

FUTURE OF LAND AND HOUSING



Climate Change, Housing, and Homeowners Insurance in Hawaii: Lessons for California

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Climate change is reshaping housing across the United States, and Hawaii is uniquely vulnerable with its island geography, high housing costs, and heavy exposure to climate-related natural hazards. Rapidly growing threats such as wildfires, sea-level rise, and flooding are destabilizing the state's already expensive housing and homeowners insurance markets. This has led to a "climate penalty" that devalues at-risk properties, while soaring premiums and loss of coverage have created a severe affordability and availability crisis, particularly for condominium associations. The State of Hawaii has enacted policies increasing transparency through on mandatory climate risk disclosures in real estate and

has reactivated state-level mechanisms like the Hawaii Hurricane Relief Fund to provide a critical backstop for the insurance market.

These dynamics hold direct lessons for California, where a far larger housing market faces overlapping climate risks. The recent withdrawal of major insurance providers in California has destabilized local markets and intensified statewide debate around affordability, coverage availability, and the appropriate role of public insurance. This brief highlights how climate change is transforming housing and home insurance markets in Hawaii—and what policymakers in California and other states

might learn from the state's responses and adaptive strategies.

Primary Hazard Risks

Hawaii faces multiple <u>climate change and disaster-related threats</u>, including <u>drought and wildfire</u>, <u>extreme rainfall</u>, <u>hurricanes</u>, <u>sea-level rise</u>, <u>and seismic activity</u>. These risks further strain an already limited and expensive housing market. Below are brief descriptions of the impacts of each risk and how they manifest as a risk to housing and insurance markets.

Drought and Wildfire

Over the past 20 years, <u>Hawaii has consistently experienced below-average rainfall</u>. For example, from 2010 to 2019, Hawaii experienced a record low amount of rainfall over any 10-year period in its recorded history. More generally, climate change has increased drought frequency and intensity and, in turn, the risk of wildfire, <u>which has increased in annual area by 400 percent since the 1960s</u>; the rapid spread of fire-prone invasive grass species has also contributed to heightened fire risk across the state. The 2023 Maui fires in the town of Lahaina, which killed more than 100 people and caused more than <u>\$5 billion in damage</u>, demonstrate the severity of this risk.

Extreme Rainfall

While there is a clear pattern of drought statewide, there are many pockets that receive large volumes of rainfall over short periods of time, such as the windward sides of the major islands. For example, in **April 2018, a storm dropped nearly 50 inches of rain on Kauai in 24 hours**, flooding over 500 homes and causing an estimated \$180 million in damage. Given Hawaii's mountainous terrain, these downpours dramatically increase the risk of flash flooding, landslides, and severe soil erosion.

Hurricanes

Although direct hurricane landfalls are historically **rare**, climate change is increasing this threat.

Warmer sea surface temperatures provide greater energy for storms, and shifting storm tracks are projected to increase the frequency of tropical cyclones passing near the islands. Since 1950, 25 hurricanes have passed within 200 miles of Hawaii, with only two making landfall. However, the impact can be severe: **Hurricane Iniki**, which struck Kauai in 1992, caused more than \$2.3 billion in damage (equivalent to more than \$5 billion today).

Sea-Level Rise

As an island state, Hawaii faces a severe threat from sea-level rise, with properties in low-lying areas becoming uninsurable or prohibitively expensive to protect. Since 1960, sea level has risen between two and eight inches along Hawaii's shores. The National Oceanic and Atmospheric Administration (NOAA) projects that Hawaii can expect an additional one foot of sea-level rise by 2050, with projections soaring to nearly four feet by 2100. This will greatly increase chronic coastal erosion and create a "launching pad" for storm surges and tsunamis, amplifying their destructive power and allowing ocean water to penetrate further inland.

Volcanic Eruptions and Seismic Activity

Hawaii faces an additional, non-climatic threat from lava flows, eruptions, and earthquakes. This risk is most acute on the Big Island, where designated <u>lava flow hazard zones map</u> out the areas of highest probability for impact. The 2018 Kīlauea eruption provides a stark example of the potential devastation, <u>destroying nearly 2,000 structures</u>, <u>including 700 homes</u>. Because standard insurance policies do not cover volcanic or earthquake damage, property owners in high-risk zones must seek separate, often expensive coverage, if it is available at all.

Homeowners Insurance in Hawaii

A homeowner's insurance policy in Hawaii typically includes the standard package of coverages: dwelling, personal property, and liability. Yet <u>the state's unique exposure to multiple natural hazards fundamentally reshapes its market</u>. For most homeowners, a standard policy is merely the baseline,

and residents often purchase additional, specialized policies for adequate coverage against hurricanes, flooding, earthquakes, and volcanic activity. This creates a complex and expensive insurance environment in which private insurers may be unwilling to offer coverage in the highest-risk areas, such as certain lava or coastal erosion zones.

To address coverage gaps, Hawaii established the Hawaii Property Insurance Association (HPIA). Functioning as the state's fair action to insurance requirements (FAIR) plan (i.e., the "insurer of last resort"), HPIA is a state-mandated, nonprofit organization that provides essential—though often limited and more expensive—property insurance to homeowners denied coverage by the private market. While HPIA provides a **crucial safety net, it is not a subsidized entity**. Its premiums are designed to be among the highest in the state to encourage homeowners to seek private insurance first. For the most vulnerable homeowners, then, the only available option is often the most expensive.

Vulnerabilities in Housing and Homeowners Insurance

Climate shocks are further straining the housing market and altering property values, with some rising due to shortages and others decreasing due to exposure to natural hazards. In general, climate and disaster risk have also made insurance more expensive and difficult to access.

Climate Risk Discounts

A recent **study** found that Hawaii homes in areas susceptible to chronic flooding and erosion experience a "climate penalty" in their valuation. The report identifies a 9–14 percent decline in value for residential properties located in areas at risk of flooding and erosion as compared to similar, unexposed properties. According to a **separate study** from the University of Hawaii Economic Research Organization (UHERO), properties in Hawaii exposed to the impacts of sea-level rise are already experiencing slower price appreciation compared to less vulnerable inland properties. These

findings suggest that buyers and investors are beginning to factor long-term climate risks into their purchasing decisions. It is notable that both studies were published before the Lahaina fires and also before legislation that mandates disclosure of some climate-related hazards (i.e., SB 474), all of which further elevate climate concerns into purchasing decisions. One could reasonably expect that risk disclosure and the shock of the 2023 Maui fire to further drive devaluation.

"Safe Havens" Becoming More Expensive

The market is not merely 'punishing' vulnerable homes with decreased values. Properties and land that are less exposed to risk or have been made to be more resilient are becoming increasingly valuable. The UHERO study mentioned above also demonstrates that homes near the coast, yet at a higher (i.e., safer) experienced a roughly 1 percent elevation. year-over-year appreciation compared to similar properties at lower elevations. This finding demonstrates that demand for coastal living remains strong, but that buyers are willing to pay a premium for safer properties with less risk of sea-level rise. Though a logical response, this trend also highlights the risk of 'climate gentrification,' whereby buyers with easier or cheaper access to capital are able to purchase homes in areas less prone to disasters, or are able to afford repairs following a disaster.

Rising Premiums and Reduced Coverage

Insurers are responding to climate-related and natural disaster threats by dramatically raising premiums and deductibles, especially in at-risk locations. In Hawaii, single-family homeowners are facing premium hikes ranging from 30 percent to over 100 percent, which, for a median-priced home, can translate into increases of up to \$6,000 per year, depending on location and risk profile. Furthermore, in areas highly vulnerable to wildfires and coastal flooding, private insurers are increasingly choosing not to renew policies, leaving property owners with limited and expensive options such as HPIA.

The insurance crisis is particularly severe in Hawaii's condominium market. According to 2024 legislative testimony, between 375 and 390 condominium buildings in Hawaii were underinsured for hurricane risk. Faced with premium increases as high as 1,000 percent, many condo boards are being forced to underinsure their properties. Securing full coverage has become extremely difficult and costly, with premium hikes being passed directly to residents through higher association fees, in turn threatening housing affordability. Underscoring the crisis, major buyers on the secondary mortgage market, like Fannie Mae and Freddie Mac, will not purchase loans for units in buildings that are not insured to their full replacement value. This effectively freezes the mortgage market for those properties and makes it impossible for owners to sell or refinance.

Policy Responses

Hawaii has taken steps to address its challenges related to property values, housing affordability, and insurance access. Table 1 below provides examples of specific laws, policies, and regulations that are designed to address climate change and resilience as it relates to housing and homeowners insurance. Overall, Hawaii's approach is characterized by mandated planning documents, the establishment of advisory bodies, and legislation aimed at increasing transparency related to climatic and disaster-related risks.

Lessons for California

While specific hazards differ, the underlying dynamics of market failure, insurance retreat, and the threat to housing stability are incredibly similar in California and Hawaii. California can draw several key lessons to proactively address its own escalating crisis.

Mandate Actionable Transparency at the Property Level That Connects Climate Change and Property Insurance Statutes

Hawaii has multiple laws targeting transparency in real estate and insurance transactions (see Table 1).

Additionally, the mandated creation of a statewide sea-level rise vulnerability report required counties to use this data in their planning. This established a government-validated, standardized source for climate risk that can be used in conjunction with relevant insurance and property laws and statutes. While California's primary hazard—wildfire—is in many respects more complicated and less predictable than sea-level rise, steps to inform insurance markets with the best available science on risk are essential to lessen information asymmetries and identify risk mitigation measures that could in turn lower exposure for statewide insurers.

Be Aware of the Risks of Climate Gentrification

Hawaii reveals a clear "resilience premium" for safe properties and a "climate penalty" for vulnerable homes. While Hawaii's policies have rightfully focused on assessing and understanding risk, these dynamics create a new pressure on the existing housing affordability crisis; California faces a near-identical problem set. There are three notable pathways for climate gentrification: (1) investors target safer areas; (2) climate impacts raise the cost of living to a point where homes are only affordable to wealthy households; and (3) upgrades make a community more resilient, leading to greater demand and more expensive housing. There are numerous means to account for these risks that state and municipal governments can take, including community-led planning, providing incentives for developers to maintain or increase available affordable housing in safer areas, and, as was done in Hawaii after the 2023 fires, developing community land trusts or nonprofits that hold and manage land and property to ensure long-term housing affordability.

Actively Foster Alternative Insurance Models for the HOA Market

The knock-on effects of Hawaii's condominium crisis offer an important, cautionary tale. The State of California should immediately review its own regulations to determine how it can facilitate the creation of alternative risk-transfer mechanisms. Solutions could include streamlining the formation of

captive insurers for homeowners associations (i.e., an insurance company owned by the HOA itself), authorizing community-based risk pools, or developing a state-backed reinsurance program that specifically supports master policies for multi-family dwellings. Hawaii's actions show that when the market fails, the state's role can evolve from a simple backstop to an active facilitator of innovative solutions.

Conclusion

Hawaii's experience demonstrates that climate change is rapidly destabilizing both housing and homeowners insurance markets. For California and other states at risk of wildfire, sea-level rise, flooding, and other natural hazards, Hawaii shows that proactive measures are necessary to mitigate housing unaffordability and financial instability. By learning from other responses, states can better protect both their most vulnerable communities and their housing from the cascading climate risks ahead.

Table 1 | Recent Policy Interventions in Hawaii

Purpose
Expands the powers of the Hawaii Property Insurance Association and reactivates the Hawaii Hurricane Relief Fund to stabilize the state's property insurance market against growing disaster risks. It creates financing and loan reserve programs to help condominium associations address critical repairs and deferred maintenance, improving resilience to climate-driven events. The measure also directs the state's Insurance Commissioner to study long-term solutions for stabilizing the market and requires regular reports to the state legislature.
Formed in 1993 in response to the devastation caused by Hurricane Iniki, the HHRF was established to address the gap in property insurance coverage created when many private insurers withdrew from the hurricane insurance market. In 2024, Governor Josh Green reactivated the HHRF to address the growing instability in the property insurance market caused by major climate events, rapidly rising premiums, and a decrease in available insurers, which created significant barriers to obtaining coverage for many condominium associations.
Requires that sellers of real estate located in areas at risk of sealevel rise disclose this information to potential buyers. Hawaii law already designated certain flood vulnerabilities as "material facts" that require seller disclosure—for example, where real property lies within certain flood hazard zones or tsunami inundation areas. Of note, a comparable bill, Act 178, deals with public- and state-owned facilities.
Establishes an interagency climate adaptation committee to develop a sea-level rise vulnerability and adaptation report addressing statewide climate impacts projected up to 2050. Act 83 authorizes the Office of Planning to use the committee's report as a framework for addressing other climate threats and climate change adaptation priorities. The Office is also authorized to coordinate the development of climate adaptation plans and policy recommendations.
Integrates climate change adaptation priority guidelines into the statewide planning system. The policy identifies the challenges associated with rising temperatures, flooding, and coastal erosion, and encourages collaboration and cooperation among county, state, and federal agencies, policymakers, businesses, and other community partners to plan for the impacts of climate change and avoid, minimize, or mitigate loss of life, land, and property of future generations.