

# The canary in the coalmine: Insurability as a resilience signal

This briefing sets out why insurability is emerging as a critical early warning signal of climate risk, and why it matters for policymakers, financial institutions and businesses. ClimateWise is developing an Insurability Readiness Matrix to support decision-makers in identifying where risk is approaching critical thresholds, and to highlight the levers that can help maintain insurability, protect economic resilience and enable continued investment.

Insurability is one of the earliest signals of whether assets, sectors and economies can thrive under the accelerating impacts of physical climate risk. It represents a threshold where insurance is available and affordable;<sup>1</sup> when this signal begins to flicker, it indicates that the underlying risk may be outpacing our current capacity to manage it.

This shift is driven by both the intensification of extreme weather events and underlying structural conditions. How we build, where we develop, how we manage risk and how repair markets function all dictate the ultimate cost of loss. When these costs become untenable and insurance is compelled to retreat, the domino effect is immediate: assets become unbankable, then uninvestable – triggering potential systemic economic, fiscal and social risks.

Maintaining insurability therefore requires collective action across the whole ecosystem: financial institutions, policymakers, businesses and communities. By proactively assessing and communicating insurability, we can pivot from the **vulnerability spiral** we are currently facing, towards a **resilience dividend**. Developing tools that enable a greater understanding of insurability can provide a **shared language** to identify where policy and investment must act to keep economies insurable, bankable and investable.

**Figure 1: Insurability as a resilience signal: from systemic risk to action**

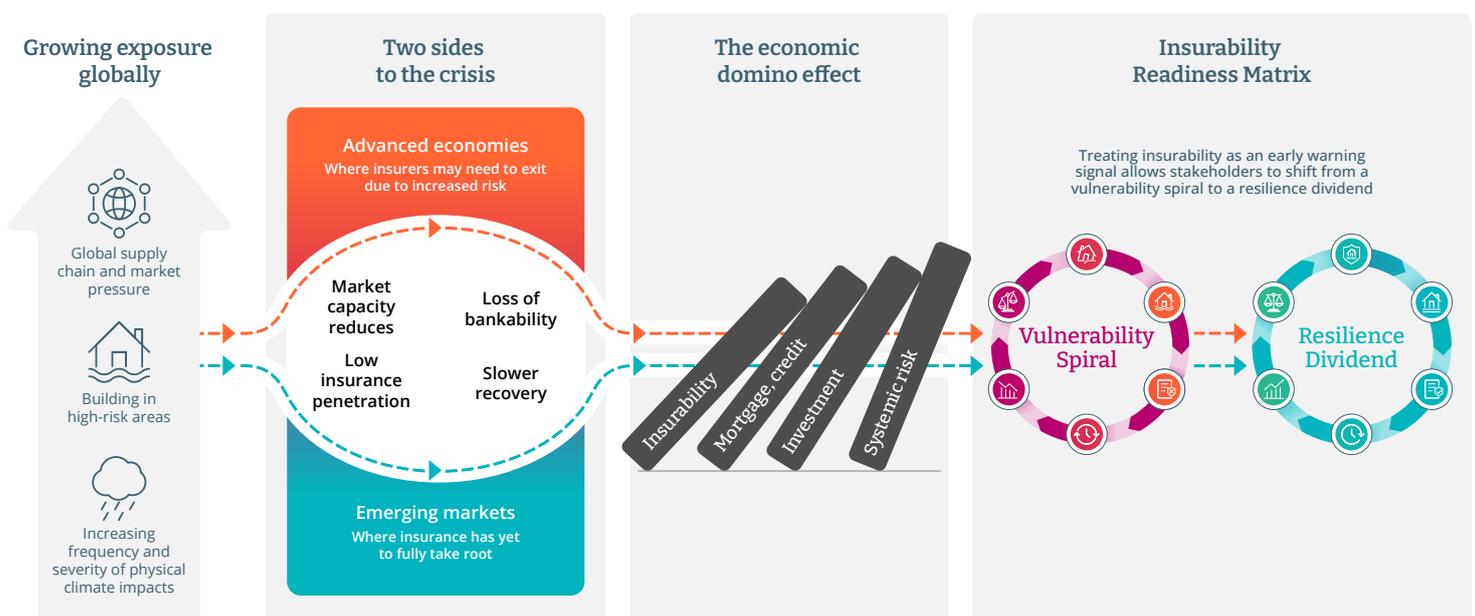


Figure 2: Insurability readiness enables us to avoid a vulnerability spiral and move towards a resilience dividend



## 1. A growing exposure globally

The systemic risk posed by uninsurability is growing across the globe:

- **Losses are growing:** Natural disasters caused US\$318 billion in 2024, 25 per cent above the ten-year average.<sup>2</sup>
- **Protection is lagging:** In 2024, more than half of total losses were uninsured,<sup>2</sup> and this gap is expected to widen—rising by a further 25 per cent in 2025<sup>3</sup> and doubling by 2030 compared with 2023 levels.<sup>4</sup> The shortfall is particularly acute in lower-middle- and low-income countries, where protection gaps exceed 95 per cent.<sup>5</sup>
  - **Pakistan:** The 2022 floods displaced nearly 8 million people and pushed the national poverty rate up by an estimated 4 percentage points. Economic losses reached approximately US\$15.2 billion,<sup>6</sup> yet low insurance penetration meant the vast majority of damages went uninsured.<sup>7</sup> With population growth and intensifying climate change, the number of people in Pakistan vulnerable to disasters is projected to rise significantly by 2030.<sup>8</sup>
- **Fiscal strain:** When losses are uninsured, governments backfill through debt and ad hoc aid – this is generally slower, costlier and less efficient than pre-arranged risk management,<sup>9</sup> with potential impacts on sovereign credit quality.<sup>10</sup>
- **Challenges on insurability are expanding:**
  - **US:** In California, growing numbers of wildfires, alongside difficulties obtaining insurance, have made the state’s insurers of last resort see a 230 per cent increase in exposure since 2022 to US\$724 billion.<sup>11</sup> The 2025 Los Angeles wildfires saw over US\$20 billion in payouts,<sup>12</sup> with over 60 per cent of households reporting being underinsured.<sup>13</sup>
  - **UK:** In Worcestershire, after near annual floods and with local authorities unable to raise £30 million to pay for flood defences, key public buildings have become effectively uninsurable.<sup>14</sup>
  - **Australia:** Over 650,000 properties face high climate hazard risk and are subject to either unaffordable cover or no cover being available at all.<sup>15</sup>
- **The paradox:** Despite these signals, we continue to build in harm’s way.
  - **US:** 57 per cent of new homes in 2023 were built in high-risk hurricane, flood and wildfire areas.<sup>16,17</sup>
  - **UK:** 11 per cent of new homes built between 2022 and 2024 are in medium to high-flood-risk areas.<sup>18</sup>

## 2. Two sides to the same crisis

There are important differences between insurance companies exiting high-risk markets in developed economies, and the low insurance penetration levels in emerging markets.

While the language varies by economy, the underlying threat – the absence of risk transfer – is a shared trap.

	Emerging markets	Advanced economies
<b>Primary context</b>	Markets where insurance never fully took root.	Markets where insurers may need to exit due to increasing risk (climate disasters are driving insurance losses up 7% annually). <sup>19</sup>
<b>The mechanism</b>	Low insurance penetration (average of 3% in developing economies). <sup>1</sup>	Market withdrawal due to increasing risk and unaffordability of cover.
<b>Economic impact</b>	4x longer economic recovery time, compared with countries with a high insurance penetration level. <sup>20</sup>	Loss of bankability; mortgage and credit freezes.
<b>Strategic risk</b>	Rapid urbanisation on increasingly high-risk lands.	Ageing infrastructure and continued building in high-risk areas.
<b>Focus</b>	How to expand robust insurance protection.	How to retain robust insurance protection.

### Example: Urbanisation, growing risk and insurance in Bukavu

Rapid urbanisation has pushed the city of Bukavu in the Democratic Republic of the Congo (DRC) to expand onto sloping terrain to accommodate its growing population, increasing its exposure to landslides.<sup>21</sup> Currently, the country's insurance penetration rate is estimated at 0.71 per cent of gross domestic product (GDP),<sup>22</sup> exposing many to significant financial risk in the event of disaster. Beyond the social toll of uninsured losses, this protection gap is a barrier to the mobilisation of mitigation and adaptation finance. Insurance has an underleveraged role to de-risk and enable investment;<sup>23</sup> the absence of insurance restricts the flow of private capital to where it is most needed.

## 3. The economic domino effect of uninsurability

If insurability fails, shocks have the potential to cascade across the economy:

- 1. Reduced insurance capacity:** premiums climb, or coverage becomes unavailable due to escalating risk and inflationary pressure.
- 2. Credit contraction:** lenders cannot issue mortgages or loans on uninsured collateral.<sup>24,25</sup>
- 3. Investment flight:** regions become unbankable; property values and tax bases decline, business competitiveness weakens.<sup>26</sup>
- 4. Systemic instability:** disruptions across housing, energy, transport and municipal finance ultimately undermine sovereign creditworthiness.<sup>27</sup>

At the same time, this dynamic is further strained when disaster hits. Without insurance, a slower economic recovery increases pressure on financing resources, restraining capacity for investment into resilience measures, and risk continues to outpace adaptive capacity. This cycle accelerates decline: as risk increases, the system becomes less insurable, less bankable and less investable, threatening overall economic growth and financial stability.

### Example: Underinsurance in North Carolina

After Hurricane Florence (North Carolina, 2018), property values in affected areas declined and mortgage delinquencies spiked. With the National Flood Insurance Program take up below 1 per cent in many counties, most households lacked coverage, highlighting how underinsurance magnifies economic and financial stress.<sup>28</sup>

Treating insurability as an early warning signal allows stakeholders to shift from a self-reinforcing vulnerability cycle to one centred on resilience, enabled by proactive adaptation. In this cycle, risk reduction measures enhance insurability, strengthening financial flows and enabling continued investment and growth. This investment and growth further supports future insurability and resilience investments.

“What is not insurable is not bankable and not investable.”

COP30 Insurance Communiqué <sup>29</sup>

## 4. Driving action: identifying levers

Uninsurability is not an inevitable outcome of climate change; it is a function of today's policy and investment decisions.

There are a number of levers to support insurability:

- **Transition planning:** incorporating insurability into country- and sector-level transition and adaptation plans.
- **Improved modelling and data availability:** making data accessible to allow for incorporation into and updating of risk models, mapping and early warning systems.
- **Risk-informed development:** integrating climate hazards into land zoning, building regulations and development plans.
- **Resilience infrastructure:** investing in adaptation and resilience measures (eg, sea walls, nature-based barriers, sustainable drainage) that reduce risk.
- **Dynamic diagnostics:** developing a shared tool to assess sectors approaching risk thresholds, and identifying levers to reverse the trajectory.

## 5. What's next: Insurability Readiness Matrix

ClimateWise is developing an **Insurability Readiness Matrix**. We are building a shared language that will help (re)insurers to easily communicate with the financial sector, corporates, policymakers and regulators:



if assets, projects or regions are insurable under evolving climate scenarios



the specific levers required to maintain or improve insurability

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## ClimateWise

ClimateWise brings together the insurance industry into a member network convened by CISL, which integrates sustainable leadership with world-leading research capability to address the impacts of climate change. ClimateWise is uniquely placed to bring together business, government and academic expertise; it provides a collective voice for the industry; a forum to interact with other stakeholders, and it enables the transition of the insurance industry through a defined set of Principles aligned to disclosure requirements.

## The Centre for Sustainable Finance

CISL's Centre for Sustainable Finance's focus is to collaborate, co-create research and tools, and build narratives and the human skills and capacity required to accelerate the rewiring of the global financial system to support a sustainable economy. The Centre works closely with international financial organisations and, in particular, hosts three membership groups for private financial institutions – the Banking Environment initiative for banks, ClimateWise for insurers and the Investment Leaders Group for investors.

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