



INCREASING INSURABILITY TO CLOSE PROTECTION GAPS

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CONTENTS

Foreword	3
I. Introduction	4
A. Root Causes	5
B. Under Penetration (Insurance Market Failures and Limitations)	6
C. Go-Forward Approach & IDF Analysis	7
II. Increasing the Understanding of What it Takes to Make a Risk Insurable	8
A. The Underwriting Process Generally	9
B. Strategic Underwriting & Risk Appetite	9
C. Technical Underwriting	10
1. <i>Underwriting Policies/Guidelines</i>	10
2. <i>Evaluate the Submission</i>	11
3. <i>Develop Underwriting Alternatives</i>	11
4. <i>Risk Classification and Pricing</i>	11
III. Enhancing the Resilience of Communities, Entities and Individuals	12
A. Significant Factors Increasing Losses	12
B. Addressing the Problem of Affordability	13
IV. The Role of Laws and Regulations	18
A. Addressing Regulatory Barriers & Impediments	19
B. Incentivise Risk Mitigation via Regulation	21
C. Conclusion	23
V. Changing Consumer Behaviour	24
VI. Building Trust and Confidence	27
A. Importance of Insurance Risk Literacy	27
B. Promoting Behavioural Impact: Moving Beyond Awareness	27
C. The Need for Digital Tools in Financial and Risk Literacy	28
D. Innovative Government Initiatives: Charting NatCat Financial & Risk Literacy	28
VII. Conclusion & Call to Action	30
Appendix A - Consolidated Recommendations by Stakeholder Category	31

FOREWORD

By Ekhosuehi Iyehen, Secretary General

There are moments when the scale of a problem defies the comfort of incremental solutions. The global protection gap – now yawning at over \$180 billion a year in uninsured losses from natural catastrophes – is one of those moments. It is not merely a gap in finance or risk transfer; it is a chasm that separates those who can withstand, recover, and rebuild after natural catastrophes from those who cannot. Strikingly, the protection gap has been growing rather than shrinking in recent years – despite the collective efforts of many.

This crisis is distinctly multi-dimensional. It is as much a failure of markets to expand as it is of public policy and imagination. For too long, we have accepted that large swaths of the world's population are "uninsurable." Now there are predictions that the increasing frequency and severity of weather-related disasters could make even previously insurable regions "uninsurable." **That word, spoken so casually, has become a verdict rather than a challenge. But what if we refused to accept it?** What if we redefined insurability not as a fixed characteristic of a market, but as a condition we can create through policy, innovation, and collective will?

This report, *Increasing Insurability to Close Protection Gaps*, dares to do just that. It looks unflinchingly at the root causes of under-insurance and under-resilience – including structural vulnerabilities, weak regulation, market inertia, and behavioural barriers – and reframes them not as excuses, but as frontiers for change. It asks: "What will it take to make risks insurable in economies where the need is greatest?" And it answers not with abstract principles, but with a practical, multi-dimensional roadmap grounded in underwriting science, regulatory reform, risk literacy, and the reimagining of trust.

At the Insurance Development Forum, we have long argued that resilience is not a luxury. It is the foundation of sustainable development, stability, and dignity. But it is also a significant business opportunity. Expanding coverage in underserved markets is not merely a moral or developmental imperative – it is a source of growth, innovation, and long-term value for the insurance sector. The numbers are stark: in emerging and developing economies, insurance penetration hovers around 3%. When disasters strike – as they inevitably do – families, businesses, and governments shoulder the burden of the loss alone. We cannot call this progress. We cannot call this equitable.

Increasing and sustaining insurability means broadening the scope of inclusion, resilience, and economic opportunity. It fosters the development of new markets, new products, and new partnerships that align profitability with purpose. It ensures farmers in Mozambique, small businesses in the Philippines, and coastal communities in the Caribbean have the same access to financial protection as homeowners in London or New York. It aims to transform insurance from a privilege into a universal instrument of resilience.

This report is not comfortable reading; that is intentional. It challenges the industry to look inward at the way it designs, prices, and distributes protection, and embed prevention and adaptation into its core activities. It challenges regulators to rethink frameworks that constrain rather than catalyse innovation. And it challenges governments and development actors to regard risk financing not as an afterthought, but as a national priority.

Above all, it calls on all of us – insurers, reinsurers, intermediaries, regulators, legislators, donors, and development partners – to collaborate with the urgency that today's realities demand. There is precedent for this: when cities burned regularly in the 19th century, industry and authorities jointly developed building codes and established fire brigades. Similarly, when electrical appliances were invented, they were often unsafe; new standards were created to ensure they were suitable for their purpose.

The path to greater insurability will not be straightforward. It will require technical precision, political courage, and commercial innovation. But the cost of inaction is far greater than the cost of ambition. If we succeed – if we make risks once deemed "uninsurable" insurable – we will have achieved more than just closing a financial gap. We will have redefined what it means to protect, partner, and prosper.

That is the promise and the provocation of this work. Let us be daring enough to deliver it.

I.

INTRODUCTION

The increased frequency and severity of natural catastrophes (**NatCats**), including earthquakes, hurricanes, typhoons, severe convective storms, floods, wildfires, volcanic eruptions, droughts, and extreme heat has been widely reported. In 2024, economic losses from NatCats amounted to approximately \$318 billion, and this figure has been trending upwards for decades.¹ The devastation caused by these events is exacerbated by the fact that nearly 60% of NatCat losses worldwide are uninsured.² As a result, there is currently a global “protection gap” – the difference between total economic losses and total insured losses – of about \$180 billion for natural catastrophes. To be clear that is an annual figure. Every year, there are more than \$180 billion of uninsured losses globally. These uninsured losses must be borne by governments, individuals, donor organisations, and others.

NatCat protection gaps are significantly larger in emerging markets and developing economies (**EMDEs**) where insurance penetration rates are lower (often as low as 3%).³ These are regions where governments, companies and individuals are most vulnerable and least able to withstand and recover from shocks.

There are many reasons why protection gaps exist. They include social, economic, market development, human biases, public policy, law and regulatory issues – and much has been written about steps that can and should be taken to help close protection gaps. This includes emphasising the value of ex ante versus ex post disaster risk financing, the need to reform the global financial network to better address this issue,⁴ the importance of donor governments, development finance institutions (DFIs), NGOs and others doing more, and the need for greater insurance and risk literacy among all stakeholders.

This paper was developed by the Law, Regulation and Resilience Policies Working Group of the IDF, with input from many IDF stakeholders.⁵ It addresses a key issue that lies at the heart of the protection gap problem, namely, whether a risk is insurable against NatCats.

By “insurable”, we mean a risk for which there is sufficient insurance coverage available, and the cost of that insurance is relatively affordable.

In the discussion below, this paper explores some of the root causes for a lack of insurability and proposes practical steps to improve insurability and, consequently, help close protection gaps. See Appendix A for more than 50 recommendations for governments, regulators, the insurance industry and others.

Although NatCat protection gaps exist in every country, this paper focuses on those in EMDEs. As with all discussions about how to close protection gaps, the solutions will necessarily vary by country or region. There are no silver bullets or one-size-fits-all solutions. That said, we hope that by examining the insurability issue more closely this paper will help guide more effective responses to the growing, devastating problem of NatCat protection gaps.

PROBLEM STATEMENT:

Natural catastrophes and the damage they cause are rising. Robust insurance markets and the products and services insurers offer benefit individuals, businesses and governments by providing valuable risk signals, fostering investment, spreading risk, and aiding in recovery when disasters inevitably occur. However, in many EMDEs, insurance products and services common in developed economies may be unavailable, unaffordable, or simply not purchased. With an average insurance penetration of 3%, these events and the losses they cause affect EMDEs and their citizens more severely.

With these trends not abating, it is critical to identify what is needed to increase EMDE insurability. To do that, it will be necessary to acknowledge and agree on the root causes for: A) why these economies are generally less resilient to natural catastrophes, and B) why insurance penetration is dangerously low, whether due to availability or affordability challenges, purchaser decision-making, or a combination of all three. Only then can one determine what can be done to enhance EMDE insurability, making them and their citizens more resilient to the impacts of NatCats.

1 See, e.g., Chandan Banerjee, et al., *Sigma 1/2025: Natural Catastrophes: Insured Losses on Trend to USD 145 Billion in 2025*, SWISS RE INST. (Apr. 29, 2025), <https://www.swissre.com/institute/research/sigma-research/sigma-2025-01-natural-catastrophes-trend.html>.

2 *Id.*

3 See, Marta Nogueira, *The Rise of the International Insurance Market*, CAIXABANK RSCH (Jun. 22, 2012), <https://www.caixabankresearch.com/en/rise-international-insurance-market?index=0>.

4 See, e.g., BRIDGETOWN INITIATIVE, BRIDGETOWN INITIATIVE ON THE REFORM OF THE INTERNATIONAL DEVELOPMENT AND CLIMATE FINANCE ARCHITECTURE (2024), https://www.bridgetown-initiative.org/wp-content/uploads/2024/09/SY043_Bridgetown-Initiative-3-0.pdf.

5 We would like to acknowledge the contributions of: Bill Marcoux, Co-Chair of the IDF Law, Regulation and Resilience Policies Working Group, Edmund Kenealy and Martin Hansen, Liberty Mutual, Carlos Montalvo, PWC, Mariana Jimenez- Huerta, Prudential, plc., Anthony Zobl and Suzy Awford, AIG and Timothy Grant, Chubb. In doing so, we note that the views in this paper are the views of the IDF and not of any individual company or person.

I. INTRODUCTION

A. ROOT CAUSES

There are many reasons why a risk may not be insurable against NatCats. These include:

- **Lack of Resilience:** EMDEs are often less resilient to natural catastrophes due to a combination of structural, economic, institutional, and social vulnerabilities:
 - **Limited Infrastructure Resilience:** Roads, buildings, power grids, and water systems are often poorly built, inadequately maintained, or outdated, making them more likely to fail during disasters as limited resources are directed to other, more urgent priorities.⁶
 - **Insufficient Financial Resources:** All countries must prioritise their limited financial resources, especially EMDEs. Despite their significant value, investments in disaster preparedness, emergency response systems, and post-disaster recovery often take a back seat to areas such as education, transport networks, and social services.⁷
- **Insufficient Governance and Planning:** Disaster risk management is often overlooked due to competing priorities, lack of coordination between agencies, if indeed such agencies exist, and limited technical understanding and/or capacity for long-term planning.⁸
- **High Informality:** A large proportion of EMDE economies often operate informally, meaning that workers and businesses are outside formal safety nets and regulatory protections, slowing and complicating recovery.⁹
- **Rapid Urbanisation:** Unplanned, rapid urban growth results in dense settlements in hazard-prone areas – such as floodplains or unstable hillsides – that lack adequate infrastructure or services.¹⁰
- **Environmental Degradation:** Deforestation, soil erosion, and poorly managed water systems can heighten the impact of natural disasters such as floods and landslides.¹¹
- **Limited Early Warning and Response Systems:** Early warning systems, emergency services, and evacuation plans are often inadequately developed, leading to increased casualties and damage.¹²
- **Lack of Data:** There is insufficient data of the quality required to evaluate the risk exposure and vulnerability of physical assets.¹³

6 See ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT (OECD), *INFRASTRUCTURE FOR A CLIMATE-RESILIENT FUTURE 20–25* (2024), https://www.oecd.org/content/dam/oecd/en/publications/reports/2024/04/infrastructure-for-a-climate-resilient-future_c6c0dc64/a74a45b0-en.pdf.

7 See, generally, Habtamu Fuje et al., *Fiscal Impacts of Climate Disasters in Emerging Markets*, INT'L MONETARY FUND (Dec. 15, 2023), <https://www.elibrary.imf.org/view/journals/001/2023/261/article-A001-en.xml> (commenting, in part, on limited fiscal space in EMDEs in response to disasters).

8 See GFDRR, *A REVIEW OF DISASTER RISK MANAGEMENT FOR FRAGILITY, CONFLICT AND VIOLENCE COUNTRIES IN THE WORLD BANK PORTFOLIO: FISCAL YEARS 2012–2022 10* (Jul. 2023), <https://documents1.worldbank.org/curated/en/099101123130041202/pdf/P17695800efa600c50a37707acdca8c7445.pdf?>

9 See generally, WORLD BANK GROUP, *THE LONG SHADOW OF INFORMALITY: CHALLENGES AND POLICIES* (Franziska Ohnsorge & Shu Yu eds., 2022), <https://openknowledge.worldbank.org/server/api/core/bitstreams/f3fbcde3-8891-424e-a574-6f247030a230/content>.

10 See, David Dodman et al., *Cities, Settlements, and Key Infrastructure in Climate Change 2022: Impacts, Adaptation and Vulnerability*, INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE (IPCC) (2022), <https://www.ipcc.ch/report/ar6/wg2/chapter/chapter-6/>.

11 See, Lennart Olsson et al., *Climate Change and Land: An IPCC Special Report on Climate Change, Desertification, Land Degradation, Sustainable Land Management, Food Security, and Greenhouse Gas Fluxes in Terrestrial Ecosystems*, IPCC (2019), <https://www.ipcc.ch/srccl/chapter/chapter-4/>.

12 See, WORLD METEOROLOGICAL ORG. (WMO) & UNITED NATIONS OFF. FOR DISASTER RISK REDUCTION (UNDRR), *GLOBAL STATUS OF MULTI-HAZARD EARLY WARNING SYSTEMS: 2024 8* (2024), <https://library.wmo.int/records/item/69085-global-status-of-multi-hazard-early-warning-systems-2024>.

13 See, UNDRR, *CLOSING CLIMATE AND DISASTER DATA GAPS: NEW CHALLENGES, NEW THINKING 13* (2023), <https://www.undrr.org/media/91937/download?startDownload=20251030>; see also, UNDRR, *DATA AND DIGITAL MATURITY FOR DISASTER RISK REDUCTION, INFORMING THE NEXT GENERATION OF DISASTER LOSS AND DAMAGE DATABASES 33–35* (2022), <https://www.undrr.org/publication/documents-and-publications/data-and-digital-maturity-disaster-risk-reduction-informing>.

I. INTRODUCTION

B. UNDER-PENETRATION (INSURANCE MARKET FAILURES AND LIMITATIONS)

Whether due to availability or affordability issues, or purchaser decision-making, insurance penetration remains dangerously low for many reasons, including:

Availability Challenges

- **Weak Legal and Regulatory Frameworks:**
 - Protectionist, underdeveloped or inconsistent regulations can discourage insurers, especially global (re)insurers, from entering or expanding in these markets.
 - Lack of regulatory enforcement regarding compulsory lines may decrease demand.
 - Weak contract enforcement and legal systems (rule of law) might undermine trust in the claims settlement process.
- **Lack of Data and Actuarial Infrastructure:**
 - Limited access to historical loss data makes pricing and risk assessment challenging for insurers.
 - These challenges result in increased premiums and conservative underwriting.
- **Limited Access and Distribution:**
 - Insurance products are not easily accessible, especially outside urban centres.
 - Traditional distribution channels, i.e., brokers and agents, may be underdeveloped, and digital or direct platforms may still be emerging.
- **Macroeconomic and Political Instability:**
 - Unstable economic and political environments increase the risk profile, making insurers hesitant to enter or expand in EMDEs.
 - Currency volatility and inflation erode the value of policies and reserves.

- **Reinsurance Limitations:** Limited domestic reinsurance capacity (see protectionist regulation) might hinder local insurers from accepting large or specialised commercial risks.
- **Informal Economies:** A significant part of economic activity occurs outside formal structures, where insurance is less available or relevant.

Affordability Challenges

- **Greater Risk Levels:** As risks increase the market rate for those risks also increases.
- **Low Income Levels (Personal Insurance):** Many people in emerging economies have limited disposable income, which makes insurance seem like a non-essential expense.
- **Affordability and Economic Constraints (Commercial Insurance)**
 - Many small and medium-sized enterprises (SMEs) operate on tight margins and view insurance as too expensive.
 - A high informal-sector presence means many businesses avoid formal registration or reporting income, complicating underwriting.
- **Product mismatch:** Insurance products are often designed for wealthier or urban consumers and may not suit the needs of poorer or rural populations.

I. INTRODUCTION

Purchaser-Decision Making

- **Lack of Awareness and Financial Literacy (Personal Insurance):** There is often a limited understanding of how insurance works, its benefits, or how to assess different products, resulting in low demand.
- **Low Awareness and Understanding (Commercial Insurance)**
 - Many businesses in emerging markets, especially SMEs, are unaware of the benefits of commercial insurance or misunderstand its purpose.
 - There's often a lack of risk management culture, and insurance is regarded as an unnecessary expense rather than a strategic safeguard.
- **Trust Deficit**
 - Low confidence in insurers' capacity or willingness to settle claims diminishes demand.
 - Previous experiences of claim denials or fraud further reduce confidence.

C. GO-FORWARD APPROACH & IDF ANALYSIS

In the face of these challenges the question is what can and should be done to increase the insurability of the most vulnerable countries. We explore some concrete steps throughout this publication. In doing so, we note that the challenges and solutions will all need to be country-specific. Also, we don't propose solutions to all relevant root causes. However, we hope that by cataloguing many of the root causes and offering solutions for several, that we will demonstrate that if we tackle the problem of NatCat protection gaps

holistically and with the assistance of many key stakeholders, we can make greater progress in closing these gaps. The benefits to the economies, lives and livelihoods of those in EMDEs will be immense.

So, what can be done to improve the insurability of risks in EMDEs? The answer is "a lot." In truth, there are more steps to take than we can cover in this paper. However, the following should be prioritised.

II.

INCREASING THE UNDERSTANDING OF WHAT IT TAKES TO MAKE A RISK INSURABLE

It is important that all stakeholders understand how an insurer assesses a risk and determines whether it is a risk the insurer is willing to insure and on what terms and conditions, including price. In fact, it is vital that insurers are able to charge a risk- and cost-based price for the coverages they provide. Without this, insurance solutions become unsustainable.

This section outlines the insurance underwriting process and the factors influencing an insurer's decision on whether to provide coverage and, if so, the premium charged.

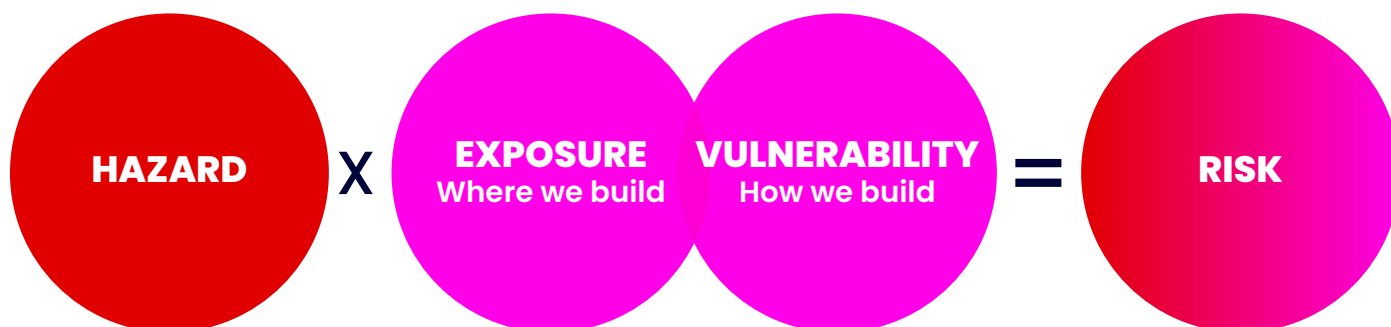
A fundamental element of an insurable risk is a risk that an insurer is willing and able to provide coverage for after confirming it meets its acceptance criteria.¹⁴ As outlined below, there are several components to these criteria.

When underwriting NatCat risks, insurers are primarily concerned with three key factors: exposure, hazard(s), and vulnerability¹⁵ (see **Graphic 1**). These factors can significantly influence insurability, as insurers adjust coverages and premiums to reflect inherent risks. In addition to working through their underwriting criteria, insurers face other insurability-related challenges during

the underwriting process. It is important to understand that insurers estimate their future losses and set premiums before an insured event occurs. They do so by analysing a large pool of insureds containing a variety of risk profiles, the types of losses an individual risk might incur as well as historical loss experience. In light of this approach, insurers have to be wary of the risks relating to adverse selection, information asymmetries, and the availability and reliability of data on a particular risk. Adverse selection can occur when higher risk individuals and businesses are more likely to purchase insurance than individuals and businesses that are lower risk. An insurer's viability might be threatened if it cannot control for this tendency. Overcoming information asymmetries is key to insurers risk selection and maintaining a pool of risk profiles. When insurers face data gaps or unreliable information, they are unable to determine the probability of an adverse event. If not overcome, these underwriting challenges can impair accurate risk assessments by insurers. This makes it difficult to set appropriate premiums and coverage terms, thereby undermining insurability.

Graphic 1

Source: Swiss Re Institute and Geneva Association¹⁶



¹⁴ Sam Gutterman, *What is Insurable? It Depends*, AM. ACAD. OF ACTUARIES (Apr. 11, 2025), <https://actuary.org/article/what-is-insurable-it-depends/#:~:text=Under%20either%20perspective%2C%20the%20availability,to%20constitute%20an%20insurable%20risk>.

¹⁵ Conor Lamb, *Industry Insight: How the Insurance Industry Assesses Risk to Remain Solvent and Keep Your Community Resilient*, ROYAL METEOROLOGICAL SOCIETY, <https://www.rmets.org/news/how-insurance-industry-assesses-risk-remain-solvent-and-keep-your-community-resilient/#:~:text=In%20general%2C%20risk%20can%20be,by%20the%20stochastic%20event%20set> (last visited Oct 14, 2025).

¹⁶ Swiss Re Inst., *Natural Catastrophes in Times of Economic Accumulation and Climate Change*, 2 SIGMA 1, 6 (2020), https://www.swissre.com/dam/jcr%3A9b947084-929d-41b9-a051-114e883a1294/sigma2_2020_en.pdf.

II. INCREASING THE UNDERSTANDING OF WHAT IT TAKES TO MAKE A RISK INSURABLE

A. THE UNDERWRITING PROCESS GENERALLY

This is an insurer's core process for assessing and accepting risks (or declining them). The typical underwriting process begins by screening the risk against various strategic underwriting criteria. Risks that do not meet these criteria are rejected.

Next, through a detailed, technical underwriting process, the underwriter aims to understand the risk in terms of exposure, hazard(s), and vulnerability. As part of this process, the underwriter considers various loss mitigation actions and insurance coverage alternatives to effectively manage the exposure if the risk is accepted. The final step in the process is to classify the risk, which determines the premium.

B. STRATEGIC UNDERWRITING & RISK APPETITE

The insurer's senior management and the board of directors establish strategic objectives to help guide risk selection. This allows insurers to make conscious decisions about which risks to accept (or not) to maximise long-term profitability. Profitability is a function of balancing premium and investment income against the claims incurred, the expenses needed to run the business, and the cost of capital.¹⁷ These strategic objectives will necessarily influence the underwriting process and decisions around insurability. While the specific strategic objectives may differ among companies, they are generally reflected in the following:

- **Business Strategy and Plan:**

The underwriting approach must align with the insurer's high-level business strategy and plan, as established by its senior management and board of directors. While the specifics of the plan will be unique to each insurer, they generally focus on generating long-term profitability and capitalising on opportunities by targeting (or avoiding) specific insurance industry segments (e.g., Life, P&C, Health), product lines, geographic regions, business sectors, and distribution channels.

- **Reinsurance Strategy:**

Insurers typically purchase a certain amount of reinsurance to protect their balance sheet against the risk of large or catastrophic losses. The availability and cost of reinsurance will affect an insurer's underwriting approach. Ultimately, how much risk they choose to retain versus transfer to a reinsurer is a strategic decision.

- **Risk Appetite:**

An insurer's risk appetite is a key strategic factor. It is influenced by factors such as the insurer's business strategy and plan, available capital, and reinsurance arrangements. It is typically articulated through a formal risk appetite statement that includes both qualitative and quantitative limits which define the types and levels of risk the insurer is prepared to accept. For example, an insurer might set a limit on the total amount of liability it is willing to underwrite in a particular flood-prone region.

Risks that align with the insurer's strategic underwriting and risk appetite then undergo a more granular assessment commonly referred to as technical underwriting.

¹⁷ Cost of capital in insurance is defined as "encompass[ing] several important elements. First, the cost of capital is a forward-looking concept: it is the return investors demand if they are to be induced to invest their funds. Second, the cost of capital is determined in capital markets and includes the notion of opportunity cost . . . Potentially, capital can be raised from worldwide capital markets, which may lower its cost. At the same time, investors will demand greater transparency about insurance activities which will increase costs. Finally, viewed as a levered investment vehicle, insurers continue to seek scale advantages . . . Lower cost of capital and more efficiently managed firms will have competitive advantages in the changing market landscape." Walter Kielholz, *The Cost of Capital for Insurance Companies*, 25 THE GENEVA PAPERS ON RISK AND INS. 4, 5-6 (2000), <https://link.springer.com/content/pdf/10.1111%2F1468-0440.00044.pdf>.

II. INCREASING THE UNDERSTANDING OF WHAT IT TAKES TO MAKE A RISK INSURABLE

C. TECHNICAL UNDERWRITING

Technical underwriting may involve multiple underwriters. Some insurers differentiate between “line” and “staff” underwriters with differing responsibilities. Technical underwriting involves the review of submissions as well as additional data described in more detail below (*i.e.*, risk engineering, construction data, cat models, and pricing). It also involves analysing the individual risk against portfolio accumulations and the underwriting guidelines. Lastly, the underwriter reviews contract language.

To accurately price the risk and set suitable policy terms, the underwriter’s assessment concentrates on three distinct yet interconnected factors. The first and possibly the most important factor is gaining a clear understanding of the exposure.¹⁸ In the context of property insurance, exposure refers to the asset to be insured such as a house, commercial property, or manufacturing facility. The underwriter’s exposure assessment will examine various aspects such as the location of the asset (*e.g.*, “is the asset situated in a floodplain or a wildfire-prone area?”), how it is constructed, its intended use, and its value. For larger, more complex commercial risks, insurers may engage risk engineers to contribute to the assessment.

Insurers are increasingly relying on drones, satellites, and other geospatial data. Artificial Intelligence (AI) is also being introduced to assist underwriters in their assessment process. An accurate exposure assessment is essential to ensure policyholders are charged a fair premium and receive appropriate coverage. For the insurer, it enables precise pricing that is sufficient to cover expected losses and expenses while still providing a satisfactory return on capital.¹⁹

The second factor is the hazard(s), meaning the potential source(s) of loss (a natural event, *e.g.*, flood, wind, fire). This necessarily means that the underwriter will rely on modelling and other analytical tools to assess the probability of an adverse event as well as its potential severity.

The third and final factor is vulnerability. Vulnerability is the ability or inability to withstand the impact of an adverse event and recover its original function afterwards. The underwriter will want to assess the asset’s susceptibility and the likelihood of damage if the hazard occurs.²⁰ Mitigation and resilience measures are relevant here. It is possible to be exposed without being vulnerable. For example, a building might be in a floodplain, but various measures and modifications to its structure and immediate surroundings could mitigate potential losses.

To carry out the technical assessment of the risk, the underwriter will generally go through the following steps:

1. Underwriting Policies/Guidelines

Underwriters follow guidelines as detailed in the insurer’s underwriting policies and guidelines. The governing policy establishes parameters and criteria to ensure more uniform, consistent and structured decision-making. Risks that fall outside the insurer’s underwriting policy are deemed uninsurable. The guidelines reflect the insurer’s strategic underwriting considerations discussed earlier (*i.e.*, business plan and strategy, reinsurance, and risk appetite). They are also influenced by personnel considerations and regulatory requirements. Without the necessary technical underwriting expertise, insurers will not underwrite certain risks. Moreover, without proper licensing and compliance with other regulatory requirements, some risks, no matter how attractive, may be off-limits.

¹⁸ John Goodman, *Insurance Exposure Simplified: Essential Risk Management for Insurance Professionals*, TOTAL CSR (June 20, 2025), <https://totalcsr.com/insurance-agency-blog/insurance-exposure-guide/>.

¹⁹ AM. ACAD. OF ACTUARIES, CATASTROPHE EXPOSURES & INSURANCE INDUSTRY CATASTROPHE MANAGEMENT PRACTICES (2025), https://www.actuary.org/wp-content/uploads/2025/06/Presentation_on%20Catastrophe_Exposures_061001.pdf.

²⁰ Lamb, *supra* note 15.

II. INCREASING THE UNDERSTANDING OF WHAT IT TAKES TO MAKE A RISK INSURABLE

2. Evaluate the Submission

An underwriter gathers various data points and information to accurately assess a risk. Some of this information may come from market research or be provided in the customer's application (or through an agent or broker acting on behalf of the customer). Information obtained from the customer generally requires full disclosure to prevent adverse selection and the risk of incomplete information affecting the risk assessment and pricing decision.

An insurer's actuarial team is a vital source of information and data. Among other things, the actuarial function uses various tools (e.g., actuarial tables) and techniques to provide underwriters with advice and insights on pricing decisions and overall portfolio trends. To effectively measure and manage catastrophe risks, underwriters turn to the firm's enterprise risk management function (ERM) for data and information from proprietary (or third-party) modelling and other advanced analytics. These tools can produce sophisticated outputs based on the insurer's portfolio by modelling an event, calculating its severity, estimating damage, and determining an insured loss.²¹ This is crucial for providing an accurate view of exposure and the appropriate risk margin for NatCat risks.²² The claims team will contribute any relevant historical claims data and loss ratios to the underwriter.

3. Develop Underwriting Alternatives

This is the most crucial step in the process, where the underwriter gathers all the information and data to determine an underwriting alternative. While the underwriter may accept a risk as-is, the underwriter may

return to the applicant, suggesting specific modifications as a condition of coverage. These modifications could include requiring risk control measures to lessen physical hazards, adjusting rates and policy limits, or revising the terms and conditions (e.g., increasing the deductible, altering the coverage, or adding exclusions for specific causes of loss). Depending on the outcome of the underwriting process, the insurer may reject an application. However, this outcome is undesirable because it results in underwriting expenses without corresponding premiums or commissions.

4. Risk Classification and Pricing

Assuming the underwriter understands the risk and has effectively managed the exposure, it is now time to set the premiums. The underwriter will evaluate the risk using the insurer's risk classification system. A risk classification system groups similar risks with comparable expected losses to determine averages, where appropriate. Additionally, insurers take the individual risk specific characteristics and measure expected losses for covered catastrophe perils such that it reflects items discussed earlier like exposure, hazard, and vulnerability. This step will require input from proprietary (or third party) models.²³ Misclassifications pose risks for the insurer, as premiums set too low may not cover losses and expenses, while premiums set too high could result in lost business to competitors.

Accordingly, an insurer's willingness – and, indeed, ability – to prudently insure a specific risk is influenced by many factors. Understanding these factors helps develop strategies and take actions to improve the insurability of these risks, as discussed below.

²¹ CATASTROPHE EXPOSURES & INSURANCE INDUSTRY CATASTROPHE MANAGEMENT PRACTICES, *supra* note 19.

²² AIG, *American International Group, Inc. 2025 Q2 – Results – Earnings Call Presentation*, SEEKING ALPHA (Aug. 7, 2025), <https://seekingalpha.com/article/4810415-american-international-group-inc-2025-q2-results-earnings-call-presentation>.

²³ AM. ACAD. OF ACTUARIES, RISK CLASSIFICATION STATEMENT OF PRINCIPLES (2014), <https://www.actuarialstandardsboard.org/wp-content/uploads/2014/07/riskclassificationSOP.pdf>

III.

ENHANCING THE RESILIENCE OF COMMUNITIES, ENTITIES AND INDIVIDUALS

There is no better way to increase insurability than to reduce risk.

Reduction of Risk = Lower Cost of Insuring the Risk

In setting forth this formula it must be noted that reducing the cost of insurance may mean a smaller increase in premiums upon renewal or even the difference between an insurer writing the risk. To explore this premise further let's examine one of the key factors behind the rising losses from NatCats: rapid urbanisation.

A. SIGNIFICANT FACTORS INCREASING LOSSES

Throughout most of human history, many people lived in rural communities. However, the United Nations (UN) estimates that in 2007, society quietly reached an extraordinary milestone: for the first time, a majority of the world's population resided in urban areas.²⁴ Urbanisation has grown across countries at all income levels and is expected to continue rising, especially as agriculture becomes mechanised in EMDEs. The transition to urban living has happened swiftly. In 1980, 39% of the global population lived in cities, with the majority in high-income countries.²⁵ By 2030, around 60% of the world's population is forecast to live in cities, with Delhi surpassing Tokyo as the world's largest city.²⁶

Furthermore, it is not only centuries-old metropolises, such as Delhi, that are expanding. New urban areas are rapidly emerging worldwide. In 2000, there were 371 cities with populations of 1 million or more. By 2018, the number of cities with at least 1 million inhabitants had grown to 548 and in 2030, a projected 706 cities will have at least 1 million residents. Most of the world's fastest growing cities are in Asia and Africa, and the growth can be staggering. For example, Dhaka, the capital of Bangladesh, increased from a population of less than 5 million in 1975 to over 33 million in 2020.²⁷

As countries urbanise, they tend to become wealthier. Moreover, urban areas in EMDEs generally have higher living standards, including better access to electricity, drinking water, sanitation, and fuel. The economic and quality-of-life value proposition is clear. We can, therefore, expect urbanisation in EMDEs to continue. As cities expand, we must focus on how and where cities are developed, built, and inhabited.

Urbanisation clearly presents opportunities for city residents, but it also creates risk, especially when the urban growth is rapid and unplanned. Infrastructure – the facilities, systems, and structures that power a city – is a key driver of economic opportunity, quality of life, and resilience. Yet, infrastructure is often a victim of underinvestment both in terms of maintaining existing infrastructure and building new infrastructure to support growth in an organised way. Infrastructure does not exist in isolation or at a removal in urban environments. It is above, below, and alongside all manner of structures.

Furthermore, infrastructure placement significantly influences where other development occurs. Forward-looking infrastructure investment is a known catalyst for economic growth. Similarly, risk-sensitive infrastructure investment should be viewed as a means to improve insurability in urban settings.

The location of new urban developments also affects insurability. A common result of rapid, often unplanned, urbanisation is development in hazard-prone areas, such as floodplains or unstable hillsides. Also, urban expansion into floodplains is not limited to EMDEs. For example, Houston, Texas, is the largest American city without zoning laws and has significantly expanded into flood zones.²⁸ Growth in these areas tragically increased the impact of Hurricane Harvey, which struck Houston in 2017. Sensitivity to development in flood zones is especially critical because urbanisation inherently converts natural, absorbent land into impermeable surfaces, thereby exacerbating the impact of heavy rainfall. Rapid urbanisation also increases landslide risk similarly. Specifically, development affects water flow above and below ground, and structures can affect the

²⁴ See, e.g., U.N.-HABITAT, ANNUAL REPORT 2007 (2008), <https://unhabitat.org/annual-report-2007>; U.N. DEPT OF ECON. & SOC. AFFAIRS (DESA), UN SYSTEM TAKS TEAM ON THE POST-2015 UN DEVELOPMENT AGENDA, SUSTAINABLE URBANIZATION 3 (2018), https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/18_urbanization.pdf.

²⁵ See, U.N. DESA, POPULATION DIV., WORLD URBANIZATION PROSPECTS: THE 2018 REVISION 21 (2019), <https://population.un.org/wup/assets/WUP2018-Report.pdf>.

²⁶ See *Id.* at 11.

²⁷ *Id.* at 75–78.

²⁸ See, Yilun Cheng & Caroline Ghisolfi, Exclusive: How Major Houston Homebuilders Cash in on Risky Land in FEMA Floodplains, HOUSTON CHRONICLE (Sep. 15, 2025), <https://www.houstonchronicle.com/news/investigations/article/floodplain-homebuilders-lennar-perry-meritage-20403734.php>.

III. ENHANCING THE RESILIENCE OF COMMUNITIES, ENTITIES AND INDIVIDUALS

soil's load-bearing capacity. Furthermore, the removal of vegetation and trees for urban development destabilises soil and reduces its water absorption capacity, creating a recipe for mudslides. Bukavu, in the Democratic Republic of Congo (DRC) is a clear example of this phenomenon. Bukavu's population grew from approximately 100,000 in 1970 to 1.2 million today. The city has expanded onto sloping terrain, increasing its susceptibility to landslides.²⁹ Meanwhile, the DRC's insurance penetration rate is projected to be 0.71% of GDP in 2025.³⁰

A risk-based approach to land-use planning, combined with enforcement of building codes, is crucial to public health, safety, and resilience. However, this work can understandably seem less essential to local governments with limited budgets. It is therefore important to acknowledge its full value. Urban planning and resilient building codes reduce physical risk and thereby enhance insurability. Actions often regarded as additional costs could instead be seen as investments in insurability, creating opportunities for the private sector to provide insurance protection.

The work of city planning and building code adoption and enforcement is primarily the role of local governments. However, the insurance industry can provide technical assistance, highlighting the benefits of certain construction techniques and the relative merits of siting urban development in a given location. It can incentivise best practices. Notably, the UN's Sustainable Development Goals include making cities safe, sustainable, and resilient.³¹ Resilient cities are insurable cities. The insurance industry is well placed to support this global objective.

Urbanisation is one example of evolving risks that can make insurability a problem, but there are many such examples – including evolving risks in rural areas, ageing infrastructure and others. The critical point is that by carefully examining the component parts of a risk, holistic action plans and strategies can be developed to help reduce the risk – or at least slow the pace at which the risk grows.

B. ADDRESSING THE PROBLEM OF AFFORDABILITY

Reducing risks, as described above, is clearly important to closing protection gaps. But even taking these prudent steps, the harsh reality is that the losses from NatCats and the risk of future loss from NatCats is high. Accordingly, the cost of insurance is high – and often truly unaffordable to those who are exposed. At other times, the cost of insurance compared to the cost of other needs and necessities is such that coverage is de facto unaffordable. We must address this issue of affordability if we are to make significant progress in closing protection gaps.

As with many protection gap issues, making insurance coverage more affordable for prospective policyholders requires a comprehensive, multi-faceted approach. Addressing underlying risk reduction, product design, distribution, service costs, proportionate regulation,

and risk/premium subsidisation can each play an important role in improving affordability.

The most effective way to make insurance coverage more affordable for consumers and businesses is to reduce the nature or scope of the underlying risk.

Reducing the nature or scope of the peril typically decreases the frequency and/or severity of the associated peril. This, in turn, can significantly influence an underwriter's assessment of both the insurability of a particular risk and its price. While there are certainly opportunities for regulators and insurers to collaborate in educating consumers and businesses about strategies they can use to lower their risk, governments are best positioned to carry out broader efforts that either reduce risk or improve access to data for more accurate risk assessment.

²⁹ See, Bryony Cottam, *Landslides Are Pulling the Congolese City of Bukavu Apart*, GEOGRAPHICAL (Mar. 14, 2023), <https://geographical.co.uk/science-environment/landslides-are-pulling-the-congolese-city-of-bukavu-apart>.

³⁰ Ronsard Luabeya, *DRC: Insurance Market Set to Surpass \$1B within 10 Years, Regulator Says*, BANKABLE (Mar. 25, 2025) <https://bankable.africa/en/news/2503-958-drc-insurance-market-set-to-surpass-1b-within-10-years-regulator-says>, [edited to English by Ola Schad Akincho].

³¹ G.A. RES. 70/1, at 14 (Oct. 21, 2015).

III. ENHANCING THE RESILIENCE OF COMMUNITIES, ENTITIES AND INDIVIDUALS

These include:

- **Building-to-Resilience:** Promote and incentivise affordable standards for roofing, floodproofing, and wind anchoring.
- **Early Warning and Contingency Planning:** Connect businesses to weather alerts and preparedness playbooks.
- **Public Hazard Data:** Invest in open, high-resolution flood, cyclone, and seismic maps; expand weather-station networks and share data.

CASE STUDY – DATA ACCESS AND SHARING

Open Government Data Enables Urban Flood Insurance (Nigeria, Lagos)

In 2022, the Lagos State Government, supported by the World Bank and United Kingdom Foreign, Commonwealth & Development Office (FCDO), launched an Open Geospatial Data Initiative covering 1,200 urban flood zones. The resulting hydrological dataset allowed insurers to model risk more accurately, reducing technical premiums by 25 per cent and enabling the city's first parametric flood policy covering 25,000 households. The initiative demonstrates how investment in open data directly increases insurability of urban infrastructure.

Sustainability requires institutional funding for data maintenance, ideally embedded within municipal budgets.

- **Data-Sharing Frameworks:** Anonymised claims and exposure databases through industry associations to enhance actuarial accuracy and lower risk premiums.

Then, insurers and brokers must continue to develop insurance products suitable for the specific risks in the relevant market rather than simply adapting products from other jurisdictions. For example, does the product cover the most essential assets associated with the relevant risk, or does it include coverage, terms and conditions that are unnecessary or irrelevant to the market or risks the insured actually faces? Clear policy wordings that provide appropriately tailored benefits can not only reduce premiums but also increase trust among the insurance-buying public and encourage uptake by consumers and businesses.

Other product design considerations include:

- **Microinsurance:** Small sums insured, with clear exclusions and short policy wording.

CASE STUDY – INNOVATIVE PRODUCT DESIGN

Weather-Index Microinsurance for Smallholder Farmers (Kenya)

Kenya's mobile-based rainfall-index insurance, developed by Acre Africa and Pula with support from Safaricom and the World Bank's KfW-funded Agriculture Risk Facility, has insured over 1.3 million farmers since 2021 at average premiums of \$3–5 per season. Payouts are automatically triggered via M-Pesa when rainfall thresholds, calibrated using CHIRPS and TAMSAT datasets, are breached, reducing basis risk and building farmer confidence. The model informed IDF's Tripartite sovereign-meso frameworks in East Africa. Sustaining this progress will require multi-year donor support and integration with agricultural credit programmes.

- **Group/Community Policies:** These include families, communities, and Micro, Small and Medium Enterprises (MSMEs) associations to spread risk and lower anti-selection and distribution costs.
- **Usage-Based and On-Demand:** Pay-as-you-drive motor insurance, per-trip accident cover for riders and drivers, short-term travel or device protection.
- **Parametric/Index Products for Climate and Catastrophe Risks:** Rainfall, cyclone, flood, earthquake triggers pay promptly without loss adjustment, reducing costs and moral hazard.
- **Examples of products that incentivise risk reduction:**
 - Bundle index insurance with inputs, credit, and agronomic advice; calibrate to local phenology and reduce basis risk using denser weather data and satellite products.
 - Provide meso-level coverage for cooperatives, agribusinesses, and lenders, including protection for farmers.
 - Premium discounts for drought-resistant seeds, water harvesting, raised plinths, or flood-proof storage.

CASE STUDY – PREMIUM SUBSIDY

Climate Resilience Subsidy for Fishing Community (Vanuatu)

In 2023, UNDP and the Pacific Community (SPC) piloted a climate-resilience premium-subsidy scheme in Vanuatu covering 8,000 fishers. Donor-funded premium support was tied to adoption of cyclone-resilient gear and sustainable fishing practices. Uptake tripled within a year, and the improved risk data enabled insurers to refine underwriting for coastal livelihoods. This conditional-subsidy model demonstrates how affordability incentives can drive both behavioural change and market formation. Future iterations should explore blended-finance approaches to transition from direct subsidies to insurer capitalisation.

- **Deductibles That Do Not Dilute Value:** Keep premiums low while ensuring adequate coverage.
- **Flexible, High-Frequency Micro-Premiums:** Daily, weekly, or monthly premiums, with grace periods aligned to harvests or other cash flow seasonality considerations.
- **Premium Collection via Mobile Money:** USSD/SMS, airtime, utility bills, or platform wallets; enable auto-deduction and reminders.
- **Premium Financing/Instalments:** Using alternative data for credit scoring; savings-linked or bundled with microcredit to smooth liquidity.

Customer acquisition costs can also be a significant factor in premium expenses. While providing consumers and businesses with access to competent insurance advisors is essential, especially for more complex products, exploring innovations in product distribution or leveraging existing, trusted, and wide-reaching distribution channels can significantly reduce distribution costs and boost uptake.

Some potential avenues to consider regarding product distribution include:

- **Partnering:** Collaborating with micro-finance institutions (MFIs), savings and credit cooperative organisations (SACCOs), farmer cooperatives, input suppliers, mobile network operators, e-commerce platforms, payroll/HRTech for MSMEs, utilities, and post offices.

- **Embedding:** Embedding insurance into core, point-of-sale transactions, e.g. seed/fertiliser sales for crop insurance.
- **Training:** Training community agents as educators and first-line support and paying simple, activity-based incentives, instead of just commissions on sales.

Keeping policy and claims service costs low while building trust and credibility in an insurer's customer and claimant service processes can create a dilemma for insurers. Nevertheless, the opportunity exists to leverage technological advancements to deliver services effectively and efficiently without compromising service quality.

Potential drivers of service efficiency include:

- **Digital onboarding:** Electronic know-your customer (e-KYC), remote identity verification, e-signatures; simple enrolment journeys in local languages.
- **Lean Claims:** Claim-by-phone/photo, mobile money payouts, biometrics, and AI-assisted fraud checks. For Agri/CAT risks, use satellites, drones, and weather stations for remote assessment and/or in conjunction with parametric cover.
- **Standardisation:** Standardised products and wording to reduce legal and administrative overhead and support straight-through processing.
- **Open/Accessible Data:** Open insurance APIs and interoperable payment/KYC frameworks to prevent duplicated infrastructure.

Proportional and innovation-friendly regulatory policy is an essential component of ensuring lower cost of cover. As discussed below overly restrictive legal and regulatory provisions (e.g., FDI limitations, local reinsurance cession requirements, data localisation) can impede the deployment of capital to a market and, consequently, the availability of products and services to consumers and businesses alike.

To foster the development of robust insurance markets, governments and insurance regulators should consider:

- **Microinsurance Frameworks:** Simplified licensing, disclosure, and distribution rules; allow non-traditional channels in the product distribution ecosystem.
- **Parametric Infrastructure:** Recognition of parametric products in law and setting fair conduct standards (clear triggers, transparent data sources, grievance redress).

III. ENHANCING THE RESILIENCE OF COMMUNITIES, ENTITIES AND INDIVIDUALS

- **Proportional Solvency and Reporting:** For low-risk, small-sum covers; enable e-KYC, remote onboarding, and e-signatures.
- **Regulatory Sandboxes:** Fast-track pilots in select lines and parametric products.
- **Proportional Consumer Protection Regimes:** Use plain-language policies, cooling-off periods, mandated claims turnaround times, and alternative dispute resolution mechanisms to foster trust.
- **Competition:** Promote new, well-capitalised entrants and InsurTechs; support cross-border expansion through regional licensing harmonisation where feasible. Avoid excessive compulsory cessions to undercapitalised state reinsurers; facilitate access to diverse global reinsurance markets to lower cost.
- **Pooled Purchasing for SMEs:** Business associations negotiate group rates and benefits.
- **Guarantee Funds:** Build trust to boost uptake and distribute fixed costs across larger pools.
- **Alternative Capital:** Facilitate CAT bonds and parametric swaps.
- **Tax Relief:** Reduce or waive premium taxes/stamp duties on micro/SME premiums and claims; remove parafiscal levies that bloat prices. Allow pre-tax catastrophe reserves and prudent FX management to reduce reinsurance dependency and currency-mismatch costs.

It may be that, even after progress has been made in the risk reduction, product, distribution, service, and regulatory areas, coverage is either not available from private market participants or is not broadly available at affordable rates. Then – and only then – would it be advisable for a government to consider public-private risk-sharing programmes and/or targeted subsidies for insureds. These initiatives can lower the cost of capital, making a market more attractive, or reduce the premium cost. Some options for consideration include:

- **Public-private catastrophe backstops:** Governments or development partners provide excess-of-loss reinsurance layers for extreme events, lowering retail premiums.
- **Regional risk pools:** Join or emulate regional risk pools such as the African Risk Capacity (ARC) or the Caribbean Catastrophe Risk Insurance Facility (CCRIF) to diversify catastrophe risk and secure more affordable reinsurance.

CASE STUDY – PREMIUM SUBSIDY

Regional Risk Pool Supporting Sovereign Resilience (Caribbean-CCRIF)

Context: Small island states pooled risk to access affordable catastrophe insurance.

Impact: Rapid payouts after disaster bolstered fiscal resilience and cut aid dependency.

Lesson: Pooling and scale are essential for small economies facing systemic risk.

Regional risk pools such as ARC, CCRIF, and SEADRIF also illustrate how proportionate regulation and pooled reinsurance can reduce cost and increase domestic insurer participation. Lessons from these models should inform future supervisory capacity-building.

- **Co-finance:** Co-financing of systemic lines with positive externalities (e.g., crop, livestock).
- **Subsidies:** Means-tested premium subsidies for consumers.
- **Buy-Downs:** Premium buy-downs for micro and small enterprises, especially for first-time buyers and climate perils.
- **Vouchers:** Linked to risk-reduction actions, e.g., flood barriers or fire safety upgrades, rewarded with subsidies and premium discounts.
- **Credit-Linked Incentives:** Lower borrowing rates for insured SMEs; public guarantee schemes that reward insured borrowers.

As policymakers consider undertaking efforts to foster robust insurance markets and thereby increase the availability of insurance coverage at affordable rates, some pitfalls to avoid include poorly targeted, long-term subsidies and mandatory reinsurance cessions that increase costs and onshore risk.

In summary, each participant in the insurance ecosystem has a role to play in developing the market and reducing premium costs.

- **Governments:** Invest in hazard and weather data; offer catastrophe backstops; reduce premium taxes; establish microinsurance regulations; co-finance climate premiums for SMEs; enforce resilient building and infrastructure standards; embrace land-use planning.

III. ENHANCING THE RESILIENCE OF COMMUNITIES, ENTITIES AND INDIVIDUALS

- **Regulators:** Enable digital channels and parametric covers; adopt proportional rules; run sandboxes; strengthen consumer protection and guarantee funds are available.
- **(Re)insurers:** Develop straightforward, modular products; implement digital onboarding and claims processes; collaborate with platforms; offer parametric layers and usage-based options; deliver risk engineering services.
- **DFIs/Donors/Climate Funds:** Offer concessional reinsurance and premium buy-downs; finance data infrastructure; support capacity building and pilot evaluations.
- **Banks/Mobile Network Operators (MNOs)/Platforms:** Embed insurance in existing products; offer premium financing and revenue-linked payments.
- **Business Associations/Co-Ops:** Aggregate members for group policies; co-design benefits; run safety programs.

By addressing each of these components simultaneously, premium costs can be significantly reduced while enhancing value and trust for consumers and businesses in emerging and developing markets.

In sum, each participant in the insurance ecosystem has a role to play in market development and premium cost reduction:

- **Governments:** Invest in hazard and weather data; offer catastrophe backstops; reduce premium taxes; set microinsurance rules; co-finance SME climate premiums; enforce building/road safety standards.
- **Regulators:** Enable digital channels and parametric covers; adopt proportional rules; run sandboxes; strengthen consumer protection and guarantee funds.
- **(Re)insurers:** Build simple, modular products; digital onboarding/claims; partner with platforms; offer parametric layers and usage-based options; provide risk engineering.
- **DFIs/Donors/Climate Funds:** Provide concessional reinsurance and premium buy-downs; fund data infrastructure; support capacity building and pilot evaluations.
- **Banks/MNOs/Platforms:** Embed insurance in existing products; offer premium financing and revenue-linked payments.
- **Business Associations/Co-Ops:** Aggregate members for group policies; co-design benefits; run safety programs.

By simultaneously addressing each of these components, premium costs can be brought down materially while improving value and trust for consumers and businesses in emerging and developing markets.

IV.

THE ROLE OF LAWS AND REGULATIONS

As previously discussed in detail by the IDF in its paper, *Insurance Development in Emerging Markets Report on the Role of Public Policy and Regulation*³², insurance is a heavily regulated sector, influenced by public and private law rules including sector-specific and general regulations. It is now widely accepted that laws and regulations play a crucial role in closing protection gaps, including in increasing insurability.

Many insurance regulators, supervisors, and other government entities actively work to close protection gaps. Closing protection gaps is now a top priority for the International Association of Insurance Supervisors (IAIS) and many other regulatory bodies.³³ In the Philippines, insurance penetration was below 2%, but after the national disaster agency and insurers launched a public campaign using schools, radio, and local councils to demonstrate how insurance complements preparedness, understanding of insurance increased by 40%, and enrolment in microinsurance schemes rose significantly.³⁴ Further, in India, the government subsidised 50% of premiums, including reductions for risk-reduction practices, for farmers who previously found insurance unaffordable despite recurring droughts. Consequently, enrolment in relevant coverages doubled due to the subsidy and discounts, and private insurers gained the confidence necessary to expand into the market.³⁵

In Europe, the European Insurance and Occupational Pensions Authority (**EIOPA**) has created a dashboard that tracks insurance protection gaps for natural catastrophes across 30 European countries.³⁶ This dashboard reveals areas where some countries are actively working to close these gaps. For example, Iceland has created a public

institute, the Natural Catastrophe Insurance of Iceland (**NTI**), which insures properties against natural disasters. NTI coverage is compulsory for all buildings and other property with fire coverage.³⁷

In the United States, several states have created FAIR Plans, which are insurers of last resort established by statute to provide basic property insurance when no other option is reasonably available. When creating government sponsored residual insurers, it is critical that such insurers do not crowd out a functioning private market. For example, the U.S. state of Connecticut operates a FAIR Plan that offers limited coverage at risk-based prices.³⁸ This ensures the FAIR Plan does not interfere with a functioning private market and only makes coverage available where a private market truly does not exist.

One of the strongest demonstrations of regulatory leadership regarding protection gaps is the IAIS and World Bank input paper to the G-20 sustainable finance working group that was presented in July 2024. This paper called for a wide community of stakeholders, including insurance supervisors to take significant steps to increase the insurability of risks, advance the use of insurance solutions (including parametric and index products) and enhance risk literacy. We urge you to read this compelling paper.³⁹

Insurance-related laws and regulations are indeed critical to providing an enabling environment for the insurance sector and the consumers it serves. However, insurance regulations (or other laws) can sometimes obstruct or even prevent insurers from offering their products and services to those in need.

³² *Insurance Development in Emerging Markets: The Role of Public Policy and Regulation*, INS. DEV. FORUM (June 2022), https://www.insdevforum.org/wp-content/uploads/2022/06/Emerging-markets_WEB.pdf.

³³ See INT'L ASS'N OF INS. SUPERVISORS, A CALL TO ACTION: THE ROLE OF INSURANCE SUPERVISORS IN ADDRESSING NATURAL CATASTROPHE PROTECTION GAPS (Nov. 2023), <https://www.iais.org/uploads/2023/11/IAIS-Report-A-call-to-action-the-role-of-insurance-supervisors-in-addressing-natural-catastrophe-protection-gaps.pdf>.

³⁴ See Section VI(D).

³⁵ *Id.*

³⁶ *Dashboard on Insurance Protection Gap for Natural Catastrophes*, EIOPA (Nov. 26, 2024), https://www.eiopa.europa.eu/tools-and-data/dashboard-insurance-protection-gap-natural-catastrophes_en?prefLang=sv.

³⁷ See generally NTI, *Natural Catastrophe Insurance of Iceland*, ISLAND.IS <https://island.is/en/o/nti> (last visited Oct. 14, 2025).

³⁸ CONNECTICUT FAIR PLAN, <https://www.ctfairplan.com/index.html> (last visited Oct. 29, 2025).

³⁹ See INT'L ASS'N OF INS. SUPERVISORS, G20 SUSTAINABLE FINANCE WORKING GROUP INPUT PAPER: IDENTIFY AND ADDRESS INSURANCE PROTECTION GAPS (July 2025), <https://www.iais.org/uploads/2025/07/G20-SFWG-input-paper-identify-and-address-insurance-protection-gaps.pdf>.

A. ADDRESSING REGULATORY BARRIERS & IMPEDIMENTS

Regulatory impediments largely fall into two categories: 1) market entry restrictions and 2) consumer protection rules that limit the ability of insurers to deliver products that best address evolving risks. At times, these impediments are driven by excessive conservatism in regulation, or the failure of regulation to keep pace with technological and others changes in the industry, e.g., 20th century laws and regulations being applied to a 21st century industry.

There are also an increasing number of cases involving attempts to protect local markets from outside competition. These rules are at times logical in principle with motivating rationales including: safeguarding domestic jobs and industries from foreign competition, fostering growth in “infant industries” until they are mature enough to compete, ensuring national security and resilience by reducing reliance on foreign goods and services, and preventing perceived unfair trade practices. However, these arguments fall to scrutiny in the context of NatCat insurance. Insurance is a balance sheet business. It requires significant capital and specific expertise to cover the risk of loss. This is often not available in domestic markets.

Market entry restrictions take many forms. Restrictions on foreign ownership of subsidiaries and other barriers to the establishment of branches, subsidiaries, and operations also exist.⁴⁰ These barriers restrict insurers’ ability to deliver their full economic benefit by limiting local underwriting, mitigation expertise, and direct services. Opportunities for innovation become more limited. Whilst the desire to develop a local market is important, an excessive focus on domestic risk retention could hinder economic development and harm consumers by restricting the ability to transfer and diversify risks internationally.⁴¹

Reinsurance merits a spotlight because protectionist policies often specifically inhibit reinsurance deployment into an EMDE. Reinsurance barriers can include prohibitions on reinsuring specific lines of business,⁴² measures favouring local and/or state-owned reinsurers,⁴³ local collateral requirements, and restrictions on ownership.⁴⁴ Yet unfettered access to reinsurance is precisely what can help EMDE insurers to prosper and increase insurability in their markets.

CASE STUDY – GOVERNMENT & REGULATORY BARRIERS

Regulatory Fragmentation Hindering Product Innovation (Nigeria)

Nigeria’s insurance regulator (NAICOM) historically maintained tariff controls and rigid local-capacity rules that limited innovation in flood and index products. As a result, insurers avoided offering cover in high-risk zones, widening the protection gap. Ongoing 2024 reforms introducing flexible reinsurance approvals and regulatory sandboxes are beginning to reverse this trend. IDF’s Inclusive Insurance Working Group has supported proportional-regulation dialogue aligned with these reforms.

Access to the international reinsurance market helps smaller insurers compete with larger insurers by offering more options for balance-sheet protection. This, in turn, provides greater coverage choices for local consumers and businesses at a reasonable cost. Therefore, allowing domestic insurers full access to the range of options offered by the international reinsurance market accelerates the growth of domestic insurers – both in terms of employment and policies written. Moreover,

⁴⁰ Several jurisdictions, including Algeria, Azerbaijan, Bangladesh, Ethiopia, Egypt, India, Kenya, United Arab Emirates, Saudi Arabia, Cambodia, Tanzania, Thailand, and the Philippines limit the ability of alien insurers, reinsurers and general investors from owning a stake in local insurers or reinsurers or establishing a local branch of an alien insurance or reinsurance business. See GLOB. REINSURANCE F., REINSURANCE TRADE BARRIERS AND MARKET ACCESS ISSUES WORLDWIDE 7, 8, 9, 11, 14, 18, 20, 24, 25, 27, 30, 36, 48 (Sept. 2025), https://www.grf.info/images/Publications/TradeBarriers/GRF_Trade_Barriers_Table_-_9_September_2025.pdf [hereinafter GRF].

⁴¹ Letter from the American Council of Life Insurers (ACLI) to the Chair of the Nepal Insurance Authority, dated June 19, 2025.

⁴² GRF, *supra* note 40, at 6 (for example, the Conference Interafricaine Des Marches D’Assurances prohibits foreign reinsurers from reinsuring accident, health, life and death, motor liability and land vehicles except under certain permitted circumstances).

⁴³ For example, in Belarus, Gabon, Bangladesh, Cambodia, and the Philippines, state-owned reinsurers and/or regional reinsurance groups are entitled under regulation to receive either compulsory cessions (i.e., such reinsurers must provide reinsurance coverage for a portion of each reinsurance policy obtained by a local insurer). GRF, *supra* note 40, at 6, 10, 25, 27, 44, 52.

⁴⁴ Several jurisdictions, including Algeria, Azerbaijan, Bangladesh, Ethiopia, Egypt, India, Kenya, United Arab Emirates, Saudi Arabia, Cambodia, Tanzania, Thailand, and the Philippines limit the ability of alien insurers, reinsurers and general investors from owning a stake in local insurers and/or reinsurers or establishing a local branch of an alien insurance and/or reinsurance business. GRF, *supra* note 40, at 7, 8, 9, 11, 14, 18, 20, 24, 25, 27, 30, 36, 48.

IV. THE ROLE OF LAWS AND REGULATIONS

by excluding or limiting the participation of international reinsurers, countries miss out on the benefits of expertise, experience, analytics, and innovative insurance products these reinsurers can provide.⁴⁵ Such knowledge sharing can also be beneficial to the local industry.

A fundamental purpose of reinsurance is to spread risk across different regions, ensuring it isn't concentrated in just one country. When a nation faces significant destruction from a major NatCat, its government incurs additional emergency response costs; civil and municipal services may be disrupted; its economy might encounter setbacks; and its citizens could endure lasting physical and emotional trauma. This difficult time is *precisely* when a country needs capital flowing in from beyond its borders. This is what reinsurance does. Contrary to the protectionist view, the involvement of foreign insurers and reinsurers in local markets strengthens national security and resilience by rapidly injecting funds into countries during moments of peril. As climate-related events are expected to increase, geographic diversification will become even more vital for carriers exposed to extreme weather.

Regulatory barriers to insurability can also be specific to certain products. For instance, several EMDEs do not recognise parametric products as "insurance" under their regulatory frameworks, which creates uncertainty about whether such products may be offered in these jurisdictions and, if so, how they would be regulated.⁴⁶ Unfortunately, this hinders innovative and more affordable parametric products from reaching the market.

Naturally, regulatory obstacles are also present in developed markets. California's regulatory regime has discouraged insurers from using actuarially justified prices and prohibited the use of forward-looking cat models until very recently. Consequently, the insurability of catastrophe risk in California, particularly for homeowners' insurance, reduced and insurers left the market.

The conclusion is therefore clear: overly restrictive or conservative regulatory measures, regardless of their form, hinder capital deployment. When capital is restricted, insurability is reduced.

CASE STUDY – GOVERNMENT & REGULATORY BARRIERS

Licensing Bottlenecks for Index Insurance (Tanzania)

In Tanzania, multi-year licensing delays for parametric products, caused by applying indemnity-based rules to index insurance, deterred investment from donor-backed facilities. Establishing a 'Parametric Recognition Framework' within regulatory codes could shorten approval times by 12–18 months and expand agriculture insurance penetration by up to 30 per cent. IDF can share standard-setting examples from Mexico and India to support such reform.

⁴⁵ Request for Consideration to Jonathan Dixon, Secretary General of the International Association of Insurance Supervisors Regarding Growing Trend to Require Localization of Reinsurance Risks by The Coalition of Reinsurance Education 2.

⁴⁶ Luc Bigel, *Global Parametric Insurance Law Guide*, DLA PIPER 7-10, 42-43, 55-56 (Oct. 24, 2023), <https://www.lexology.com/library/detail.aspx?g=204fd22b-f850-40c1-a5f1-fc2a1c3fc720>.

B. INCENTIVISE RISK MITIGATION VIA REGULATION

As noted above, and addressed in other publications, insurance related laws and regulations are critical to building robust insurance markets which can offer the required insurance products at risk-based prudentially sound prices. We also know that reducing the risk of loss from NatCats is an important step in making insurance more affordable – hence increasing insurability. Little has been discussed about how insurance regulation can help incentivise risk mitigation. We believe that there is much more that can be done in this area. Although we cannot explore this topic fully in this paper, we believe consideration should be given to how regulation can help promote loss mitigation/loss avoidance.

Risk-based regulatory frameworks are built on a total balance-sheet approach, where capital resources are the excess of assets over liabilities, taking into account *ad hoc* rules to acknowledge differences in asset quality. Capital requirements are calibrated to reflect the insurer's underlying risks, enabling it to cover unexpected losses. However, experience has shown that insurance failures are often due to a combination of solvency issues and management decisions.⁴⁷ Consequently, risk-based regulation also emphasises risk management, setting not only expectations and obligations, but also providing incentives for sound risk management.

Any assessment of how regulation can support insurability must begin with the objectives of prudential regulation. These typically include policyholder protection, financial stability and market competitiveness. NatCat insurability and insurance penetration have macroeconomic effects by enhancing resilience and aiding recovery after a catastrophic event, with strong empirical evidence showing a correlation between insurance coverage and the impact on GDP.⁴⁸ However, insurability and penetration have not been fully discussed as standalone objectives of regulation, perhaps because prudential regulation mainly focuses on insurers' financial health and, consequently, the reliability of claims payment to current policyholders. Whether insurability and penetration become independent regulatory objectives or remain part of a broader prudential goal, integrating them into the

regulatory framework should have a positive effect in the future, both by raising awareness and by adapting regulatory approaches to the "new normal."

One of the fundamental elements of risk-based regulation is achieving a proper balance between premium and risk, where insurers set premiums that reflect the level of risk they assume. Therefore, risk mitigation can result in lower premiums or, as noted above, a smaller increase in premiums upon renewal or even be the difference between an insurer being willing to write the insurance or not. Premiums for varying risks are determined, based on available evidence, to cover expected losses and the cost of capital (including unexpected losses), up to a certain confidence level. Premiums can then be reduced if risks are effectively lessened or transferred through the use of risk mitigation techniques.

The significance of insurers' role as "risk signallers" cannot be overstated. Limiting insurers' ability to charge premiums proportional to the risks they take on undermines this vital function.

Another equally important aspect of risk-based regulation is the balance between capital charges and the risks assumed. Not all risks are equal. Neighbouring homes facing the same risks may have very different risk profiles depending on the mitigation measures the homeowners have implemented. While this may be reflected in the premium charged to each homeowner, they are treated the same in terms of insurers' regulatory capital charges.

Where risks are reduced or effectively transferred, a capital benefit should be realised. However, no regime currently explicitly recognises how climate-related adaptation measures can be considered when setting capital charges, and standardised approaches to determine capital requirements for underwriting risks lack necessary detail to acknowledge that taking adaptation measures can lead to risk reduction. The absence of evidence or standardisation of the impact of such measures is seen an obstacle to recognition. Therefore, exploring standardised mechanisms accessible to all insurers should be considered.

⁴⁷ See EUR. INS. & OCCUPATIONAL PENSIONS AUTH., FAILURES AND NEAR MISSES IN INSURANCE: OVERVIEW OF THE CAUSES AND EARLY IDENTIFICATION 4–5 (2018), [https://register.eiopa.europa.eu/Publications/Reports/EIOPA_Failures_and_near_misses_FINAL%20\(1\).pdf](https://register.eiopa.europa.eu/Publications/Reports/EIOPA_Failures_and_near_misses_FINAL%20(1).pdf).

⁴⁸ See, e.g., Goetz von Peter et al., *Unmitigated Disasters? New Evidence on the Macroeconomic Cost of Natural Catastrophes*, 394 BIS WORKING PAPERS (Dec. 7, 2012), <https://www.bis.org/publ/work394.pdf>.

IV. THE ROLE OF LAWS AND REGULATIONS

A potential way forward that could benefit all insurers and markets is to establish a rating system based on location of the risk, such as high-risk areas versus low or medium-risk areas. This would be similar to the approach already taken, for example, when allocating a capital charge to corporate bonds (the higher the rating, the lower the charge), and could easily be applied to underwriting risk, thereby reducing the capital charges for more resilient risks. Such reductions in capital charges would, in turn, allow insurers to lower insurance costs.

A similar proposal, based on current practices in the United States, would involve assigning a lower capital charge to risks that meet specific standardised requirements for example, the FORTIFIED standards. This approach recognises that investing in adaptability decreases risk, which is why some insurers offer discounts if these standards are met. If premiums are primarily influenced by underlying risk, then a price reduction should, by extension, lead to a decrease in capital charges, since these are driven by risk levels.

Insurers can also play a positive role in improving go-forward insurability after a claim by adopting a “build back better” approach, a concept introduced by the **Sendai Framework** in 2015.⁴⁹ They could view recovery, rehabilitation and reconstruction after a disaster as vital opportunities to build back better, including by integrating disaster risk reduction into development measures.

In other words, using the funds that insurers will pay after a claim in a way that reduces the severity or frequency of claims or both, could, in turn, influence future premiums and possibly the underwriting insurer’s capital charges. Insurers have begun offering such coverage, but it can also lead to higher rebuilding costs and, consequently, higher premiums, which insureds may be hesitant to accept.

Of course, regulatory incentives should be evidence based. Demonstrating the positive effects of risk reduction can be difficult. Still, progress is possible through methods such as data pooling or other means of providing credible data, bearing in mind that “the perfect shouldn’t be the enemy of the good.” Regulators could begin with a gradual recognition or phased introduction of these capital benefits.

We have been concentrating on the prudential regulatory framework here, addressing issues such as adaptation measures and rehabilitation plans. However, we must recognise that adaptation is costly, and there should be scope for public policies beyond sectoral legislation, such as tax incentives, to ease these costs as a way to incentivise the right behaviour in society. This is a precondition for insurance availability and affordability, based on the assumption that, if everything remains unchanged, the insurability of certain risks will become impossible. This necessitates a holistic approach that, to date, is absent.

⁴⁹ U.N. OFF. FOR DISASTER RISK REDUCTION [hereinafter UNDRR], SENDAI FRAMEWORK FOR DISASTER RISK REDUCTION 2015–2030 (Dec. 18, 2019), <https://www.undrr.org/media/16176/download?startDownload=20251030>.

C. CONCLUSION

In conclusion we suggest the following regulatory measures and realignment of priorities:

- **Insurability as a Regulatory Objective:** Consider establishing insurability as a standalone objective of insurance regulation. This will help raise awareness of the upcoming challenges and the consequences for all parties, public and private, if they fail to adapt.
- **Insurance Market Development as a Regulatory Objective:** Promoting increased insurance penetration, attracting adequate insurance and reinsurance capital, and enhancing underwriting and technological expertise.
- **Incentive Models:** Develop an incentive model within the regulatory framework that is both risk-based and evidence-based.
- **Embedded Consequences:** Incorporate the consequences of impact underwriting – through adaptation measures to reduce risk – by insurers into the regulatory framework; specifically, recognise the risk-mitigating effects it entails, thereby examining ways to acknowledge pre-emption investment as a risk-mitigation method, with subsequent capital benefits linked to its effectiveness.
- **Increase Granularity:** Improve the detail of the treatment regarding capital charges for underwriting risk, especially where adaptability measures have been implemented. Consider combining entity-specific calculations, such as EU undertaking-specific parameters, with standardised approaches available to all insurers, such as the FORTIFIED standards in the United States, to lower capital charges and reflect the reduced risk for all insurers. This should also benefit local insurers operating in EMDEs.

- **Go Beyond Impact Underwriting:** Extend regulatory benefits to build back better approaches, where specific contractual clauses trigger reconstruction under defined parameters that will reduce future risk, thus increasing insurability.
- **Facilitate Data Sharing:** Consider tackling the lack of evidence issue by promoting open-source data sharing mechanisms.
- **Combine Pricing with Public Support:** Consider addressing the cost obstacle associated with adaptability measures by integrating insurance pricing benefits with public assistance, e.g., taxes or credit lines, both *ex-ante* (pre-emption) and *ex-post* (build back better).

CASE STUDY – TAX INCENTIVES AND FISCAL RELIEF

Encouraging Resilience Through Targeted Tax Incentives (Chile)

Between 2015 and 2020, Chile introduced tax deductions for catastrophe-insurance premiums and resilience investments, covering residential earthquake and flood policies. Household penetration rose from 45 per cent to 65 per cent, while businesses increased capital expenditure on retrofitting by 18 per cent. This demonstrates that fiscal incentives can serve as powerful affordability levers and should be integrated into national disaster-risk-financing strategies.

V.

CHANGING CONSUMER BEHAVIOUR

Availability and affordability of insurance is essential, but not sufficient to close protection gaps. Consumer behaviour, whether from individuals, businesses, governments, or other stakeholders, often determines whether insurance is bought or if insurance risk mitigation services are used. To close protection gaps, we need to understand the many reasons why people might not choose to purchase insurance, even when it is readily available.

Much has been written about these human tendencies,⁵⁰ crystallised, in particular, by the work of Robert Meyer and Howard Kunreuther at the Wharton School of the University of Pennsylvania, along with other academic voices in behavioural economics and heuristics, and the United Nations Office for Disaster Risk Reduction.

As reflected in these and other writings, some critical behavioural/cognitive biases include:

1. Myopia & Short-Term Thinking:⁵¹

A bias towards short-term thinking and prioritisation of short-term rewards vs long-term rewards. This is particularly problematic in relation to insurance purchases and investment in risk mitigation efforts, e.g., purchasing flood insurance or fireproofing a building, as the attendant rewards are often longer term or harder to appreciate (e.g., “if a flood, hurricane, earthquake does not occur, what benefit did I receive?”). Generally, “individuals are more sensitive to small losses than large

gains,” with insurance premiums being “a certain and near-term expense^[52], whereas the claim benefit is uncertain and distant and is therefore perceived as a potential loss.”⁵³

2. Optimism:

“It won’t happen to me.” Despite evidence to the contrary, people often persuade themselves that they will be OK. Disaster will not affect them.⁵⁴ This is exacerbated by a common lack of understanding of risk exposure – what does a 1-in-200-year event mean? What does a 100-year flood plain indicate? And, of course, undue optimism is even more pronounced when risk mitigation is difficult or costly.

3. Inertia, Procrastination, and the Status Quo:

A category of behaviours arising from people’s reluctance to make difficult decisions. In research, this is often called the “status quo bias,” where “individuals are reluctant to depart from the status quo, even though it might be beneficial to do so,” leading to situations where risk-prone individuals “tend to resist insurance commitments and instead cling to current risk-coping mechanisms such as informal savings.”⁵⁵ These aversions and failure to consider insurance cause people to default to traditional solutions despite their shortcomings, rather than adopting new de-risking methods with proven evidence of effectiveness (i.e., “stick with what you know,” “do nothing, and hope for the best”).

⁵⁰ See generally, the following:

1. Robert Meyer & Howard Kunreuther, *The Ostrich Paradox: Why We Underprepare for Disasters*, WHARTON SCHOOL PRESS (2017), <https://www.jstor.org/stable/j.ctv2hdfz6>.
2. UNDRR, GLOBAL ASSESSMENT REPORT ON DISASTER RISK REDUCTION 2022: OUR WORLD AT RISK – TRANSFORMING GOVERNANCE FOR A RESILIENT FUTURE (2022), <https://www.undrr.org/media/79595/download?startDownload=20251029>.
3. THE GENEVA ASS’N, UNDERSTANDING AND ADDRESSING GLOBAL INSURANCE PROTECTION GAPS (Apr. 2018), https://www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public/understanding_and_addressing_global_insurance_protection_gaps.pdf.
4. Howard C. Kunreuther, Mark V. Pauly, & Stacey McMorrow, *Insurance and Behavioural Economics: Improving Decisions in the Most Misunderstood Industry*, CAMBRIDGE UNIV. PRESS., <https://doi.org/10.1017/CBO9781139050319>;
5. Peter John Robinson & W. J. Wouter Botzen, *Behavioural Public Policy for Natural Disaster Preparedness and the Role of Economic Experiments*, 12 HUM. & SOC. SCI. COMM., 719 (May 27, 2025).

⁵¹ UNDRR, *supra* note 50, at 68.

⁵² THE GENEVA ASS’N, *supra* note 50, at 28.

⁵³ *Id.*

⁵⁴ UNDRR, *supra* note 50, at 97.

⁵⁵ THE GENEVA ASS’N, *supra* note 50, at 29.

4. Recency (Availability) Bias & Amnesia:

A category type of behaviour that stems from the human tendency to downplay or completely forget evidence from past events and instead focus too much on recent events. Even though the purchase of insurance typically increases immediately after a disaster like an earthquake or flood, those policies are often not renewed during the periods between disasters,⁵⁶ as recent memory of the event fades (e.g., “I haven’t seen a flood around here in ten years, is it really worth buying flood insurance?”)

These common cognitive biases are found in all human decision-making, but they become especially influential when considering low-frequency/high-severity events like NatCats.⁵⁷ Moreover, the effect of these biases is often amplified by distrust or suspicion of the insurance industry and even government services, as well as by the moral hazard created by post-disaster relief efforts from governments, NGOs, charities, and others (i.e., “why should I spend money on insurance when relief will be provided by the government post event?”). Despite this, experience from anticipatory-action mechanisms such as Start Network’s Start Ready⁵⁸ and IFRC’s DREF Insurance⁵⁹ show that direct experience of payouts is the most effective driver of risk mitigation behaviour and trust. Embedding such early-action triggers within national disaster-risk-finance frameworks can help normalise insurance purchasing across sectors.

These human tendencies are not limited to individuals and businesses; they also influence government officials and other stakeholders who have the opportunity and responsibility to address protection gaps. Too often, governments take years to consider possible solutions (inertia/procrastination) and then will forgo a potential insurance-regulatory solution in favour of other government priorities (e.g., “should I build a road or a hospital or spend money on catastrophe insurance

for my state, city, community?”). Doing nothing may look increasingly attractive after several years without a natural catastrophe (recency bias).

How can we address these common cognitive biases and turn them to our advantage to achieve risk-reduction outcomes? This paper does not allow for an in-depth analysis of the causes, effects, and possible responses to these biases. However, we do have some observations on potential actions to tackle them, including:

1. Acknowledge Biases:

Stakeholders should recognise the influence of cognitive biases as significant barriers to closing protection gaps. Make them a priority.

2. Engage Experts:⁶⁰

Insurers, governments, DFIs, and NGOs must collaborate with relevant specialists, including those in behavioural economics, psychology, sociology and related fields, to provide practical insights into consumer behaviour and help develop responses. The aim should be to ensure consumers and others understand these decision-making biases and to craft strategies to confront them directly. This might include:

- **Educational Initiatives:** Concentrated and targeted consumer education initiatives that provide clear information on local risk exposures.
- **Explaining the Value of Insurance:** Insurers, regulators, and other public and private actors should launch campaigns to explain the benefits and advantages of insurance. Insurance regulators should clarify the role of regulation in promoting responsible, dependable insurance markets. Clarify that relief from governments is limited, often delayed, and not guaranteed.

⁵⁶ Robinson & Botzen, *supra* note 50, at 5 (“The extent to which individuals are protected from natural disaster damage has been shown to vary over time (Michel-Kerjan et al. 2012). This may be caused by psychological processes that cause individuals to either drop their disaster insurance coverage, or not take additional risk reduction measures on top of those that are currently in place, even though they face increasing disaster risk from climate change . . .”).

⁵⁷ See *id.* at 2.

⁵⁸ Start Ready, START NETWORK, <https://startnetwork.org/> (last visited Oct. 29, 2025).

⁵⁹ Humanitarian-sector First as Worldwide Insurance Policy Pays Climate Disaster Costs, IFRC (Dec. 11, 2024), <https://www.ifrc.org/press-release/humanitarian-sector-first-worldwide-insurance-policy-pays-climate-disaster-costs>.

⁶⁰ See generally, UNDRR, *supra* note 50, at 111 (listing in detail what “listening to experts” might mean in various risk contexts).

V. CHANGING CONSUMER BEHAVIOUR

- **Simplified Policies with Short-Term Benefits:**

Insurers offering policies that are easy to understand and may deliver some short-term benefits even if a loss payment is not triggered.⁶¹

- **Build Trust:** Enhancing understanding will also boost consumer trust and confidence (see further discussion in the following Section).

3. Community-Based Insurance Coverages:

Possibly financed entirely or partially through assessments on residents. This can also lead to community-wide risk mitigation measures.

4. Mandatory Insurance:

This removes decision-making, but can have a wide range of issues, such as regulatory challenges and public acceptance.

5. Default Coverages and Terms:

Modifying policy default terms to include certain key coverages, e.g., policies that include flood insurance unless declined,⁶² or multi-year policy periods for disaster-prone areas.⁶³

Given the nature of this problem there are many important legal, regulatory, and government policy choices to consider. Insurance regulators will rightly focus on the need for transparency and informed consumer choice. However, in shaping these policies, regulators must be aware of the biases that lead people to make poor risk-mitigation decisions. It is also important to note that addressing these biases in any insurance market is both vital and challenging. The challenges are even greater in EMDEs.

⁶¹ See *id.* at 116 (describing how “offering a loan for investing in risk reduction measures tied to a multi-year mortgage can significantly reduce the annual costs, making the investment more affordable upfront”).

⁶² See *id.* at 116 (describing a 2021 study of 1,187 homeowners in flood-prone areas of the Netherlands and the United Kingdom, which showed that a default/opt out flood coverage resulted in a “higher proportion of homeowners having flood insurance . . . including those with little to no flood-related experience”); see also, Peter John Robinson & W. J. Wouter Botzen, *supra* note 50, at 4 (“To address individuals’ reluctance to deviate from the status quo or default options, policymakers may include natural disaster coverage in standard homeowners’ insurance” [citing to Kunreuther, 2021]).

⁶³ See Peter John Robinson & W. J. Wouter Botzen, *supra* note 50, at 3 (“. . . Kerjan (2015) demonstrated that individuals prefer the price stability of a multi-year contract over yearly insurance, where premiums could fluctuate based on disaster occurrence. This preference was robust to moderate premium loading of the multiyear contract, whilst keeping the yearly insurance premium equal to the expected loss. The results suggest policymakers may raise disaster insurance penetration rates by offering multi-year contracts instead of single-year contracts.”).

VI.

BUILDING TRUST & CONFIDENCE

In the complex world of insurance, two concepts play essential roles in shaping outcomes for individuals, governments, businesses, and insurers themselves: insurance risk literacy and insurability. This section explores the intricate linkages between these concepts,

highlighting how a better understanding of risk can shape what is considered insurable and, in turn, foster trust and confidence, thereby enhancing the functioning of insurance markets.⁶⁴

A. IMPORTANCE OF INSURANCE RISK LITERACY

Insurance risk literacy refers to the ability of individuals, corporations, governments and other organisations to understand, evaluate, and manage the risks they face, as well as to understand insurance products designed to transfer or reduce these risks. This includes knowledge of probability, risk evaluation, policy terms, exclusions, and the fundamental principles that underpin insurance contracts.

As discussed in the introduction, insurability refers to the conditions under which a risk can be transferred to an insurer in exchange for an affordable premium. Insurability is closely related to concerns about affordability, limited awareness, product complexity, and scepticism towards insurers. Policy interventions and public trust initiatives are essential in closing protection gaps and in creating a safer, more resilient society.

B. PROMOTING BEHAVIOURAL IMPACT: MOVING BEYOND AWARENESS

In many EMDEs, increasing awareness of the importance of insurance for protecting, directly or indirectly, against NatCat impacts is emerging; however, many countries are still new to the concept of insurance and its vital role in enabling financial independence. Therefore, collaboration with the insurance industry, insurance trade associations, and both international and local governments on the importance of risk literacy beyond mere awareness is crucial for building financial resilience in these markets. Awareness is valuable, but financial literacy that translates awareness into action is vital, e.g., budgeting, saving, and choosing financial and insurance products. Strategies to improve financial and insurance literacy should result in behavioural change, including the development of trust.

One key challenge in some EMDEs is traditional distribution channels. Some EMDEs in Asia have a strong focus on traditional face-to-face sales processes, through agents or “bancassurance” (bank branches). This intermediation can make it more difficult for the insurer to develop a direct relationship with the insured, which is often critical to building trust and confidence in the insurer. For instance, this distribution practice inherently limits which consumers become aware of and have access to insurance products. At the same time, a high rotation of agents from one insurance company to another company, including moving out entirely from the sector, may be perceived as a distrust of insurers from the customer side, and ultimately may create distrust in respect of the insurance industry.

⁶⁴ This Section relies, in part, on the following materials:

1. ORG. FOR ECON. CO-OPERATION & DEV., ENHANCING THE INSURANCE SECTOR'S CONTRIBUTION TO CLIMATE ADAPTATION (2020), https://www.oecd.org/content/dam/oecd/en/publications/reports/2023/03/enhancing-the-insurance-sector-s-contribution-to-climate-adaptation_8a7cf18d/0951dfcd-en.pdf.
2. *A World at Risk: Closing the Insurance Gap*, LLOYD'S (Oct. 22, 2018), <https://www.lloyds.com/worldatrisk?>.
3. *The Industries Most at Risk from Extreme Weather – and How to Protect Them*, WORLD ECON. F. (July 1, 2021), <https://www.weforum.org/stories/2021/07/the-industries-most-at-risk-from-extreme-weather-and-how-to-protect-them/>.

VI. BUILDING TRUST & CONFIDENCE

Adverse selection and moral hazard present additional challenges, as discussed in section II above. Poor risk literacy can worsen adverse selection, where high-risk individuals are more likely to buy insurance, while low-risk individuals choose not to. This can result in higher premiums or withdrawal of coverage, making some risks uninsurable. Conversely, greater literacy helps individuals understand the consequences of their actions, reducing moral hazard and improving the overall insurability of risks within the pool.

When consumers understand insurance products and risk management, they are more likely to seek appropriate coverage. This informed demand encourages insurers to develop innovative products and potentially redefine the limits of insurability. For example, in India, heatstroke insurance coverage is beginning to emerge as understanding and literacy about NatCat risks have increased. Similarly, to protect crops for small farmers (under the PMFBY insurance scheme), the Indian insurance regulator (Insurance Regulatory and Development Authority of India) launched an educational campaign to raise awareness of marketing practices to prevent insurance mis-selling.

C. THE NEED FOR DIGITAL TOOLS IN FINANCIAL AND RISK LITERACY

Digital tools are essential for engaging people in financial and insurance education and provide an additional way to reach target groups. They make information more accessible and user-friendly, increasing reach and relevance. As innovation advances, including the use of AI, more interactive tools such as apps, simulators and calculators can help explain complex topics like insurance products and retirement planning. Efforts from various stakeholders within the insurance ecosystem should focus on closing digital access gaps, especially among older and rural populations, to promote insurance inclusivity (no one left behind).

In conclusion, insurance risk literacy and insurability are closely connected. As individuals and organisations become more knowledgeable about risk and insurance, the limits of what is considered insurable can expand, leading to stronger, more inclusive insurance markets. Promoting risk literacy is therefore not only advantageous for policyholders but also essential for insurers and regulators seeking to create a sustainable and resilient insurance ecosystem.

D. INNOVATIVE GOVERNMENT INITIATIVES: CHARTING NATCAT FINANCIAL & RISK LITERACY

As a supplement to the above, the following are some examples where governments have implemented NatCat Financial and Risk Literacy initiatives:

- **India:** The Indian government is actively pursuing the development of the insurance market, with a “mission to ensure insurance for all by 2047.” Its recent initiatives include:
 - **Regulatory reforms:** Opening the market to attract private and foreign investment, including raising the foreign direct investment (FDI) cap for insurance companies.
- **Financial inclusion schemes:** Initiatives such as the Ayushman Bharat health scheme and the former compulsory crop insurance scheme (PMFBY) aim to provide basic coverage to large segments of the population. Under the regulator’s new programme, Insurance for All by 2047, several measures are being implemented to strengthen the three pillars of the insurance ecosystem: customers, providers, and distributors.
- **Disaster Risk Finance:** The Government’s Fifteenth Finance Commission has recommended four pre-disaster interventions: disaster risk insurance, crop insurance, risk pooling for infrastructure protection, and increasing access to international reinsurance.

VI. BUILDING TRUST & CONFIDENCE

- **National Insurance Academy (NIA):** Although not new, NIA, under the Ministry of Finance, collaborates with the private insurance sector to provide education, training, and research on insurance, pensions, and management.
- **China:** The government has made notable progress in providing universal medical insurance coverage. While state-run schemes initially dominated, authorities are now promoting the development of supplementary commercial health insurance. There is a strong focus on the connection between climate and health prevention.
- **Swissnex China Program:** Facilitates learning between Swiss and Chinese experts on next-generation disaster risk reduction (nexGenDRR).
- **ASEAN:** Government regulators are increasingly paving the way for the digitalisation of the insurance industry, recognising the importance of a digital ecosystem to enhance insurance accessibility and financial literacy.
- **Philippines:** Under the guidance of the Department of Finance, the private sector is working to enhance its disaster risk finance and insurance mechanisms, including a focus on climate risk literacy and catastrophe risk transfer solutions such as parametric insurance and catastrophe bonds. The Climate Change Commission (CCC) is also promoting climate literacy through public awareness initiatives such as the “Kalayaan 2025” event, while the Department of Science and Technology (DOST) uses the HANDA Pilipinas expo series to raise awareness of science and technology solutions for disaster resilience.
- **Vietnam:** National Strategy on Natural Disaster Prevention aims to enhance access to risk information and promote community-based disaster risk management, ensuring that, by 2030, 100% of government agencies, organisations, and households receive and understand disaster prevention information. Key actions include developing disaster-prevention databases, incorporating disaster education into training programmes, and supporting vulnerable communities in building long-term resilience against the increasing effects of climate change and natural disasters.

VII.

CONCLUSION & CALL TO ACTION

“Insurability” is a hot topic among those working to address the alarming protection gaps and lack of resilience concerning NatCats, particularly in the most vulnerable communities. It is indeed a critical aspect of the protection gap problem. Perhaps the most important.

Like many concepts, insurability is used to mean many things. In this paper we define it very specifically: “A risk is insurable when insurance protection for that risk is *readily available and reasonably affordable*.” This definition emphasises both sides of the insurance equation – whether insurers are willing and able to cover the risk, and whether customers have access to the insurance they need and want, along with the means to pay for it.

Based on our definition of insurability, we have outlined an extensive, though not exhaustive, list of the root causes for a lack of insurability issues and suggested ways to address them. These mainly focus on the underwriter process, the influence of insurance regulation and other laws in creating an enabling environment and preventing unnecessary impediments, the impact of human biases and behaviour, and the importance of building trust and confidence in insurance solutions – partly by enhancing risk literacy among non-insurance stakeholders.

Our discussion of causes and remedies is necessarily high-level. These are complex, multi-layered issues. Much more needs to be done to understand them and to address them effectively and at scale.

From our discussion of the various root causes of uninsurable risks and potential solutions, we hope it is clear that “many need to do more” to increase insurability. We hope this paper will not only illuminate the issue of insurability but also provide helpful specific, actionable recommendations for all stakeholders. Please refer to the consolidated list of some key recommendations in Appendix A, noting that the list is not an exhaustive index of every recommendation made in this paper.

The IDF’s mission is to act – not just talk—about closing the NatCat protection gap. This paper is intended to act as a guide and a challenge to those who have the power and the resources to increase insurability to turn words into action.

APPENDIX A

CONSOLIDATED RECOMMENDATIONS BY STAKEHOLDER CATEGORY

I. LEGISLATORS/POLICY MAKERS (CENTRAL AND LOCAL)

As the paper states, “There is no better way to increase insurability than to reduce risk.” Legislators and policy makers in EMDEs can create critical levers – infrastructure investments, zoning and building codes, hazard data policies, taxation, subsidies, and participation in pooled risk mechanisms – all of which directly affect the availability and affordability of coverage. They can also influence consumer confidence and market entry through legal frameworks.

RECOMMENDATION	JUSTIFICATION	SECTION
A. Invest in Resilient Infrastructure	Adopt building codes focused on NatCat resilience, and legislate to enable “risk sensitive infrastructure investment.” “Promote and incentivise affordable standards for roofing, floodproofing, and wind anchoring.”	III.A
B. Strategically Site Urban Development (Sensitive Land Use Planning)	“Development in hazard prone areas... is especially critical” because impermeable surfaces amplify floods . . . restricting such expansion reduces future losses.”	III.A
C. Promote “Build Back Better” Legislative Principles	Recovery and reconstruction should “reduce intensity, frequency of claims or both, going forward.” A Sendai Framework approach is recommended for governments.	IV.B
D. Fund Open Hazard Data & Weather Networks	Public hazard maps and weather station networks are “critical enablers of insurability.” Governments should “invest in open, high-resolution flood, cyclone, and seismic maps; densify weather-station networks and share data.”	III.B
E. Reduce and/or Waive Premium Taxes, Parafiscal Levies	“Tax Relief: Reduce or waive premium taxes/stamp duties on micro/SME premiums and claims; remove parafiscal levies that bloat prices. Allow pre-tax catastrophe reserves and prudent FX management to reduce reinsurance dependency and currency-mismatch costs.”	III.B
F. Fund Targeted Premium Subsidies Tied to Mitigation	Legislation effectuating targeted, conditional subsidies can improve participation and environmental outcomes. This could also include premium buy-downs for micro and small enterprises and/or vouchers tied to risk reduction (e.g., flood barriers or fire safety upgrades). Credit-linked incentives including lower borrowing rates for insured SMEs could reward insured borrowers.	III.B
G. Establish Public Private Catastrophe Backstops Where Needed	Governments or development partners can provide excess of loss layers, lower premiums where needed to fill gaps in the market.	III.B
H. Join or Form Regional Risk Pools	See the CCRIF case study: “Pooling and scale are essential for small economies facing systemic risk.”	III.B

RECOMMENDATION	JUSTIFICATION	SECTION
I. Remove Restrictive FDI, Reinsurance Cession Requirements	“Protectionist measures... impede capital deployment. When capital is encumbered, insurability is reduced.”	IV.A
J. Modernise Laws to Recognise Parametric/Index Products	“Modernising regulatory frameworks to recognise new product types is essential for innovation.” We recommend recognition of parametric products in law and setting fair conduct standards (clear triggers, transparent data sources, grievance redress).	III.B & IV.A
K. Consider Mandatory Insurance Schemes in Certain High-Behavioural-Impact Scenarios	Mandatory insurance eliminates decision making where human behavioural tendencies excessively distort perception of risk.	V

II. REGULATORS & SUPERVISORY AUTHORITIES

Regulators further impact and enforce the boundaries within which insurance markets operate. The paper notes, e.g., “insurance related laws and regulations are indeed critical to providing an enabling environment . . . overly restrictive legal and regulatory provisions . . . can impede the deployment of capital.”

RECOMMENDATION	JUSTIFICATION	SECTION
A. Insurability as a Regulatory Objective	Incorporate insurability as an “objective on its own of insurance regulation . . . Promoting greater insurance penetration, attracting sufficient insurance and reinsurance capital and underwriting and technology expertise.”	IV.B
B. Acknowledge Biases	“Stakeholders should recognise the impact of cognitive biases as material impediments to closing protection gaps.”	V
C. Embed Consequences	“Embed the consequences of impact underwriting (via adaptation measures to reduce risk) by insurers in the regulatory framework.” “Explore ways to recognise pre-emption investment as a risk mitigation technique, with subsequent capital benefits linked to its effectiveness.”	IV.B
D. Combine Entity Specific Calculation with Standardised Approaches as Basis for Reduction of Capital Charges	“Consider combining entity specific calculations (such as the EU undertaking specific parameters) with standardised approaches available to all insurers (such as using the FORTIFIED standards in the United States) as a basis to allow for lower capital charges, reflecting the lower risk embedded, to all insurers.” Use “existing tools, such as the IFC Building Resilience index, to introduce different capital charges based on the classification of assets based on such indexes . . .”	IV Generally, Intro, & IV.B

RECOMMENDATION	JUSTIFICATION	SECTION
E. Integrate Build Back Better Premises into Product Norms	<p>“Extend regulatory benefits to build back better approaches, where certain contractual clauses trigger reconstruction under certain parameters that will reduce future risk, thus increasing insurability.”</p> <p>“Consider addressing the hurdle around costs of adaptability measures by combining insurance pricing benefits with public support (e.g., taxes, credit lines), both ex-ante (pre-emption) and ex-post (build back better).”</p>	IV.B
F. Centre Rate Regulation on Risk and Cost-Based Pricing	<p>“It is essential that insurers are able to charge a risk and cost-based price for the coverage they provide.”</p>	II
G. Consider Mandatory Insurance Schemes in Certain High-Behavioural-Impact Scenarios	<p>“Anonymised claims and exposure databases... improve actuarial accuracy and reduce risk premiums.” Regulators can support via standards or hosting.</p>	III.B
H. Proportional Regulation For Microinsurance	<p>“Simplified licensing, disclosure, and distribution rules” widen access for low risk, small sum covers.</p>	III.B
I. Operate Regulatory Sandboxes	<p>“Fast track pilots in select lines and parametric products” to encourage innovation without long delays.</p>	III.B
J. Encourage Plain Language in Regulatory Form Reviews	<p>Plain-language policies, cooling-off periods, mandated claims turnaround times, and alternative dispute resolution mechanisms can build trust.</p>	III.B, VI
K. Enable Digital Literacy Initiatives	<p>“Digital tools are vital for engaging people in financial and insurance learning and offer an additional means of reaching target groups . . . including the use of AI, more interactive tools, such as apps, simulators and calculators.” These can “help explain more complex topics like insurance products . . . particularly among older and rural populations, to ensure insurance inclusivity (no one left behind).”</p>	III.B, VI, & VI.D Examples
L. Promulgate Regulations Encouraging Expedited Claims	<p>Mandated claims turnaround times encourage consumer trust.</p>	III.B
M. Encourage Newcomers and Market Competition	<p>“Encourage new, well-capitalised entrants and InsurTechs” and “support cross-border scale via regional licensing harmonisation where possible.”</p>	III.B
N. Eliminate Excessive Compulsory Cessions	<p>“Avoid excessive compulsory cessions to undercapitalised state reinsurers; allow access to diverse global reinsurance markets to reduce cost.”</p>	III.B

RECOMMENDATION	JUSTIFICATION	SECTION
O. Strengthen and Amplify Guarantee Funds	“Guarantee Funds: Strengthen trust to increase uptake and spread fixed costs across larger pools.”	III.B
P. Engage Behavioural Experts	Engage relevant experts including experts on behavioural economics, psychology, sociology and other similar disciplines to provide actionable insights into consumer behaviour regarding disaster protection and help develop responses.	V
Q. Consider Default Coverages Where Cognitive Biases Distort	Consider changing “policy default terms to encompass certain key coverages (e.g., a policy includes flood insurance unless declined), or multi-year policy periods for disaster-prone coverages.”	V

III. INSURERS & REINSURERS

As risk absorbers and risk signallers, insurers must price accurately, develop relevant products, and establish broad partnerships. The paper highlights the importance of tailoring products to local hazards and affordability factors while “ensuring consumers . . . have access to competent insurance advisors” and scalable distribution.

RECOMMENDATION	JUSTIFICATION	SECTION
A. Tailor Products to Local Needs	Avoid “retrofitted from other jurisdictions” products that don’t match local perils/assets.	III.B
B. Offer Simple, Scoped Benefits & Digital Literacy Tools	“Clear policy wordings . . . appropriately tailored benefits” reduce administration and mistrust and increase take-up of product.	III.B
C. Offer Digital Literacy Tools	“Digital tools are vital for engaging people in financial and insurance learning and offer an additional means of reaching target groups.”	VI
D. Develop Microinsurance, Group/Community, Usage Based, Parametric Products	Develop products with “flexible, high-Frequency micro-Premiums. . . with grace periods aligned to harvests or other cash flow seasonality considerations.” Consider implementation of premium collection via mobile money apps and adjacent financial tools.	III.B
E. Develop Parametric Products	“Data driven, parametric structures can make insurance viable at scale in informal economies.” “Rainfall, cyclone, flood, earthquake triggers pay quickly without loss adjustment, cutting cost and moral hazard.”	III.B
F. Develop Usage-Based and On-Demand Products	Introduce “Pay-as-you-drive motor, per-trip accident cover for riders/drivers, short-term travel or device protection.”	III.B

APPENDIX A CONSOLIDATED RECOMMENDATIONS BY STAKEHOLDER CATEGORY

RECOMMENDATION	JUSTIFICATION	SECTION
G. Offer Mitigation Incentives	This could include, offering “meso-level covers to cooperatives / agribusinesses and lenders that cascade protection to farmers”; premium incentives “for... flood proof storage”; and premium incentives “for drought-resistant seeds, water harvesting, raised plinths, or flood-proof storage.”	III.B
H. Integrate Build Back Better in Claims	Reconstruction to more resilient standards lowers future claim frequency/severity. “Insurers could approach recovery, rehabilitation and reconstruction after a disaster as a critical opportunity to build back better, including through integrating disaster risk reduction into development measures.”	IV.B
I. Partner with MFIs, SACCOs, Mobile Operators, Utilities	Leverage trusted networks to reduce customer acquisition cost and increase reach. “Embedding insurance in core... transactions” ensures uptake at scale.	III.B
J. Train Community Agents	“Training community agents as educators and first line support” increases penetration in underserved areas.	III.B
K. Use Digital Onboarding/ Lean Claims Processes	Simple enrolment journeys enable low cost coverage delivery, while lean claims (Claim-by-phone/photo, mobile money payouts, biometrics, and AI-assisted fraud checks) reduces cost and increases trust.	III.B
L. Share Anonymised Loss/Exposure Data	“Anonymised claims and exposure databases... improve actuarial accuracy and reduce risk premiums.”	III.B
M. Educate Consumers on Insurance Value Proposition	Explain “limited, often delayed (and not guaranteed) relief from governments” to increase voluntary uptake.	VI

IV. DEVELOPMENT FINANCE INSTITUTIONS / DONORS / CLIMATE FUNDS

Development Finance Institutions (DFIs) and donors can lower reinsurance and premium costs, fund enabling data infrastructure, and support pilot innovations – roles explicitly cited in the paper in affordability and resilience strategies.

RECOMMENDATION	JUSTIFICATION	SECTION
A. Provide Concessional Reinsurance Where Needed	Directly lowers retail premiums in catastrophe exposed zones.	III.B
B. Fund Premium Buy Downs	“Premium buy downs for micro and small enterprises... climate perils” will increase uptake.	III.B
C. Finance Hazard/ Weather Data Infrastructure	“Invest in open... hazard maps” and station networks; improve modelling accuracy.	III.B

APPENDIX A CONSOLIDATED RECOMMENDATIONS BY STAKEHOLDER CATEGORY

RECOMMENDATION	JUSTIFICATION	SECTION
D. Support Capacity Building	Train regulators and insurers for innovation adoption and risk based pricing.	III.B
E. Back Pilots	Grants/blended finance allow testing in regulatory sandboxes and informal markets.	III.B
F. Fund Group/ Community Policies	“Cover families, communities, Micro, Small and Medium Enterprises (MSME) associations to dilute risk and reduce anti-selection and distribution cost.”	III.B

V. CROSS CUTTING (MULTI STAKEHOLDER)

Certain recommendations require coordinated cross-sector engagement; the paper explicitly calls for tackling behavioural barriers, data gaps, and affordability “holistically and with the assistance of many key stakeholders.”

RECOMMENDATION	JUSTIFICATION	SECTION
A. Address Cognitive Biases Impeding Uptake and Integrate Behavioural Expertise	“Stakeholders should recognise . . . cognitive biases as material impediments . . . and develop strategies to address them head on.”	V
B. Link Affordability Measures with Resilience Programs	“Reduction of risk = lower cost of insuring the risk” – integrate subsidies, product design changes with hazard mitigation.	III.A & III.B
C. Coordinate Stakeholders for Holistic Strategies	“Tackle the problem . . . with the assistance of many key stakeholders . . . greater progress in closing these gaps.”	II & VII
D. Promote ‘Resilient Cities = Insurable Cities’	Urban resilience directly impacts premium levels and product availability.	III.A
E. Banks/MNOs/ Platforms Embedding	“Embed insurance in existing products; offer premium financing and revenue-linked payments.”	III.B