THE INSURANCE Insider

The hard truth

Climate change is increasing the severity of natural catastrophes and insurers can help address the challenge

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AXIS

Climate change is here, our horizon is now

Climate change may seem to some a theoretical issue, its consequences in the distant future. Working in (re)insurance, we can see the reality.

The effects of climate change are in the here and now. Our industry sees, and fights to mitigate, the toll climate change takes on business, communities, individuals and families. They are the ultimate victims of these subtle shifts in temperature and weather patterns across the globe.

Quite simply, this challenge also speaks directly to our purpose – why our industry exists. Our industry is here to stabilise and reduce the volatility in the structure of society and in spreading the risks that threaten it. And make no mistake, climate change at its current rate is unique to this era and is an epochal, one-of-a-kind risk.

Climate change is here, our horizon is now

In his book *Sapiens*, author Yuval Harari reflects on humanity's spectacular success as a species. When I was born, in 1942, the global population was approximately 2.5 billion. Less than 80 years later, the population has reached 7.5 billion – trebling in the space of one lifetime. And there is clear evidence that we are straining the finite resources of our planet.

In social sciences, thinkers have developed what they call the "tragedy of the horizon". Some leaders will let disaster occur at a later date when they are no longer in power. Because of the seriousness of climate risk, I hope the stewards of our vital assets will look at this issue in a more effective, longer-term manner. It is no longer possible to kick the can down the road.

The losses we have experienced as an industry in recent years underscore that our decision-making horizon for climate change must be now. Not in a decade, not in five years. We face today the unavoidable fact that ocean levels are rising, storm frequency is increasing, and flooding is becoming an annual occurrence in areas where it used to be a rarity. Wildfires have become commonplace in California, Australia and elsewhere, while some nations are experiencing droughts the likes of which they have never seen. And the longer the world fails to confront the reality of the threat, the more difficult it will be to mitigate its effects.

(Re)insurance's role within a multi-institutional response

Climate change is a global, complex risk that requires a coordinated, responsive, multi-institutional response. Shortages in water and food supplies and housing as well as the potential for mass migration are all closely interlinked, potentially destabilising factors. Business and the market can and should be at the forefront of the fight back against climate change.

As (re)insurers, we have an important role to play. We have first-hand experience with the changing climate. We have significant pools of data and advanced catastrophe modelling tools at our disposal, relevant technology, as well as hundreds of years of expertise. We can also provide experienced risk-based pricing. In addition, we bring an objective and non-political view. But, as of yet, our industry has not done nearly enough

to share our valuable knowledge and insights on how to adapt to and mitigate climate risk.

We can, and must, do more. As (re)insurers, we have a business and moral obligation to help make people aware that they have options of how to address and improve their risk mitigation, risk adaptation and where we go in the future. We can help the world become better by investing in areas like renewable energy, understanding cyber risks and developing products for the intangible side of the balance sheets, among other areas. Specifically, in developing nations where sufficient access to alternative energy sources is not yet available, it is also critical to help facilitate a "just transition" by helping provide access – for example through renewable energy insurance.

Thus, there is a strong business case to be made for addressing this issue. In fact, our industry's responsibility to our shareholders is the same as it is to the broader community. We can only build the business long-term if we address these issues constructively for society as a whole. Indeed, we can do an enormous amount by investing in the positive sides of climate risk – because we have the expertise and knowledge to do so. We must fulfil the promise of our industry to be the disciples for a safer world.

Future of Insurance: climate risk & the insurance implications

Recently AXIS, in close partnership with the Gies College of Business at the University of Illinois, brought together representatives from business, academia and government for a symposium focused on climate change. The event included experts from atmospheric science, finance, economics, engineering and public policy.

The purpose of the symposium was to convene a discussion on climate risk and on how we can together form a multi-institutional response to address the threat. One key, we agreed, is to create a common language between science and business.

It was appropriate and intentional that the event took place on a college campus. Key to our success will be our ability to attract future business leaders to pursue a career in (re)insurance. And there has never been a more exciting time to work in (re)insurance. Our profession is transforming as it adapts to the impact of new digital technologies and innovation, shifting political, social and economic conditions – and of course emerging risks, like those posed by climate change. Our profession needs an increasingly wide range of skills as the challenges multiply – we are looking for data scientists, digital specialists and InsurTech experts. For those with a strong sense of purpose and commitment to the "common good" – defining attributes for millennials and Gen Z – our profession provides an enormous opportunity to make a positive impact.

The stakes could not be higher. It is no exaggeration to say that climate change is an existential threat and the most serious issue of our time. I therefore invite you to read the articles in this supplement carefully – we will always be open to working closely with all partners to tackle this threat together.

By Michael Butt, OBE, Chairman, AXIS Capital

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Renewables: who dares wins

At the UN climate change meeting in Madrid in December delegate countries discussed how to meet their Paris Agreement commitments. This year they will be required to stump up specific plans at a crunch summit in Glasgow.

Their efforts will clearly involve massive growth in renewable energy, with the International Energy Agency earlier this month predicting renewables will by 2040 account for nearly half of total electricity generation – up from about 25 percent now.

It's hard to think of a more tangible example of fast-proliferating assets that require insurance than renewable projects.

And given that some of the world's leading carriers have pledged to curb underwriting for fossil fuel projects, one might assume they would be stampeding towards them.

But several factors have contributed to what this publication noted recently is a hardening market.

One is an increase in the frequency and severity of losses, ironically in some cases because of weather phenomena possibly linked to climate change.

The second is the untested nature of some of the evolving technology, including mammoth wind turbines and constantly advancing solar panels.

Carriers underwriting at a loss for PR purposes haven't helped and nor has the time-honoured tradition of governmental flipflopping on the support provided to the renewables sector.

AXIS US head of renewable energy Tom Cain in November bemoaned "stop-start" public policy, which he said led to projects being rushed and made underwriting harder.

Then there this is regulatory pressure. Policymakers may be keen for these products to secure cost-effective cover but regulators overseeing underwriting, including Lloyd's, are looking at the class closely.

Certain carriers, including CNA Hardy, have decided it's all too difficult and have beaten a total or partial retreat.

Yet despite all this, renewable underwriting is surely worth carriers pursuing to build specialism in the sector and position themselves for future growth.

> "Renewable underwriting is surely worth carriers pursuing to build specialism in the sector and position themselves for future growth"

The inaugural Munich Re syndicate in a box is one such operation planning to do so, leveraging the expertise of its massive parent.

Even though overall renewable energy investment has wavered in recent months, Paris targets can't be met without huge capacity growth, and insurers and other investors will make these projects happen, driven in part mounting ESG pressures on their portfolios.

Multinational climate change obligations mean government subsidy regimes will surely have to become more predictable – and the technologies as a whole should become easier get a handle on as the industry matures. Wordings should logically also evolve as risk management know-how increases.

Renewables underwriting – and investment – is of course great PR.

It also addresses a perennial criticism of (re)insurers that their products aren't keeping pace with modern needs.

But above all providing solutions for new and evolving risk is lifeblood of the industry, and growth would stutter without it.

Laura Board
Editor,
The Insurance Insider

Insurers must explain the 'real price' of climate change: AXIS' Butt

The AXIS chairman says the industry can show lawmakers the true costs of failing to address the risks

The insurance industry should use its technical expertise in pricing risk to convince politicians of the financial impacts associated with climate change, AXIS' chairman has said.

Speaking in November at a climate risk insurance symposium sponsored by the carrier and hosted by the Gies College of Business at the University of Illinois, Michael Butt said (re)insurers needed to be more proactive in using its risk modelling and pricing expertise to give lawmakers a more accurate understanding the economic losses spurred by climate change.

"We can put a better – much more accurate – price on risk."

"If we can get politicians to understand the real price of risk and get them to understand that subsidies do not help," the senior executive said, adding that curtailing government involvement in some schemes may help risks to be priced more accurately.

> "We can put a better – much more accurate – price on risk"

Butt said the Bermudian reinsurance market could help provide more accurate research into the economic impact of global warming and cited the flurry of investment in catastrophe modelling that began with the launch of the market in the early 1990s.

"It was in 1992 when the industry seriously began to invest in weather modelling because of the lack of good information [about catastrophes].

> "The Bermuda market has been instrumental – partly because of its location – in helping to develop a better understanding of climate risk"

"The Bermuda market has been instrumental – partly because of its location – in helping to develop a better understanding of climate risk," he said.

Butt joined AXIS in 2002 and has held a string of senior executive and non-executive roles at carriers including as a director of XL Capital, Farmers Insurance Group and as chairman of Sedgwick Limited.

His comments follow a warning from Munich Re at the industry's annual Baden-Baden meeting that climate change is causing the risk of extensive wildfires to increase rapidly both in mainland Europe and North America.

Multiple sources speaking to *The Insurance Insider*'s sister publication *Trading Risk* have said that potential new third-party investors are challenging the industry on climate change and withholding funds because they do not like the industry's failure to act.

US renewables hindered by 'stop-start' public policy

Rapid changes in the landscape of state tax credits have made it harder for insurers to underwrite renewable energy projects and contributed to a rise in claims, AXIS' US head of renewable energy said.

During a climate risk insurance symposium hosted by the carrier in Champaign, Illinois, Tom Cain said the introduction and removal of state tax credits for renewables, which he described as "stop-start" public policy. The shifts have in some cases caused construction contractors to rush and in some cases compromise the design of energy projects.

"We've seen developers racing to get projects finished before the tax credits disappear", he said.

"It has had a knock-on effect on the quality of workmanship."

The senior underwriter said the effect of such tax breaks was especially acute because of the slew of new investors such as major banks and institutional funds to the market.

"We're seeing projects being 100 percent destroyed, but also an increase in the number of projects being built," Cain said, adding that the stop-start nature of tax credits had led to a rise in claims.

The renewable energy insurance market has absorbed a spike in losses in recent years as a result of major losses caused by natural catastrophes such as hailstorms and hurricanes.

However, Cain observed that insurers have in recent months begun to push back on contractors, which has had a positive impact on new projects being developed.

"This has led to some positive signs. We are seeing projects being developed more thoughtfully."

"Insurers having more influence on the early development of projects is a positive thing," he said.

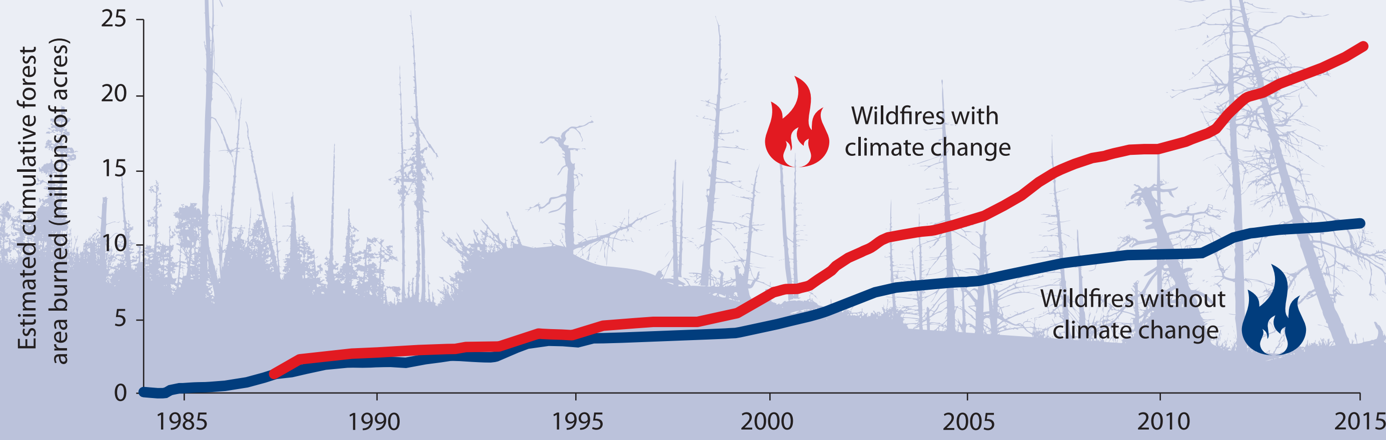
Earlier this year renewable energy insurers were hit with a loss of $70mn-$80mn after hail damaged over 400,000 panels on solar farm in West Texas underwritten by MGA GCube.

"We've seen developers racing to get projects finished before the tax credits disappear. It has had a knock-on effect on the quality of workmanship"

Speaking alongside Cain at the conference, climate scientist Don Wuebbles emphasised that climate change would cause an increase in the intensity of weather events such as wildfires and hurricanes and that the industry would need to be creative in its response to increasing global carbon dioxide emissions.

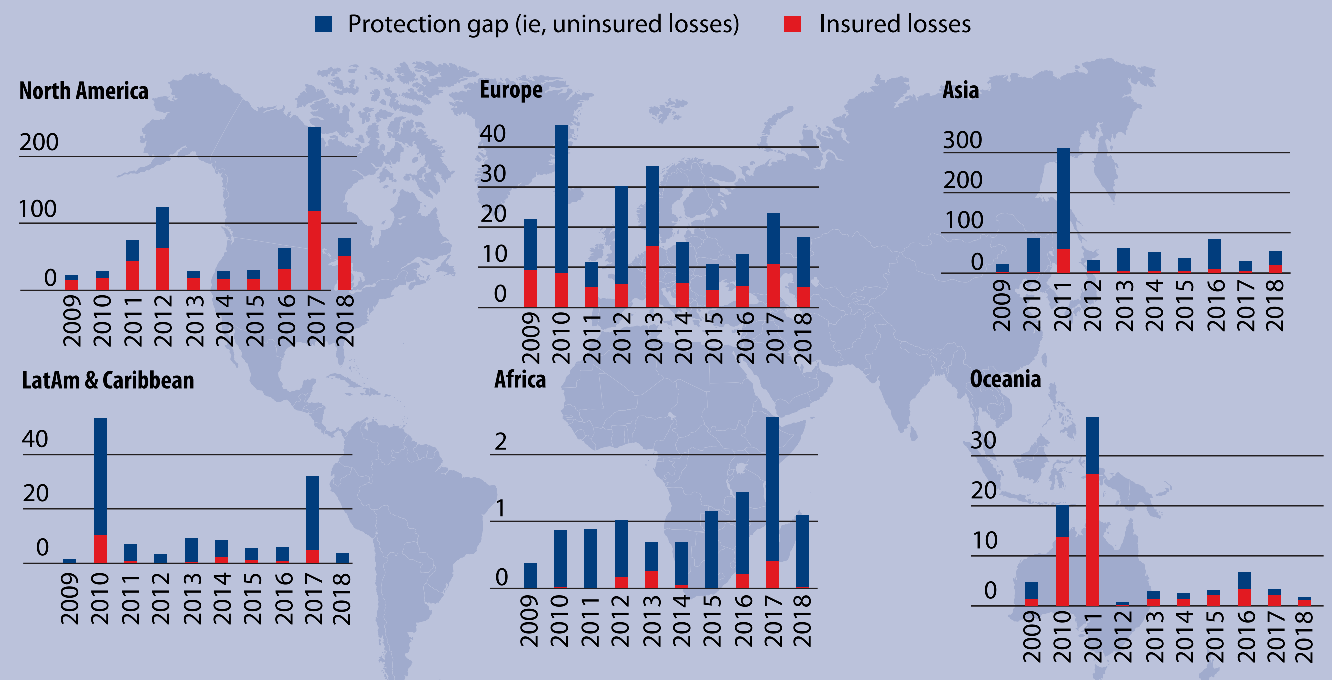
"We need to mitigate the suffering [caused by climate change] and that can only be achieved through innovation and adaptation," he said.

Wildfire extent: area burned in the western US since 1984



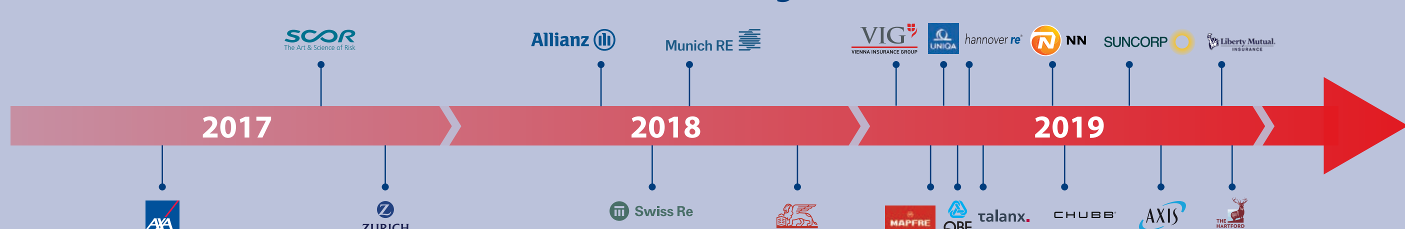
Source: Munich Re, based on Abatzoglou/Williams 2016, PNAS 113

Natural catastrophe protection gap by region 2009–2018 ($bn in 2018 prices)



Source: Swiss Re Institute

Insurers are ditching coal



Source: Unfriend Coal

Former White House climate scientist receives AXIS-backed fellowship

Donald Wuebbles is one of four academics to receive funding to research the effects of climate risk

A former White House adviser is one of four senior academics to receive a climate risk fellowship co-sponsored by AXIS.

Professor of atmospheric sciences Donald Wuebbles, who served as assistant director at the office of science and technology policy of the US president between 2015 and 2017, has been selected as a recipient of the funding.

He is an expert in atmospheric physics and chemistry and has spent a portion of his career developing metrics that allow lawmakers to track the impact of climate change.

Academics Tatyana Deryugina, Paolo Gardoni and Kaiyu Guan have also been awarded fellowships, which will be used to support research examining the effect of climate risk on individuals, economies and insurers.

The three researchers have previously published studies analysing health and mortality after natural disasters, wildfire prediction, and indices for agricultural insurance products.

The grants are funded jointly by AXIS and the University of Illinois' Office of Risk Management and Insurance Research, and were awarded at a climate risk symposium in Champaign on 8 November.

In addition to the fellowships, AXIS and the University of Illinois have sponsored a student award designed to incentivise students at major US universities to solve a set of challenges relating to climate risk and insurance.

University of Illinois students Faith Zou and Weiye Chen took first place, while Michael Deo from Penn State and Sri Ravindran from Ohio State were awarded second and third place respectively.

The launch of the fellowship and student award, designed to spur the academic study of climate-related insured losses, comes amid heightened collaboration between the industry and the public sector.

In December, Hannover Re announced it had partnered with the German state and the UK's Global Parametrics to form a EUR75mn ($83mn) natural disaster fund.

Initial backing of EUR25mn was obtained from the German Federal Ministry for Economic Cooperation and Development, however Hannover Re has since committed an initial EUR50mn to the programme.

The new fund will target investments in risk-transfer instruments exclusively relating to natural catastrophes and climate risks in developing markets.

Commenting on the fellowship awards, AXIS group CUO Eric Gesick said: "It was important to us to support the initiation of new research into how the insurance and reinsurance industry needs to address climate risk to help society appropriately manage the risks it faces now and in the future."

US regulators sceptical of insurers' climate change readiness: Deloitte

A majority of US insurance departments say climate change will impact the availability of coverage and underwriting practices

Many US insurance regulators are sceptical about how well-prepared carriers are for climate change, Deloitte has found.

The consultancy and audit firm quizzed 27 US insurance departments on climate change, after natural catastrophes linked to global warming caused record losses in 2017 and 2018.

A majority of departments said that climate change will have a dramatic impact on the availability of insurance coverage and underwriting practices.

Six regulators agreed that climate change will have an "extremely high impact" on the availability of coverage, while 12 said a heating planet would have a "high impact" on the underwriting assumptions.

Risk modelling, pricing strategy and product development are other areas where most regulators responding to the Deloitte survey said climate change would have an impact.

Government officials "are watching the implications of climate-related risks very carefully and are becoming increasingly concerned about how well insurers are managing them", the Deloitte report noted.

"A majority of regulators surveyed by Deloitte were either unaware or not fully convinced about how prepared insurers are to deal with climate-related risks," the report continued.

The paper urged insurers and regulators to strike a balance between solvency requirements and the need to provide customers with affordable coverage.

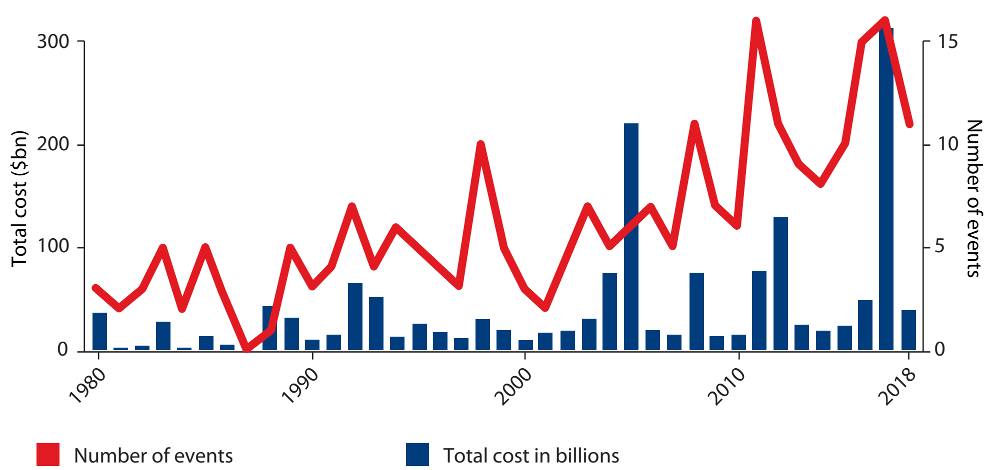
"A majority of regulators surveyed by Deloitte were either unaware or not fully convinced about how prepared insurers are to deal with climate-related risks"

While the most obvious impact of climate change will be on insurers' property portfolios, casualty books could also be impacted by climate change liability claims.

The financial lines market is closely following a securities lawsuit against Exxon Mobil in New York, which accuses the energy firm of not properly disclosing climate change risks to investors.

The Deloitte research recommended increasing the level of disclosure insurers provide to regulators around climate change risk.

US billion-dollar disaster events, 1980–2018



Source: BlackRock Investment Institute, with data from NOAA National Centers for Environmental Information (NCEI) US Billion-Dollar Weather and Climate Disasters, October 2018.

Australia wildfire losses approach $1bn mark

The reinsurance programmes of IAG, QBE and Suncorp will respond to losses

Australian bushfires have caused insured losses of more than A$1.34bn ($923.7mn) since 8 November, according to the Insurance Council of Australia (ICA).

Total claims from the blazes, which have scorched large areas of New South Wales (NSW), Victoria and Queensland, increased to 13,750 as of mid-January, up from the previously declared level of 10,500.

The ICA warned that a "sharp increase" in claims is expected as household property assessments are undertaken and large commercial claims are lodged.

Sydney-headquartered IAG has said its 2019 aggregate will trigger as a result of December fires that have continued to rage into January 2020.

Meanwhile, Suncorp noted that the fires had significantly eroded deductibles under various aggregate protections it has in place for its fiscal year to 30 June 2020.

The Insurance Insider's sister publication *Trading Risk* earlier reported that the bushfires would hit aggregate and quota share sections of insurers' protections but leave occurrence covers largely unscathed.

Australia's largest three carriers have comprehensive reinsurance programmes which will respond to the losses.

IAG has a 32.5 percent whole-account quota share arrangement in place, which covers cat exposures. This comprises a 10-year, 20 percent arrangement with Berkshire Hathaway, which incepted in July 2015, and three agreements for a combined 12.5 percent with Munich Re, Swiss Re and Hannover Re, which were inked in January 2018.

Market sources speaking to this publication said they believed the number of structures damaged or destroyed would be small in comparison to the Californian wildfires that raged last winter. Property values in rural Australia are also relatively low, with one source positing A$500,000 as a rule-of-thumb average.

A broking source said that should the fires remain in rural areas the events would not be as significant a reinsurance event, but added losses could quickly escalate should the fire spread to the Sydney suburbs.

The scale of the fires will put increased scrutiny on hours clauses in property cat cover for Australia. Underwriting sources said hours clauses varied widely from one cedant to the next.

California extends mandatory wildfire insurance renewals

The new legislation will compel insurers to renew cover for over 1 million wildfire-threatened homeowners

California insurance commissioner Ricardo Lara has extended the compulsory protection against insurance non-renewal to new areas that have recently been hit by wildfires.

A total of one million homes in wildfire-prone areas are now protected against non-renewal of insurance contracts in the state, including properties in newly protected areas within San Bernardino and Riverside Counties.

The move, announced last month, is an extension of a policy enacted earlier in December that protected over 800,000 homes from non-renewal.

Lara said: "This wildfire insurance crisis has been years in the making, but it is an emergency we must deal with now if we are going to keep the California dream of home ownership from becoming the California nightmare, as an increasing number of homeowners struggle to find coverage."

The state has been repeatedly hit by damaging wildfires in recent years, which has made it more challenging for homeowners to find affordable insurance.

The latest set of major blazes tore through California in October, wreaking havoc across areas in the Simi Valley and in the Greater Los Angeles region.

State laws previously protected homes that had suffered a total loss from non-renewal, but the new protection extends to homes adjacent to those which have suffered a total loss.

The increasing difficulty of finding cover has forced many homeowners to obtain insurance from the state-backed Fair Plan, which offers less extensive coverage.

The Fair Plan is set to be expanded by 1 April 2020 to include full homeowners' cover, instead of a fire-only policy.

After 2017 and 2018 proved the deadliest and most destructive years on record for wildfires in California, blazes in 2019 consumed over 259,000 acres and destroyed 732 structures in the state over the course of the year.

Lara previously served as a state legislator and authored Senate Bill 824, which allows the regulator to order companies to renew clients living near areas affected by wildfire.

He became state insurance commissioner in 2018.

"This wildfire insurance crisis has been years in the making, but it is an emergency we must deal with now if we are going to keep the California dream of home ownership from becoming the California nightmare, as an increasing number of homeowners struggle to find coverage"