed by sophisticated catastrophe models and internal risk appetite frameworks.

The annual reinsurance renewal process has become increasingly complex as global reinsurers reassess climate-related risks and capital allocation. Reinsurance pricing has generally increased in recent years, reflecting both elevated catastrophe losses worldwide and growing uncertainty surrounding secondary perils such as flooding and wildfire.

DATA QUALITY AS A COMPETITIVE ADVANTAGE

The quality of exposure data has become an increasingly important element of NatCat risk management. Greek insurers have invested substantially in improving the accuracy of insured location data, building characteristics, occupancy information, construction details, and replacement values. Enhanced data quality can improve



catastrophe model outputs, reduce uncertainty, and strengthen insurers' positions during reinsurance negotiations.

Digital transformation has further expanded insurers' analytical capabilities. Meteorological hazard data, demographic and socio-economic indicators, historical claims experience, and exposure information at postal-code level increasingly support both underwriting decisions and post-event claims management. Following major catastrophes, rapid exposure identification can allow insurers to estimate losses more accurately and respond more efficiently than was previously possible.

REGULATION AND SOLVENCY STRENGTHEN RESILIENCE

The implementation of Solvency II appears to have contributed to stronger NatCat risk management practices across the Greek insurance sector. Insurers are required to quantify catastrophe exposures, conduct stress testing, perform Own Risk and Solvency Assessments (ORSA) and demonstrate adequate capital to withstand severe but plausible catastrophe scenarios.

These requirements have encouraged the adoption of more sophisticated enterprise risk management frameworks and deeper integration between underwriting, actuarial, finance, and reinsurance functions. At the same time, the growing use of climate scenario analysis is reshaping strategic planning. Rather than relying solely on historical experience, insurers increasingly assess how changes in hazard frequency, urban development patterns, and socio-economic conditions may influence future portfolio performance.

This shift reflects a broader move from reactive catastrophe management towards a more forward-looking approach focused on climate resilience and long-term risk sustainability.

ADDRESSING THE INSURANCE PROTECTION GAP

Despite these advances, Greece continues to exhibit a relatively large insurance protection gap compared with many European markets. A substantial proportion of residential properties remain uninsured against natural catastrophes. Many households continue to rely on post-disaster government assistance, which is often limited in scope and insufficient to fully compensate economic losses.

According to the Hellenic Association of Insurance Companies¹, at the end of 2024, only approximately 19% of the country's housing stock

was insured. Furthermore, only 62.2% of insured homes included both weather-related and earthquake coverage, implying that just around 12% of all homes in Greece were protected against both major categories of NatCat risk.

The situation among businesses and industrial properties is also characterized by significant underinsurance. Historical estimates suggest that approximately 40% of businesses maintained some form of insurance coverage, although this figure should not be interpreted as specifically reflecting NatCat or industrial property insurance penetration. EIOPA estimates that less than 5% of natural catastrophe losses in Greece have been insured since 1980².

This protection gap is particularly relevant for perils such as earthquakes and wildfires, which have the potential to generate substantial economic losses. However, the government's decision to introduce mandatory NatCat insurance coverage for businesses with annual revenues exceeding €500,000, effective from June 2025, is intended to increase insurance penetration among larger commercial and industrial risks. While no published data are currently available to quantify its impact, the measure is expected to contribute to narrowing Greece's overall NatCat protection gap and strengthening economic resilience.

FROM CATASTROPHE MODELS TO LOCAL CLIMATE INTELLIGENCE

While commercial catastrophe models remain an essential component of NatCat risk management, some Greek insurers are increasingly complementing them with locally developed analytics tailored to the country's unique hazard profile.

A notable example is project YANTAS, developed in collaboration with the National Observatory of Athens and specialist geospatial research partners. The initiative was designed to assess and map vulnerability to severe weather events across Greece by combining meteorological observations, geospatial data, historical insured losses, and demographic and environmental characteristics at postal-code level.

Rather than relying solely on historical claims data or broad regional classifications, YANTAS is designed to help insurers identify local concentrations of flood and severe weather risk with greater precision. These insights support underwriting decisions, accumulation management, portfolio steering, and pricing strategies.

Initiatives such as YANTAS illustrate how insurers are increasingly complementing traditional catastrophe modelling with more sophisticated forms of climate intelligence. By integrating scientific research with advanced insurance analytics, insurers may improve risk selection, strengthen portfolio resilience, and provide a practical example of how local innovation can contribute to climate adaptation within the insurance industry.

CONCLUSION

The Greek case illustrates that natural catastrophe risk management is evolving towards a broader and more integrated framework. While reinsurance, improved data quality, regulatory discipline and more granular climate analytics appear to have strengthened insurers' resilience, the protection gap remains a key concern. For the wider European insurance market, Greece provides a relevant example of how long-term resilience depends not only on risk transfer, but also on deeper risk understanding and broader insurance coverage. ■

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1 – <https://www.eaee.gr/category/deltia-typou/>
2 – https://www.eiopa.europa.eu/natcat-reality-check-2026-06-10_en