

INSURANCE AND SUSTAINABLE DEVELOPMENT: PARTNERING ON RISK, RESILIENCE, AND TRANSFORMATION

Lorcán Hall and Patrick Paul Walsh

SDGacademy

POSITION PAPER APRIL 2025

A catalogue record for this book is available from the British Library Library of Congress Cataloging-in-Publication data

Insurance and Sustainable Development: Partnering on Risk, Resilience, and Transformation © Lorcán Hall and Patrick Paul Walsh.

ISBN: 978-0-903200-23-3 (paperback) ISBN: 978-0-903200-24-0 (ePDF) ISBN: 978-0-903200-25-7 (ePUB)

Published by Dublin University Press

Dublin, Ireland, 2025

www.dublinuniversitypress.com

Hall, L. and Walsh, P.P. (2025). Insurance and Sustainable Development: partnering on risk, resilience, and transformation. Paris: SDSN, Dublin: Dublin University Press. https://doi.org/10.25546/111474

Design: Luciana Berger Graphic Design, San Diego, California, USA.

Printed by Ingenidoc in Rouen, France.

The rights of Lorcán Hall and Patrick Paul Walsh to be identified as the authors of this work has been asserted in accordance with the Copyright and Related Rights Act, 2000.

This work is in copyright. It is subject to statutory exceptions and to the provisions of relevant licensing agreements; with the exception of the Creative Commons version the link for which is provided below, no reproduction of any part of this work may take place without the written permission of the authors.

An open access online version of this work is published at https://doi.org/10.25546/111474 allowing re-use, distribution and reproduction in any medium for non-commercial purposes, providing appropriate credit to the original work is given and adaptations are shared under the same Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0) licence.

To view a copy of this license, visit https://creativecommons.org/licenses/by-nc-sa/4.0/.

All versions of this work may contain content reproduced under license from third parties. Permission to reproduce this third-party content must be obtained from these third parties directly.

When citing this work, please include a reference to the DOI 10.25546/111474.

Dublin University Press has no responsibility for the persistence or accuracy of URLs for external or third-party internet websites referred to in this publication and does not guarantee that any content on such websites is, or will remain, accurate or appropriate.

SECRETARIAT

The authors would like to express our sincere appreciation to the following colleagues and collaborators for their essential and valuable advice and inputs to this project: Niamh Brennan (Dublin University Press); Isabela Carrozza Joia, Kayla Colyard, and Helen Perham, (SDSN); Kayla Eckles, Shelly Habecker PhD, and Natalie Kelly (Swiss Re); and Sheila Stanley (University College Dublin).

RESEARCH PARTICIPANTS

This paper has been prepared with input from 42 research participants. 41 participants, whose contributions are gratefully acknowledged, are listed below. One participant requested anonymity. These research participants, also referred to as "participants" or "contributors" in this work, are senior administrators and executives with global roles across the public and private sectors. The authors are very thankful to all 42 participants for their invaluable time and insights.

- Dr. Franziska Arnold-Dwyer: Associate Professor of Law, UCL
- Adrita Bhattacharya-Craven: Director, Health and Demography, The Geneva Association
- Hui Lin Chiew: Independent Consultant
- Ange Nothando Chitate: Chief Operating Officer, African Risk Capacity Limited
- Craig Churchill: Chief, Social Finance Programme, International Labour Organization
- Dr. Daniel Clarke: Director, Centre for Disaster Protection
- **Dermot Corry:** President & CEO, Milliman
- Paolo Cuomo: Chair, Sustainability Working Group, Worshipful Company of Insurers
- Rachel Delhaise: Group Head of Sustainability, Convex Group Ltd.
- **Dr. Annette Detken:** Head of InsuResilience Solutions Fund and Global Shield Solutions Platform, Frankfurt School of Finance & Management gGmbH
- Rowan Douglas CBE: CEO Climate Risk and Resilience, Howden
- Mathieu Dubreuil: Lead Advisor for Disaster Risk Financing & Insurance, World Food Programme
- Linda Freiner: Chief Sustainability Officer, Zurich Insurance Group
- Moira Gill: Former Chair, Board of Directors, Principles for Sustainable Insurance, United Nations Environment Programme Finance Initiative
- Jean-Jacques Henchoz: Chairman of the Executive Board, Hannover Re
- Ekhosuehi Iyahen: Secretary General, Insurance Development Forum
- Deepak Jobanputra: Chief Sustainability Officer, Vitality
- Jan Kellett: Special Advisor, United Nations Development Programme, Global and Corporate Lead on Insurance and Risk Finance
- Professor Phoebe Koundouri: Athens University of Economics and Business & Technical University of Denmark;
 Chair, SDSN Global Climate Hub
- Melissa Leitner: Head of Life & Health Sustainability, Swiss Re
- Ruth Lux: Head of Public Sector India, Middle East & Africa, Guy Carpenter; Co-Chair of the Sovereign & Humanitarian Solutions Working Group, Insurance Development Forum
- Dr. Christoph Nabholz: Chief Research & Sustainability Officer, Swiss Re
- Krishnan Narasimhan: Lead Specialist and Programme Manager, Climate Disaster Risk Financing and Insurance, United Nations Capital Development Fund
- Martin Powell: Group Sustainability Director, AXA
- Dr. Shailee Pradhan: Senior Sustainability Manager, Swiss Re
- Katharine Pulvermacher: Former Executive Director, Microinsurance Network
- Matthias Range: Executive Director, Access to Insurance Initiative
- Dr. Danilo Raponi: Group Head of Innovation, Generali

- Dirk Reinhard: Vice Chair, Munich Re Foundation
- Laurent Rousseau: CEO, EMEA and Global Capital Solutions, Guy Carpenter
- **Professor Jeffrey Sachs:** University Professor, Columbia University; President, UN Sustainable Development Solutions Network (SDSN)
- Lisa Sachs: Director, Columbia Center on Sustainable Investment
- **Dr. Kai-Uwe Schanz:** Co-founder and Managing Director, Purpose for Insurance AG; Director, Financial Inclusion, The Geneva Association
- Veronica Scotti: Former Chairperson, Public Sector Solutions, Swiss Re
- Dr. Barry Sheehan: Associate Professor in Risk Management and Finance, University of Limerick
- Lucia Silva: Group Chief Sustainability Officer, Generali
- Michael Szönyi: Climate Alliance Director, Z Zurich Foundation
- Shaun Tarbuck: Advisor & Former Chief Executive Officer, International Cooperative and Mutual Insurance Federation
- **Johnny Timpson OBE:** Financial Inclusion Commissioner; Non-Executive Director with multiple public and private sector organisations
- Dr. York von Falkenhayn: Head of Corporate Development, HDI Global SE
- Mario Wilhelm: Managing Partner, Rift Partners

ACKNOWLEDGEMENTS

Many thanks also to the following people for their support and for sharing their insights during this work: Lisa Balboa, Georgina Fresquez, Brona Magee, Gareth Matthews, Debbie O'Hare, Blair Sievering, Tim Smith (Hannover Re); Sinéad Clarke, Adél Drew, Nick Spencer (Milliman); Kevin Coghlan (TierOne); Arpita Das (Impact Actuarial); Gerard de Vere (InsurTech Ireland); Henri Douche (SCOR); Dana Ellis (Swiss Capacity Building Facility); Ceandra Faria (UNDP); Professor Claude A. Garcia (Berner Fachhochschule BFH); Stephan Goldstein (TETRA G); Guillermo Gonseth y García (AXIS Re); Naoise Harnett (DLA Piper); Madina Imaralieva, Dr. Elena Proden (UNITAR); Antony Ireland, Thomas O'Riordan (Better Insurance Network); Aisling Kennedy, Joe Kennedy, Michael Sharpe (Society of Actuaries in Ireland); Richard Leftley (Wavu); Alicia Montoya; Amir Sethu (MS Amlin); Swapnil Soni (Echo Re); Will Thorne; Kay Tuschen (CelsiusPro); Helen Yates (Gallagher).

Finally, although the authors of this Paper contributed to this work in a voluntary capacity, there have been administrative costs. SDSN and the authors gratefully acknowledge Swiss Re's financial contribution to this research project. Swiss Re is one of the world's leading providers of reinsurance, insurance, and other forms of insurance-based risk transfer, helping to make the world more resilient.

The opinions expressed and arguments employed in this publication do not necessarily reflect the views of the authors, the research participants, or their affiliated organisations, acknowledged individuals or their affiliated organisations, Swiss Re, or any organisation, agency, or programme of the United Nations, or UN Member States.

Finally, thank you to Luciana Berger Graphic Design for design and layout. https://www.linkedin.com/in/luciana-berger-31b17530/

Complementary Resource

To accompany this Position Paper, SDSN, the United Nations Institute for Training and Research (UNITAR), and Better Insurance Network have developed a Massive Open Online Course (MOOC) for the SDG Academy, **Insurance and the Sustainable Development Goals**. This free-to-access resource examines some of the links between insurance and the economic, social, environmental, and governance dimensions of sustainable development.

Please cite this work as:

Hall, L. and Walsh, P.P. (2025). Insurance and Sustainable Development: partnering on risk, resilience, and transformation. Paris: SDSN, Dublin: Dublin University Press. https://doi.org/10.25546/111474

ABOUTUS

SDSN

The UN Sustainable Development Solutions Network (SDSN) was created in 2012 under the auspices of the office of the United Nations Secretary-General. SDSN uses academic and technological expertise to promote practical solutions for sustainable development at all levels of governance, including the implementation of the UN 2030 Agenda for Sustainable Development, the Paris Agreement, and the Kunming-Montreal Global Biodiversity Framework. SDSN has over 2,000 organizational members in 57 national chapters and offices in New York, Paris, and Kuala Lumpur.

https://www.unsdsn.org/

SDG ACADEMY

The SDG Academy represents the education and training division of SDSN with the mandate of promoting transformative education through the creation and curation of high-quality content on sustainable development, sharing of innovative pedagogies and training models, and providing open access to learning resources. The SDG Academy was launched in September 2016 and has become a leader in the education for sustainable development field. Since inception, its online courses have attached one million enrolments across various platforms from all 193 Member States of the UN. https://sdqacademy.org/

PATRICK PAUL WALSH

Patrick Paul Walsh is a Vice President of SDSN and Director of the SDG Academy. He is on secondment from University College Dublin where he remains a Full Professor of Global Affairs and Sustainable Futures. He is the Director of the UCD M.Sc. in Sustainable Development in partnership with the SDG Academy and President of the Statistical and Social Inquiry Society of Ireland. He received a Ph.D. in Economics from the London School of Economics and Political Science. He is a Government of Ireland Fellow, Marie Curie (Brussels) Fellow, IZA (Bonn) Fellow, RSA (London) Fellow, EIIR (Brussels) Fellow, and REPOA (Tanzania) Fellow. He has held academic positions in Trinity College Dublin, K.U. Leuven, Harvard University, and Columbia University. He has also held positions in the United Nations, European Commission, IMF, and World Bank. His current focus is on Sustainable Development Education that is informed by Science, Practice and Policy.

Patrick Paul Walsh represented the UN Scientific and Technological Community Major Group in the nine-month Inter-Governmental Negotiations that led to the 17 SDGs in the outcome document called; Transforming our World: The UN 2030 Agenda for Sustainable Development. He was also part of the SDSN team that was mandated to provide academic and legal oversight on the three-year post-2015 agenda work programs from 2012 under the auspices of the UN Secretary-General as input into the nine-month inter-governmental process. Finally, he was an independent scientist on the prototypes of the UN Global Sustainable Development Report that represented the key science policy interface for implementing the SDGs that reports into the High-level Political Forum (HLPF) under the auspices of the General Assembly every four years. The next meeting of the HLPF under the General Assembly will be held in 2027 and will recommend the post-2030 agenda for sustainable development.

Email: paul.walsh@unsdsn.org

LinkedIn: https://www.linkedin.com/in/Patrick-Paul-Walsh/

LORCÁN HALL

Lorcán Hall is Senior Advisor to the SDG Academy at the UN Sustainable Development Solutions Network. He is a strategy, transformation, and innovation leader with 25 years' experience across the insurance, pensions, and investment sectors in Ireland, Italy, Germany, Switzerland, and the UK. Most recently, he held global leadership roles with Hannover Re and SCOR, two of the world's largest reinsurance companies. With an MSc. in Sustainable Development from University College Dublin, earned in collaboration with the SDG Academy, and an MBA, Lorcán's current focus is facilitating multistakeholder partnerships to ideate, innovate, and scale impactful insurance solutions.

Email: lorcan.hall@sdgacademy.org

LinkedIn: https://www.linkedin.com/in/lorcanhall/

TABLE OF CONTENTS

FOREWORDS	V
EXECUTIVE SUMMARY	IX
1. INTRODUCTION	1
2. FROM VISION TO ACTION: SUSTAINABLE DEVELOPMENT THROUGH PARTNERSHIPS AND FINANCE	2
3. THE LIMITED VISIBILITY OF INSURANCE IN UN MULTILATERAL DEVELOPMENT AGREEMENTS	7
4. LINKING INSURANCE TO SUSTAINABLE DEVELOPMENT A. Economic B. Social C. Environmental D. Governance	9 11 12 13
5. RESEARCH FINDINGS AND RECOMMENDATIONS A. Elevate the role of insurance in development agendas and frameworks B. Articulate the societal value of insurance C. Education and capacity building are catalysts for transformation D. Prevention is better than cure E. Sustainable development is broader than climate change and reducing emissions F. Sustainable development is a transformation and innovation agenda G. Innovate for local contexts and underserved communities H. Data and digital technologies fuel scalable innovations I. Public-private dialogue is crucial to shape effective markets J. The multiplicative power of multi-stakeholder partnerships K. Public sector finance is required to fuel transformational market innovations	22 23 26 29 30 32 33 36 38 40 41
6. CONCLUSION	47
REFERENCES	48

FOREWORDS



Professor Jeffrey Sachs
University Professor, Columbia University; President,
UN Sustainable Development Solutions Network (SDSN)

The world today confronts complex and interrelated challenges—ranging from human-induced climate change and loss of biodiversity to persistent poverty and rising inequality amidst great global wealth. The agreement of the UN member states to Sustainable Development is clear: to build a future that is prosperous, socially just, environmentally sustainable, and peaceful. While the objectives of the Sustainable Development Goals, the Paris Agreement, the Kunming-Montreal Framework on Biodiversity, and others, are bold, achieving those objectives requires new practical mechanisms to increase long-term investments in inclusive and sustainable growth, mitigate harms, diversify risks, and equitably share financial and other burdens.

The global insurance industry is central to this great task. As diversifiers of risk, builders of resilience, and stewards of vast pools of investment capital, the global insurance industry has a pivotal and indeed unique role in the transformation toward sustainable development. This timely report highlights the industry's various leadership roles and helps to chart a bold path for their fulfillment. We know that there remains a large "Insurance Protection Gap," with many insurable risks today still unprotected. Yet based on this report, we can also look forward to an Insurance Leadership Era, in which the insurance industry steps forward in three critical domains: risk diversification, investments in resilience and adaption, and investments in human capital and sustainable infrastructure.

Making Risk Manageable

At its core, we know, insurance is a vital mechanism for diversifying risk. By pooling and diversifying risks across individuals, geographies, and time horizons, insurance provides a crucial, often life-saving cushion against unforeseen shocks. This protection is vital in our era of intensifying climate change, where extreme weather events, floods, droughts, and heatwaves are becoming far more frequent and intense. Without insurance, these events can be ruinous, wiping out livelihoods, devastating communities, pushing millions into poverty, and blocking economic development for years or decades.

By offsetting the financial impact of such shocks, insurance allows individuals, businesses, and nations overcome shocks and natural disasters, and to invest for the future. Insurance underpins credit systems, enables business continuity, and sustains public services in the face of disasters. Insurance is not merely a financial product—it is a critical enabler of stability and sustainable development.

Insurance and Investing in Resilience

Insurance does far more than merely react to disasters; it also creates a systematic framework for risk reduction and investments in resilience. Insurance premiums are priced according to risk profiles, which in turn encourages and sometimes requires policy holders to take proactive steps to reduce risks. Property and catastrophe insurance premiums in flood-prone areas can be reduced with the implementation of flood barriers or elevated structures, or insurance may be denied entirely if communities fail to make requisite investments in risk reduction. Agricultural insurance similarly can reward, encourage, or require climate-smart farming practices.

Insurance providers are increasingly partnering with governments and development organizations to support investments in public infrastructure that reduce systemic vulnerability. Such partnerships blend financial tools with technical expertise and data, such as satellite imagery and climate modeling, to support early warning systems, resilient infrastructure, and community-level preparedness.

Investing in Transformation

In addition to their role in underwriting and reducing risk, insurance companies are among the largest institutional investors in the global economy. With tens of trillions of dollars under management, the long-term investments of the insurance sector fundamentally shape the world's economic and social future. Insurance industry assets can and should be directed toward high-return transformative investments in sustainable development: renewable energy, green infrastructure, climate-resilient agriculture, digital inclusion, health and education systems, and sustainable urbanization. Identifying and selecting such investments requires a deep understanding of the global transformations needed for sustainable development, and how to invest effectively in those transformations.

Many sustainable development investments, particularly in low-income countries, remain underfinanced due to perceived risks. Here too, the insurance industry can play a catalytic role. First, systematic analyses can identify the high-return growth scenarios for today's low-income countries. Based on such high-growth frameworks, the insurance industry can work together with other public and private financial institutions to implement novel systems of blended finance, guarantee funds, and other de-risking instruments that can mobilize increased private capital alongside public funding.

Closing the Insurance Protection Gap

Despite its vast potential, insurance today still covers only a small fraction of global environmental risks. The insurance protection gap is especially pronounced in low-income countries, where climate vulnerability is high and formal insurance coverage is minimal. When disasters strike, the absence of coverage leads to enormous human and economic costs.

Innovations in product design, delivery mechanisms, and policy frameworks can raise insurance coverage substantially. Parametric insurance—where payouts are triggered by predefined parameters such as rainfall levels or wind speeds offers one promising avenue. Such parametric products are faster and less costly to administer than traditional indemnity insurance and can be tailored to local needs. But for such novel tools to be viable and scaled in use, they require investment in data systems, trust-building with communities, and public-private partnerships that share costs and risks.

Sharing the Burden with Reparative and Distributive Justice

Closing the insurance protection gap is not just a technical or financial challenge but also a matter of justice. The countries most exposed to climate risk are often the poorest and those that are least responsible for human-induced climate change. There is therefore a compelling case for a global framework in which climate-related insurance premiums are shared equitably between those countries with the historical responsibility for climate change and those facing the highest impacts, as a matter of reparative justice. The rich countries should also be aiding the poor countries as a matter of basic distributive justice.

A New Kind of Partnership

As this important study makes clear, realizing the historic leadership of the insurance industry in sustainable development will require new partnerships. The insurance industry will increasingly collaborate with governments, development agencies, climate scientists, economists, civil society, and vulnerable and impacted communities. These strengthened partnerships will integrate cutting-edge data and analytics into policy design; develop new frameworks for combining risk diversification with investments in resilience; and support global and local governance systems that are inclusive, transparent, and accountable.

Let me thank all the writers and participants in this timely study for their dedicated work in illuminating the path for the insurance industry and its partners as we build the future we want.

FOREWORDS



Ekhosuehi IyahenSecretary General, Insurance Development Forum

In an era defined by escalating climate risks, socio-economic disparities, and global health challenges, the need for resilience has never been more urgent. The (re)insurance industry possesses unique and transformative tools in risk transfer and risk management—tools that can serve as powerful enablers of societal progress and sustainable development. However, the true value of these capabilities lies not just in their potential but in their practical implementation. As we strive to meet the United Nations Sustainable Development Goals (SDGs), our collective focus must shift toward operationalizing these solutions at scale to address real-world challenges effectively.

The SDGs provide a roadmap for a sustainable future, addressing critical issues such as poverty alleviation, climate action, and inclusive economic growth. Achieving these goals demands resilience at every level of society. The (re)insurance sector is uniquely positioned to lead this charge, offering mechanisms that protect communities and economies from the financial shocks of disasters, incentivize risk reduction, and enable investments in sustainable infrastructure.

Few are aware of the fact that by protecting lives, livelihoods and assets, insurers contribute between USD 5 and 5.5 trillion per annum to global financial resilience in the form of insurance claims and benefits payouts. These claims and benefit payouts represent the largest financial contribution to individual, business and community resilience globally than any other source outside of governments. This contribution however sits largely in the context of developed countries where insurance markets are more developed. To unlock the full potential of the industry in powering societal progress and the Sustainable Development Goals, we must move beyond theory and rhetoric — prioritizing action and focusing on tangible implementation of solutions that help to close the protection gap and particularly for the most vulnerable.

Too often, promising initiatives stall at the conceptual stage, hindered by a lack of coordination, resources, or stakeholder buy-in. Bridging this gap requires a relentless focus on implementation—translating ambition into action and potential into measurable outcomes. Success hinges on partnerships: governments, private sector actors, multilateral institutions, and civil society must come together to design and deliver solutions that are scalable, inclusive, and context specific.

To truly harness the power of risk transfer and management, we must prioritize inclusivity, ensuring that solutions reach the most vulnerable populations who are often at the greatest risk yet have the least access to traditional safety nets. Additionally, technology and data must be leveraged to enhance decision-making and to design products that are not only effective but also accessible.

The journey toward achieving the SDGs is complex, but the (re)insurance industry holds a vital key to unlocking resilience and enabling progress. By focusing on implementation, we can turn aspirations into action, empowering communities, protecting economies, ensuring stability and advancing sustainable development for all.

FOREWORDS



Jan Kellett Special Advisor, United Nations Development Programme, Global and Corporate Lead on Insurance and Risk Finance

We live in a world divided by conflict and inequality, and a natural world deteriorating at unprecedented rates. We are no longer waiting for the era of climate change to draw near. From destructive wildfires and floods, to devastating heatwaves and droughts, the impacts of a changing climate are reshaping lives, and livelihoods. This is demonstrated by the burden of insurance losses from disasters, which has more than doubled relative to GDP over the past three decades, underscoring the urgent need for action, particularly in developing countries.

Indeed, discussions across the development-insurance community in the last months, especially framed by discussions around the biodiversity, drought and climate conferences, have time and again highlighted how insurance is vital to building financial resilience, allowing families, businesses and countries to invest with more certainty with the knowledge that their critical assets are well protected. UNDP sees three vectors on how we can continue to drive the systemic shifts needed to tackle the challenges outlined in this Paper.

First, given the unpredictability of extreme weather events, from damage to infrastructure to crop losses, how can we directly counter the fact that some insurers are limiting coverage or simply refusing to cover certain classes of disaster? What is the development insurance ecosystem going to do with what appears to be an increasing reality of the signals indicating that we are reaching the limits of 'insurability'.

Second, as Barbadian Prime Minister Mottley continues to underscore through her leadership of the Bridgetown Initiative, the reform of the international financial architecture is one of the utmost importance. And yet, what exact role should the insurance industry play in it in order to make risk transfer the cornerstone for growth and development it needs to be? How can co-financing, capacity-building and knowledge-sharing on insurance be institutionalized in this new international financial architecture?

Finally, how can we forge better links between public and private actors to advance insurance solutions that can be seen as 'global public goods'? We must find new ways to better institutionalise such relationships, which represent a collective benefit for our global community.

This thinking is driving the Tripartite Agreement between UNDP, the Federal Republic of Germany, the Insurance Development Forum and 20 of the world's largest insurance companies. This is the largest public-private insurance partnership aiming to deliver new insurance and risk finance solutions to some 64 million people globally, and with a recognition that we can go even further.

In the face of an intensifying climate emergency and challenges to multilateral collaboration, tailored insurance solutions for communities in developing countries transcends mere protection for tomorrow. It is an anchor securing new resilience for the generations to come. In that spirit, I invite all of you to be read this Paper with an openness to taking "calculated risks" and readiness to imagine what we can do and achieve together.

EXECUTIVE SUMMARY

The UN 2030 Agenda for Sustainable Development ("Agenda") and its 17 Sustainable Development Goals (SDGs) outline a shared vision for a sustainable future. It is a blueprint for how we can transform our world across the economic, social, environmental, and governance dimensions, but cascading and compounding risks and crises are obscuring this vision and impacting our collective ability to deliver urgently required change. Risk and crises are overlapping, converging, and amplifying each other, causing a polycrisis and persistent instability. Only 16 percent of the SDG targets are on track to be met globally by 2030, with the remaining 84 percent showing limited progress or a reversal of progress. One critical constraint is finance with the annual SDG financing gap standing at USD 4.2 trillion.

The Agenda is the overarching development framework, complementing the other major development strategies such as the Pact for the Future, the Paris Agreement, the Kunming-Montreal Global Biodiversity Framework, the Sendai Framework for Disaster Risk Reduction, and the Addis Ababa Action Agenda. These UN multilateral development agreements repeatedly call for a whole-of-society approach and multi-stakeholder partnerships to achieve their objectives and emphasise stronger risk management and greater financial resources as transformation levers, yet we are not effectively using many tools at our disposal. One of these overlooked tools is insurance.

The insurance industry is a cornerstone of the global financial system with assets under management of USD 40 trillion, annual payouts of claims and benefits of USD 5-5.5 trillion, and liabilities of USD 36 trillion to pay future claims and benefits. Its distinctive risk management and risk transfer capabilities can play a greater role in helping households, businesses, and governments better navigate risks and crises, build resilience, and enable transformations from unsustainable to sustainable practices. However, insurance receives very little explicit attention in development agendas and frameworks. This lack of recognition stands in stark contrast to the other meaningful components of the global financial system, such as banking and investing, with these industries receiving considerable focus as drivers of change.

This qualitative Position Paper investigates why the industry's strengths receive limited attention in UN multilateral development agreements; it explores how to mainstream discussions around risk, resilience, and insurance; and presents ways in which the public and private sectors can scale the use of insurance solutions in development efforts. 42 in-depth research interviews were conducted with senior administrators and executives with global roles across both sectors.

The synthesised findings are presented as 11 design principles with 18 actionable recommendations. These proposals do not seek to reinvent the wheel. Risk management and risk transfer solutions are already used for development purposes, but the lessons from these efforts should be deployed and mainstreamed into government policies and within multistakeholder partnerships, and be appropriately resourced to scale and incentivise more transformational innovations. Only then can the full potential of the industry's distinctive capabilities be unlocked to drive transformational progress to achieve sustainable development.

This paper examines private insurance solutions, and not publicly funded social protection programmes. It intentionally excludes the roles of (re)insurance companies as institutional investors and providers of retail investment products, as these topics are regularly examined elsewhere.

Chapter 1 sets the foundation for the paper. It recognises that our world faces overlapping crises and highlights the potential role of the insurance industry in managing risks, providing financial safety nets, and enabling transformations. It explains that the UN 2030 Agenda and insurance exhibit a compelling symmetry, rooted in the principle of mutuality: the guiding concept at the heart of insurance is that many pay for the few, meaning that many people pay insurance premiums so that a few people receive financial support when they experience unforeseen economic, social, environmental, and governance shocks. This elegantly mirrors the Agenda's central, transformative promise to Leave No One Behind. Despite this powerful relationship, insurance receives minimal explicit attention in UN multilateral development agreements, contrasting with numerous references to banking and investment instruments as levers for change.

In light of our collective challenges, **Chapter 2** presents a vision of tomorrow, a sustainable future where whole-of-society efforts have achieved sustainable development across the economic, social, environmental, and governance dimensions. It continues with a brief history of sustainable development from the UN's establishment in 1945 to what might happen post-2030 when many development agendas and frameworks are currently planned to end. It concludes with a call for greater financial resources and multi-stakeholder partnerships within and among countries, and within and across the public and private sectors. Partnerships where public and private organisations pool their complementary resources – expertise, finance, networks, and technologies – to inspire and scale the transformational innovations required to drive us towards a sustainable future for people and planet.

Building on the vision of a sustainable future, **Chapter 3** recognises that the annual SDG financing gap is USD 4.2 trillion, yet there is a stark and persistent underrepresentation of insurance across key development strategies. While the UN 2030 Agenda for Sustainable Development, the Pact for the Future, the Paris Agreement, the Kunming-Montreal Global Biodiversity Framework, the Sendai Framework for Disaster Risk Reduction, and the Addis Ababa Action Agenda emphasise risk management and finance as transformation levers, our analysis reveals that their focus disproportionately favours banking and investing tools, not the insurance industry's distinctive capabilities and solutions.

Having identified the gap in development agendas and frameworks, **Chapter 4** demonstrates the intrinsic link between the insurance industry's risk management and risk transfer capabilities and sustainable development. It explores how they contribute to societal goals today and their potential to drive further progress across the economic, social, environmental, and governance dimensions.

Economically, insurance plays a vital role in promoting economic growth as evidenced by the industry's sizeable assets, annual payouts, financial commitments to pay future claims, and (in)direct employment contributions. Socially, private insurance complements public social protection programmes and healthcare services although there are awareness, availability, accessibility, and affordability challenges to overcome.

Environmentally, the industry has a key role to play in combatting climate-related risks. Its risk management expertise can better inform prevention and reduction efforts while its risk transfer solutions can be leveraged more to close protection gaps. Governance-wise, multi-stakeholder partnerships and initiatives are growing, particularly for environmental-related risks, yet life and health risks are notably underrepresented despite the interlinked nature of economic, social, and environmental risks.

Finally, **Chapter 5** presents a qualitative synthesis, which is a thematic analysis of the insights surfaced from 42 indepth research interviews. Our research participants are senior administrators and executives with global roles across the public and private spheres. A key objective, which was met, was to ensure a balanced representation across the public and private sectors, genders, and geographical regions. The interviews revealed **11 themes that illuminate the root causes of the research problem. These are presented as 11 design principles – practical guidelines for framing and guiding efforts to mobilise and scale the use of insurance in sustainable development efforts:**

- A. Elevate the role of insurance in development agendas and frameworks
- B. Articulate the societal value of insurance
- C. Education and capacity building are catalysts for transformation
- D. Prevention is better than cure
- E. Sustainable development is broader than climate change and reducing emissions
- F. Sustainable development is a transformation and innovation agenda
- G. Innovate for local contexts and underserved communities
- H. Data and digital technologies fuel scalable innovations
- I. Public-private dialogue is crucial to shape effective markets
- J. The multiplicative power of multi-stakeholder partnerships
- K. Public sector finance is required to fuel transformational market innovations

Chapter 5 also proposes **18 actionable recommendations for public and private sector organisations to address the identified challenges and opportunities**. The recommendations are evenly balanced between actions for the public and private sectors. While these are broad categories, our strategy recognises that many of the challenges and opportunities outlined in this paper transcend specific segments within the public and private sectors and emphasises the need for partnerships within and among countries, and within and across sectors to generate outcomes that are greater than the sum of their parts.

- 1. Develop a joined-up strategy for how the multilateral system should scale the use of risk transfer solutions and risk management practices in development efforts. (targeted at the public sector)
- 2. Decide who will represent the industry at development for a and resource this organisation appropriately so that industry has a "seat at the table" when agendas and frameworks are being drafted. (private sector)
- **3.** Articulate the societal value of insurance using language, data, and evidence that is meaningful to non-insurance audiences. (private sector)
- 4. Recognise that systematic education and professional development is a transformation lever. (both sectors)
- 5. Leverage the industry's risk management capabilities to introduce and strengthen risk management practices across the provision of public goods. (public sector)
- **6.** Build global multi-stakeholder partnerships to address the 12-month renewal challenge so that customers will be encouraged and rewarded for introducing risk management practices. (private sector)
- 7. Use the 17 SDGs and their 169 targets to inform and guide innovation and partnership efforts across the four dimensions of sustainable development. (both sectors)
- 8. Introduce and strengthen public policies to shape insurance markets for sustainable development. (public sector)
- **9.** Frame sustainable development as an innovation and growth opportunity, create and maintain an Opportunities Register as a counterpoint to the Risk Register, and give these registers equal weighting in strategic and tactical governance frameworks. (private sector)
- **10.** Champion success stories by developing open science repositories with case studies of solutions that are demonstrably delivering societal impact and commercial value. (both sectors)
- 11. Make insurance inclusive and Leave No One Behind by intentionally designing products, services, and processes that are locally appropriate and meet the needs of underserved communities. (private sector)
- **12.** Embrace the Cape Town Declaration on Inclusive Insurance, use this work to integrate inclusive insurance into regulatory and supervisory practices, and help shape markets to deliver for underserved communities. (public sector)
- **13.** Using the Global Digital Compact as guardrails, invest in data and digital technologies that will support the achievement of development goals for every section of society (both sectors)
- **14.** Substantively engage in multi-stakeholder dialogue fora, recognising that both sides have a desire to strengthen markets and make insurance more available, accessible, and affordable. (both sectors)
- **15.** Appoint permanent (sub-)national Chief Risk/Resilience Officers who will be responsible for understanding and quantifying risks, and proactively managing these risks, including via the use of insurance and multi-stakeholder partnerships. (public sector)
- **16.** Develop a practitioner playbook that will support public and private sector organisations to source, assess, mobilise, scale, and govern insurance-related multi-stakeholder partnerships. (both sectors)
- 17. Direct catalytic finance towards all demand- and supply-side factors that are necessary for functioning markets in addition to premium subsidies. (both sectors)
- **18.** Add risk management conditionalities to multi-stakeholder partnerships and initiatives that involve public sector catalytic finance and/or concessional private sector finance. (both sectors)

Any reader of the daily news will be familiar with our complex and pervasive challenges. We rarely hear about impactful solutions, pioneers, progress, achievements, and successes in everyday discourse - this usually focuses on problems rather than solutions. Yet, throughout the research for this paper our public and private sector research participants repeatedly shared data, evidence, and case studies of how the insurance industry significantly contributes to societal goals today and its potential to drive further progress if its capabilities can be fully leveraged.

Václav Havel, the author, poet, playwright, and political dissident who became the first president of the Czech Republic, concluded his expansive essay, The Power of the Powerless, with a thought that neatly summarises our views on the transformative potential for insurance in achieving sustainable development across its economic, social, environmental, and governance dimensions: "For the real question is whether the 'brighter future' is really always so distant. What if, on the contrary, it has been here for a long time already, and only our blindness and weakness have prevented us from seeing it around us and within us, and kept us from developing it?"

CHAPTER 1

INTRODUCTION

Our world is increasingly complex. Economic, social, environmental, and governance crises are occurring at a greater frequency. They are overlapping, converging, and amplifying each other, causing a polycrisis and persistent instability. The insurance industry's risk management and risk transfer capabilities can play a greater role in helping households, businesses, and governments¹ better navigate these crises, build resilience², and enable transformations from unsustainable to sustainable practices.

The UN 2030 Agenda for Sustainable Development ("Agenda") outlines a shared vision for a sustainable future. It is a blueprint for how we can transform our world across the economic, social, environmental, and governance dimensions, but cascading and compounding risks are obscuring the Agenda's vision and impacting our collective ability to deliver urgently required change. The Agenda's 17 Sustainable Development Goals (SDGs) and their 169 targets call for a whole-of-society³ approach to achieve these goals, yet we are not effectively using many tools at our disposal. One of these overlooked tools is insurance.

The Agenda and insurance – social protection programmes and private insurance solutions – exhibit a compelling symmetry. The guiding concept – the principle of mutuality – at the heart of insurance is that many pay for the few, meaning that many people pay insurance premiums so that a few people receive financial support when they experience unforeseen economic, social, environmental, and governance shocks. This elegantly mirrors the Agenda's central, transformative promise to Leave No One Behind⁴.

However, the insurance industry's distinctive strengths receive very little explicit attention in development agendas and frameworks. This lack of recognition stands in stark contrast to the other meaningful components of the global financial system, such as banking and investing, with these industries receiving considerable focus as transformation levers. Some audiences might not consider this issue significant, but it signals a lack of awareness and

understanding of how the insurance industry's capabilities can better support development objectives and outcomes. It also suggests that the industry can do more to articulate the societal value of its solutions using language, data, and evidence that is meaningful to non-insurance audiences.

This paper investigates why the industry's distinctive capabilities receive limited attention in development agendas and frameworks; it explores how to mainstream discussions around risk, resilience, and insurance; and presents ways in which the public and private sectors can scale the use of insurance solutions in development efforts. 42 in-depth research interviews were conducted with senior administrators and executives with global roles across both sectors.

The synthesised findings are presented as 11 design principles with 18 actionable recommendations for both public and private sector organisations. These recommendations do not seek to reinvent the wheel. Risk management and risk transfer solutions are already used for development purposes, but the lessons from these efforts should be deployed and mainstreamed into government policies and within multi-stakeholder partnerships, and be appropriately resourced to scale and incentivise more transformational innovations. Only then can the full potential of the industry's distinctive capabilities be unlocked to drive transformational progress to achieve sustainable development.

This paper intentionally excludes the roles of (re)insurance companies as institutional investors and providers of retail investment products, as these topics are regularly examined elsewhere. Also, it examines private insurance solutions, not publicly funded social protection programmes. That said, the public sector's role is central to this work with the paper exploring how to innovate and scale the use of insurance via multi-stakeholder partnerships within and among countries, and within and across the public and private sectors.

¹ **Households, businesses, and governments** are widely viewed as the three main economic actors. Naturally, the real world is more complex, but this simplified model will be used throughout this paper to describe who might benefit from leveraging the insurance industry's distinctive capabilities in their risk management practices.

² **Resilience:** This concept is frequently used in the sustainability discourse. The narrow explanation centres on the ability of a system, be it a person, a forest, a city, or an economy to withstand and recover from shocks. However, resilience thinking expands to include a broader perspective. It is not simply about "bouncing back better" or "building back better", it is also about adapting and transforming while remaining on a sustainable development pathway. More information is available at https://www.stockholmresilience.org/research/research-news/2015-02-19-what-is-resilience.html

³ Whole-of-Society: A whole-of-society approach demands active engagement and collaboration across all sections of society, within and among countries, and within and across the public and private sectors. This includes fostering partnerships, sharing responsibility, and creating an enabling environment for inclusive participation.

⁴ Leave No One Behind is the central, transformative promise of the Agenda. It is a commitment by "all UN Member States to eradicate poverty in all its forms, end discrimination and exclusion, and reduce the inequalities and vulnerabilities that leave people behind and undermine the potential of individuals and of humanity as a whole." More information is available at: https://unsdg.un.org/2030-agenda/universal-values/leave-no-one-behind

CHAPTER 2

FROM VISION TO ACTION: Sustainable Development Through Partnerships and Finance

A VISION OF TOMORROW

Economic prosperity. Social inclusion. Environmental sustainability. Peace and good governance. This is the future we want. The UN 2030 Agenda for Sustainable Development ("Agenda") captures these four interrelated dimensions of sustainable development in its 17 Sustainable Development Goals (SDGs). Importantly, the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, the Addis Abada Action Agenda, the Kunming-Montreal Global Biodiversity Framework, the Pact for the Future, and other related initiatives explicitly link their objectives to the Agenda, emphasising that they cannot be achieved without progress across all 17 SDGs and 169 targets, all designated Means of Implementation (MOIs), and follow up and review processes at all levels of governance. Therefore, the Agenda is the overarching blueprint for partnering to achieve a better world in which no one is left behind

Moreover, the Agenda is "a supremely ambitious and transformational vision...where all life can thrive" (UN, 2015b). The SDGs and their 169 targets outline where innovations are required to correct our collective failings to achieve economic, social, environmental, and governance targets. These transformations are not exclusive to the developing world nor are they the responsibility of the public sector. A whole-of-society approach – all people with agency in households, businesses, and governments - is necessary to inspire and create the transformational innovations required to power change, and this collective action demands input from every part of society: national governments, regional governments, cities, policymakers, regulators, supervisors, multilateral organisations, public development banks, humanitarian agencies, civil society groups, philanthropic organisations, academic institutions,

(re)insurance companies, (re)insurance brokers, data and technology companies, and other stakeholder groups. The Agenda explicitly states this in paragraph 52 (UN, 2015b):

"We the peoples" are the celebrated opening words of the Charter of the United Nations. It is "we the peoples" who are embarking today on the road to 2030. Our journey will involve Governments as well as parliaments, the United Nations system and other international institutions, local authorities, indigenous peoples, civil society, business and the private sector, the scientific and academic community – and all people. Millions have already engaged with, and will own, this Agenda. It is an Agenda of the people, by the people and for the people – and this, we believe, will ensure its success."

Yet, the business-as-usual path that has led us to where we stand today is relentlessly marching us towards greater economic inequalities, fractured societies, and irreversible environmental tipping points. Progress across the SDGs has been incredibly slow with only 16 percent of the targets on track to be met globally by 2030, with the remaining 84 percent showing limited progress or a reversal of progress (Sachs, Lafortune and Fuller, 2024)⁵. The challenges and disruptions that have impeded this progress are widely known and well-documented: the COVID-19 pandemic, conflicts and humanitarian crises, climate change and climate breakdown, nature and biodiversity degradation and loss, rising inequalities, socio-political instabilities, geopolitical tensions, energy supply problems, food shortages, global supply chain disruptions, high inflation rates, and digital technology advancements⁶. These cascading and compounding risks are obscuring our vision for a sustainable future while new and emerging risks will present additional obstacles in the years ahead.

⁵ **SDG Data:** The SDG Transformation Center is a flagship program of SDSN. It produces science-based tools and analytics for SDG pathways, policies, and financing. These open science resources include the annual Sustainable Development Report and interactive tools. More information is available at https://dashboards.sdgindex.org/.

⁶ **Global Risks:** These represent a selection of the global risks affecting households, businesses, and governments. The World Economic Forum's annual Global Risks Report presents a more detailed risk landscape which also considers the consequences of these risks and the necessary risk management measures. The 2025 report is available at: https://www.weforum.org/publications/global-risks-report-2025/

Worryingly, the climate alarm bell is ringing louder. Climate scientists believe that planetary health is deteriorating quicker than predicted and that the effects will acutely impact every nation (Caesar et al., 2024; Rockström, 2024). Plus, the 2024 Lancet Countdown on health and climate change reported that 10 of the 15 indicators used to monitor climate change-related health hazards, exposures, and impacts have reached concerning new records (Romanello, Marina et al., 2024), signalling that the impacts of climate change on life and health insurance companies will escalate (Geneva Association (2024a). Additionally, the world economy is already facing an income reduction of 19% by 2050 due to climate change, equating to USD 38 trillion per annum (Kotz, Levermann and Wenz, 2024), while the World Economic Forum estimates that average annual company earnings will experience a drop of between 6.6% and 7.3% by 2035 without evidence-based resilience strategies (WEF, 2024).

Unfortunately, more indicators are available to illustrate the direction of travel across all four dimensions of sustainable development. The scope, scale, and speed of our collective efforts are far behind where they need to be. The size of these challenges can feel daunting, paralysing even, but creative ideas, promising innovations, and proven solutions surround us. There is no reason to give up hope. Partnerships offer a promising pathway, but before considering this powerful lever for change it is necessary to understand how sustainable development has evolved over the past 80 years.

A BRIEF HISTORY OF SUSTAINABLE DEVELOPMENT

The following paragraphs outline some of the significant development milestones over the past decades, emphasise the central importance of the UN 2030 Agenda for Sustainable Development, and briefly signpost what is expected beyond 2030.

Economic growth was the prized development metric from the establishment of the UN in 1945 until the mid-1980s when the UN report, **Our Common Future**, often referred to as the 1987 Bruntland Commission report, provided the seminal definition for sustainable development: "Humanity has the ability to make development sustainable to ensure that it meets the needs of the present without compromising the ability of future generations to meet their own needs" (UN, 1987). Our Common Future signalled a change in development thinking from the prevailing economic mindset to include human development although environmental issues were still largely viewed as local problems such as air pollution and water contamination rather than planetary challenges.

World leaders adopted the **Millennium Declaration** following the Millennium Summit at the UN headquarters in New York in September 2000. This declaration contained goals regarding peace, security, and disarmament; development and poverty eradication; protecting our common environment; human rights, democracy and good governance; protecting the vulnerable; and meeting the special needs of Africa (UN, 2000). This declaration subsequently informed the **Millennium Development Goals** (MDGs), a collection of eight goals and 21 targets, which were to be achieved by 2015. While the MDGs were a global initiative, they were primarily designed to address the specific challenges faced by developing countries, including extreme poverty, hunger, disease, and lack of education.

The **2012 UN Conference on Sustainable Development** took place in Rio (also known as Rio+20), resulting in an outcome document, **The Future We Want**. At the conference, Member States decided to launch a process to develop a set of Sustainable Development Goals across economic, social, environmental, and governance dimensions that built on the MDGs. Furthermore, The Future We Want directed that the SDGs "should be actionoriented, concise and easy to communicate, limited in number, aspirational, global in nature and universally applicable to all countries while taking into account different national realities, capacities and levels of development and respecting national policies and priorities" (UN, 2012). The UN Sustainable Development Solutions Network (SDSN) was launched

in 2012 to mobilise global scientific and technological knowledge on sustainable development, including the design and implementation of the post-2015 agenda.

The **UN 2030 Agenda for Sustainable Development** ("Agenda") and its 17 SDGs and 169 targets were unanimously adopted by all 193 United Nations Member States in September 2015. This was closely followed in December 2015 with the adoption of the **Paris Agreement** by 196 Parties at the UN Climate Change Conference, also known as the Conference of the Parties or COP 21. The Paris Agreement is a legally binding international treaty on climate change. It complements the Agenda, specifically SDG 13 – Climate Action, noting that environmental sustainability cannot be achieved without progress across all 17 Goals. Indeed, the Paris Agreement repeatedly and explicitly states that climate change efforts must be pursued "in the context of sustainable development and poverty eradication" (UNFCCC, 2015).

2015 was a busy year for development agreements. The Sendai Framework for Disaster Risk Reduction 2015-2030 was adopted in March. It aims to achieve "the substantial reduction of disaster risk and losses in lives, livelihoods and health and in the economic, physical, social, cultural and environmental assets of persons, businesses, communities and countries" (UNDRR, 2015). The risk reduction and resilience building ambitions embedded in the framework are closely aligned with numerous targets within the Agenda. The Addis Ababa Action Agenda (AAAA) was adopted at the Third International Conference on Financing for Development in July. This established a new global framework for financing sustainable development by aligning all financing flows and policies with the economic, social, environmental, and governance priorities set out in the UN 2030 Agenda (UN, 2015a). The Fourth International Conference on Financing for **Development** (FFD4)⁷ will take place in Sevilla, Spain from 30 June to 3 July, 2025. This will assess progress in the implementation of the AAAA and support reform of the international financial architecture (UN, 2023a).

While the Paris Agreement centres on climate change mitigation and adaptation, the **Kunming-Montreal Global Biodiversity Framework** (KMGBF) sets out an ambitious pathway for the world to live in harmony with nature and biodiversity. This framework was adopted at

the UN Biodiversity Conference in Montreal in December 2022 following a four-year consultation and negotiation process. Again, the framework overtly links its work to the Agenda stating that it "is a contribution to the achievement of the UN 2030 Agenda for Sustainable Development.... in all its dimensions" (UNEP, 2022). The KMGBF closely links to SDG 14 – Life below Water and SDG 15 – Life on Land

In 2021, UN Secretary-General António Guterres published Our Common Agenda in response to a request from world leaders to get the world back on track to tackle interconnected challenges. It set out a vision for the future of global cooperation to turbocharge implementation of the SDGs and outlined possible solutions to address the gaps and risks that have emerged since 2015. Alongside the SDGs and their targets, the UN 2030 Agenda also incorporates important means of implementation (MOIs). These include partnerships, technologies, and education at all levels towards the achievement of sustainable development. Our Common Agenda called for three MOI-related Summits: the Transforming Education Summit in 2022, the Summit of the Future in 2024, and the World Social Summit in 20258. World leaders considered proposals to accelerate SDG progress at the Summit of the Future and adopted a Pact for the Future, a Global Digital Compact, and **Declaration on Future Generations**. The Pact contains 56 actions across a broad range of themes, including financing for sustainable development; peace and security; science, technology and innovation, and digital cooperation; youth and future generations; and transforming global governance. These actions are expected to drive "concrete political steps and mobilize significant additional financing from all sources for sustainable development" (UN, 2024b).

It is important to understand that these UN multilateral development agreements do not exist in isolation. They inform the global, regional, national, and local policies and regulations that guide our day-to-day lives. For example, the **European Green Deal** is the European Commission's response to the Agenda, stating that it "is an integral part of this Commission's strategy to implement the United Nation's 2030 Agenda and the sustainable development goals" (EC, 2019). The European Green Deal has led to several regulations and legislative proposals since it was proposed in December 2019. Therefore, a direct line can be drawn between the Agenda and sustainability regulations such as the **Corporate Sustainability Reporting Directive**

⁷ **FFD4:** More Information is available at: https://financing.desa.un.org/ffd4

⁸ **World Social Summit:** The Second World Summit for Social Development will take place from 4 to 6 November, 2025 in Doha, Qatar. Information is available at: https://social.desa.un.org/second-world-summit-for-social-development

and the **Corporate Sustainability Due Diligence Directive**. Similar regulations and legislative proposals in other jurisdictions can equally find their genesis in the Agenda, the Paris Agreement, the Sendai Framework, the Addis Ababa Actions Agenda, and the Kunming-Montreal Biodiversity Framework.

Finally, what will replace the Agenda in 2030? Action 12 from the Pact for the Future invites the **High-level Political** Forum on Sustainable Development (HLPF) to consider this question during UN General Assembly in September 2027. The HLPF is the platform responsible for reviewing the Agenda's progress. It is widely expected that the HLPF will recommend to the 193 Member States that the SDGs are strengthened and expanded beyond 2030, as there have been no noteworthy suggestions that the SDGs should be abandoned or that an alternative approach for framing, guiding, and measuring development efforts is required. Indeed, it is recognised that asking public and private sector organisations to adopt new goals and targets would undermine all the investments of time, energy, and resources they have made into integrating the SDGs into their work. However, irrespective of what the post-2030 agenda will be, there is an immediate and urgent need to turbocharge progress across the SDGs. How might rocket fuel be poured on these ambitions?

TRANSFORMATIONAL PARTNERSHIPS AND FINANCE: Catalysing the Vision of Tomorrow

The Agenda and related UN multilateral development agreements are valuable maps to a sustainable future, but they are meaningless without substantive and substantial action. It is clear that most of the SDGs will not be met by 2030, yet the most powerful means of implementation available to us is repeatedly signposted in the Agenda: partnerships. The Agenda calls for partnerships that "will facilitate an intensive global engagement in support of implementation of all the Goals and targets, bringing together Governments, civil society, the private sector, the United Nations system and other actors and mobilizing all available resources" (UN, 2015b).

The size of our interconnected challenges requires a whole-of-society approach to ideate, innovate, and scale impactful solutions. While the Agenda's vision was shaped through global negotiations involving the public and private sectors, its implementation depends on government-led, government-induced, and government-resourced multistakeholder partnerships. Achieving the SDGs cannot rely on market forces alone. Instead, governments and stakeholders must collaborate effectively at local, national, regional, and global levels to shape markets in ways that create positive synergies between economic, social, and environmental outcomes.

Partnerships are known by many names: alliances, associations, collaborations, cooperations, and joint ventures. Regardless of what language is used, it is important to recognise that there are various types of partnerships, and to understand which types of collaborations are best suited to powering progress across the SDGs. Partnerships exist on a continuum from transactional, client-vendor-type relationships to transformational, co-creation collaborations. The former typically involves one organisation paying another for products and services whereas the latter requires organisations to pool their complementary resources such as expertise, finance, networks, and technologies to create new types of value. Therefore, transformational collaborations generate outcomes that are greater than the sum of their parts. These types of partnerships are much more likely to generate change at the scope, scale, and speed demanded in the Agenda than transactional, often zero-sum game relationships.

Transformational partnerships are also required to create and share knowledge, and create knowledge transformation pathways. The science-policy-practice interface has long dominated development efforts. In summary, this means that scientific evidence informs policy development and that policies and regulations shape practice in the real world. Why then is the scientific evidence about our economic, social, environmental, and governance deficits not driving the required change? What is missing from the sciencepolicy-practice interface? We believe that this linear process does not allow for sufficient input and knowledge from on-the-ground practitioners to the academic, scientific, and policymaking communities that draft development agendas and frameworks. And this is why our Position Paper draws upon insights from a diverse and balanced group of public and private sector experts.

Another means of implementation that requires significant fuelling is finance. The SDG financing gap stands at USD 4.2 trillion annually, up from USD 2.4 trillion before the COVID-19 pandemic (UN, 2024b). It is widely held that the international financial architecture, which was set up at the 1944 Bretton Woods Conference, is no longer fit for purpose (UN, 2023b; UN, 2024b). Evidencing this, the Pact for the Future contains many actions to reform the international financial architecture and mobilise additional finance towards the SDGs (UN, 2024a).

It is crucial that every source of finance, public and private, is activated in ways that minimise reliance upon limited government assets and capabilities and maximise private sector resources. We are not proposing that companies replace their profit seeking impulses with social enterprise philosophies. Rather, the SDGs are an investment agenda (Sachs et al., 2023). They signal where investments are needed. Investments of finance, but also of expertise, networks, and technologies. Together, more multistakeholder partnerships and greater finance can spark the transformational innovations required to turbocharge progress across the SDGs.

Similar to partnerships, "finance" is broadly defined within UN multilateral development agreements. While these agendas and frameworks predominantly focus on the instruments of banks and investors, the insurance industry, a critical component of the global financial system, remains largely overlooked. This is particularly perplexing considering that (re)insurance companies pay out claims and benefits of USD 5-5.5 trillion annually (Geneva Association, 2022b) and hold liabilities on their balance sheets of USD 36 trillion (IAIS, 2024). Given this substantial economic and societal role, this paper investigates the underrepresentation of the insurance industry in development discourse and explores strategies for better leveraging its distinctive risk management and risk transfer capabilities. This analysis begins with an examination of the insurance industry's limited visibility within existing development agendas and frameworks.

⁹ **International Financial Architecture:** Sachs et al. (2023) define it as "the complex system of public and private finance that channels the world's savings to the world's investments...(it) includes multilateral institutions (e.g. IMF, World Bank), national and local budgets, public borrowing and debts, and private equity and debt financing. Financial institutions that intermediate savings and investments play a key role, including national and public development banks (publicly owned banks that borrow from capital markets to on-lend to public and private entities), sovereign wealth funds, private-sector banks, insurance funds, pension funds, asset management funds, venture capital, credit rating agencies, and others."

CHAPTER 3

THE LIMITED VISIBILITY OF INSURANCE IN UN MULTILATERAL DEVELOPMENT AGREEMENTS

The industry's risk management and risk transfer capabilities receive limited explicit attention in the development agreements outlined in the previous chapter. While these agendas and frameworks repeatedly promote "finance" as a critical transformation lever, a closer examination reveals a focus on the instruments of banks and investors, public and private. Despite the insurance industry's significant role as an institutional investor, this paper concentrates on its unique risk-related strengths and solutions, as these are the capabilities that provide a different pathway to sustainable development.

UN 2030 AGENDA FOR SUSTAINABLE DEVELOPMENT AND THE PACT FOR THE FUTURE

The Agenda contains one explicit reference to "insurance." This appears in SDG 8 – Decent Work and Economic Growth, specifically Target 8.10 to "Strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all" (UN, 2015). While this inclusion appears positive initially, the indicators linked to this target largely relate to banking inclusion: the number of commercial bank branches per 100,000 adults; the number of automated teller machines per 100,000 adults; and the proportion of adults with an account at a bank or other financial institution or with a mobile-money-service provider. This banking centric focus means that the progress of insurance inclusion is not being effectively measured.

Naturally, this method of analysis – the number of explicit references to "insurance" – is quite simplistic and ignores implicit references. For example, SDG 1 – No Poverty contains target 1.5 to "build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and disasters." The indicators linked to this target relate to the number of deaths and economic losses attributed to disasters, and the number of countries and local

governments that adopt and implement risk reduction strategies. The insurance industry's capabilities have roles to play here. Another example is SDG 3 – Good Health and Wellbeing and target 3.8 to "Achieve universal health coverage, including financial risk protection, access to quality essential health-care services and access to safe, effective, quality and affordable essential medicines and vaccines for all." In this context, "financial risk protection" is widely understood to mean social protection programmes and complementary and supplementary private insurance solutions.

It could be argued that the industry's capabilities are called for throughout the Agenda within the many references to risk awareness, prevention, reduction, preparedness, management, adaptation, financing, and resilience in SDG 2 – Zero Hunger, SDG 9 – Industry, Innovation and Infrastructure, SDG 11 – Sustainable Cities and Communities, SDG 13 – Climate Action, SDG 14 – Life below Water, and SDG 15 – Life on Land. Nevertheless, the limited visibility of "insurance" sharply contrasts with the clear and obvious attention that banking and investment tools receive across the 17 SDGs and their 169 targets.

The recently agreed Pact for the Future ("Pact") aims to turbocharge progress on the SDGs. It includes a dedicated chapter on financing, yet insurance remains conspicuously absent. This is particularly striking given the prominent spotlight on banking, lending, debt, and investment tools as catalysts for change. While the Pact frequently employs terms like "adaptation finance," "risk," and "resilience," it notably fails to advocate for harnessing the insurance industry to advance the SDGs with zero references to "insurance" or any derivatives. Why are the industry's solutions repeatedly overlooked in the Agenda and the Pact when households, businesses, and governments require more support than ever to help navigate crises, build resilience, and enable transformations from unsustainable to sustainable practices?

OTHER DEVELOPMENT AGENDAS AND FRAMEWORKS

This section will briefly consider how insurance is treated in the four other UN multilateral development agreements introduced in the previous chapter, all of which acknowledge that their objectives are linked to the pursuit of sustainable development.

The **Paris Agreement** acknowledges the potential role of insurance in addressing climate risks within Article 8, stating that areas of cooperation may include "risk insurance facilities, climate risk pooling and other insurance solutions" (UNFCCC, 2015). In contrast, while the **Kunming-Montreal Global Biodiversity Framework** (KMGBF) recognises the importance of finance, it is notably vague regarding the specific financial instruments required to achieve its objectives. Despite some acknowledgment of the potential for insurance solutions at recent conferences to progress the Paris Agreement and the KMGBF, its role remains overshadowed by a greater emphasis on banking and investment instruments.

In the context of disaster risk reduction, the **Sendai Framework for Disaster Risk Reduction 2015-2030** contains a single reference to "insurance" in the framework's priority to invest in disaster risk reduction efforts, "promote mechanisms for disaster risk transfer and insurance, risk-sharing and retention and financial protection, as appropriate, for both public and private investment in order to reduce the financial impact of disasters on Governments and societies, in urban and rural areas" (UNDRR, 2015). This single reference, while positive, hints at a need for more explicit guidance on how insurance should be integrated into disaster risk reduction strategies.

Furthermore, when it comes to financing sustainable development, the **Addis Ababa Action Agenda** (AAAA) only mentions "insurance" in four of its 134 paragraphs while "banking," "lending," "debt," "investing," and "investment" feature more than 150 times (UN, 2015a). Relatedly, an interagency task force of over 60 entities, including UN agencies, the World Bank Group, the International Monetary Fund, and the International Association of Insurance Supervisors

produce the annual *Financing for Sustainable Development Report* to examine progress on the AAAA. Disappointingly, these lengthy reports (the 2024 report was 231 pages) perpetuate the imbalance between insurance, banking, and investment activities. The 2024 report mentioned private insurance solutions about 10 times while the five words highlighted above were referenced approximately 1,500 times (UN, 2024a).

SUMMARY

In this chapter, we have revealed the persistent underrepresentation of insurance in key development agendas and frameworks. While the Agenda, Pact, Paris Agreement, KMGBF, Sendai Framework, and AAAA emphasise risk management and finance as crucial levers, their focus disproportionately favours the instruments of banks and investors, public and private. Despite the insurance industry's relevance to risk management and resilience, its potential is consistently overlooked. This is critically concerning when the Agenda calls for a whole-of-society approach to ideate, innovate, and scale impactful solutions, yet only 16 percent of the SDG targets are on track to be met globally by 2030.

It is unclear whether the organisations responsible for crafting these agreements have adequately considered the potential contribution of insurance. This may partly stem from a failure by the industry to effectively communicate the societal value of its solutions using language, data, and evidence that is meaningful to these organisations. Moreover, there may be insufficient dialogue between the public and private sectors on how the industry's capabilities help manage risks and build resilience, impeding a deeper understanding of how insurance can contribute more to societal goals. The next chapter will illustrate the close links between insurance and the four dimensions of sustainable development.

CHAPTER 4

LINKING INSURANCE TO SUSTAINABLE DEVELOPMENT

The UN 2030 Agenda for Sustainable Development ("Agenda") and insurance – social protection programmes and private insurance solutions – exhibit a compelling symmetry. The guiding concept – the principle of mutuality – at the heart of insurance is that many pay for the few, meaning that many people pay insurance premiums so that a few people receive financial support when they experience unforeseen economic, social, environmental, and governance shocks. This elegantly mirrors the Agenda's central, transformative promise to Leave No One Behind. This paper focuses on private insurance solutions.

(Re)insurance companies¹⁰ possess two distinctive capabilities. First, the industry's data analytics, modelling, and risk management expertise supports the proactive understanding, prevention, reduction, preparation for, and management of diverse risks. Second, these capabilities are complemented with the industry's financial risk transfer solutions. These financial safety nets play a vital role in managing risks that cannot be effectively mitigated through other means, enabling households, businesses, and governments to recover and rebuild quicker following unforeseen events.

This chapter provides a snapshot – not a forensic examination – of how these capabilities link to the economic, social, environmental, and governance dimensions of sustainable development. While the potential for insurance to support the achievement of societal objectives and all 17 SDGs is considerable, empirical evidence substantiating this potential remains limited (Geneva Association, 2022a; Eling, 2024; Iyahen, 2025). But before looking at how insurance relates to the four dimensions of sustainable development, it is valuable to understand the risk management paradigm.

THE RISK MANAGEMENT PARADIGM

Crafting a risk management strategy and identifying where insurance might fit into this requires an understanding of the risk management paradigm, the overarching conceptual framework for managing risks¹¹. It begins with a thorough awareness and comprehension of potential risks, including their quantified likelihood and potential impact. Central to this understanding is a structured process of risk assessment and prioritisation, which ensures resources are allocated effectively to address the most critical threats. Households, businesses, and governments then employ various strategies, including prevention and reduction measures to mitigate these risks, considering their own risk appetite and tolerance.

Preparation for inevitable events, such as the climate-related shocks that are increasing in frequency and severity, helps build resilience. Ideally, people, companies, and societies will exhaust all risk management efforts, minimising insurable risks to unpredictable and random events. However, resource constraints and the complexity of risks frequently leave residual financial risks. This is where the insurance industry's financial risk transfer solutions come into play. By transferring these residual financial risks to insurers, economic actors – households, businesses, and governments – gain crucial financial protection, allowing them to live and operate with greater confidence and stability.

In addition, the cost of these risk transfer solutions, i.e. insurance premiums, provide insights and send signals on where risks are expanding and where greater investments are required into risk awareness, prevention, reduction, preparation, and management efforts. This feedback loop

¹⁰ **Insurance & Reinsurance:** This paper repeatedly refers to "(re)insurance companies," meaning insurers and reinsurers. Non-insurance audiences are rarely familiar with reinsurance and how it differs from insurance. In effect, reinsurance is insurance for insurers. We deal with primary insurance companies in our day-to-day lives whereas reinsurers sit behind insurers. The primary purpose of reinsurance is to spread risk and protect primary insurers from incurring excessive losses due to catastrophic events such as climate-related shocks. The availability and affordability of many insurance products would change dramatically if insurers could not transfer a portion of their risks to reinsurers. Without reinsurance, insurers would 1. carry more risks on their balance sheets, increasing the likelihood of bankruptcy; 2. stop underwriting some risks, reducing the availability of insurance; 3. continue underwriting these risks, but with higher premiums, impacting affordability; or 4. not underwrite some risks at all, stifling innovation related to sustainability topics such as renewable energy technologies and products for low-income populations. Information about the economic and societal value of reinsurance is available at: https://www.grf.info/publications/value-of-reinsurance and a more detailed examination of reinsurance is available at: https://www.swissre.com/dam/jcr.d06472ab-2625-486f-8b4e-7c7ac8aa63f0/The-essential-guide-to-reinsurance.pdf

**Risk Management Paradigm: This conceptual framework can be used to craft any type of risk management strategy. For a deeper dive into managing climate and disaster risks, including via the use of insurance solutions, GIZ, the German development agency, published a valuable toolkit in April 2025, Climate and Disaster Risk Finance: A Mosaic of Instruments: <a href="https://www.ad

is crucial. Without acting on a signal, a risk will rise to a level where it is not economically feasible for (re)insurers to offer a risk transfer solution, creating insurability challenges. And without insurance, the effects of shocks impose greater economic burdens on people, companies, and societies.

Finally, while insurance is a cornerstone of risk management and serves as the focus of this paper, it is crucial to recognise that other solutions are available and more appropriate to manage certain risks. Public and private investments into risk mitigation efforts are essential to prevent and reduce the likelihood and impact of potential risks; and savings, loans, social protection, other government programmes, and humanitarian assistance are alternative financial resilience tools (Plichta and Poole, 2024). It is not insurance or these alternative approaches. Combined, they amplify one another to create an holistic risk management strategy.

A. ECONOMIC

There are many ways in which the industry's contribution to economies and economic prosperity can be quantified. In addition to its risk management and risk transfer capabilities, it is worth noting that the industry is a major institutional investor with assets exceeding USD 40 trillion (IAIS, 2024). (Re)insurers manage these assets for their own accounts and, in certain instances, on behalf of clients through insurance-based investment products such as retirement savings accounts. This is not erratic capital that jumps around seeking quick gains, it is oriented towards the medium- to long-term (Liedtke, 2007).

Annual insurance premiums are approximately USD 6.5 trillion (Allianz, 2024) while (re)insurance companies pay out claims and benefits of about USD 5-5.5 trillion annually (Geneva Association, 2022b). (Re)insurers also hold liabilities on their balance sheets of USD 36 trillion (IAIS, 2024), a sizeable portion of which will be used to pay future claims and benefits. These figures demonstrate that the industry represents a considerable portion of the global economy valued at approximately USD 115 trillion (IMF, 2024) and underscore its substantial influence on development ambitions.

The industry is a significant driver of employment globally with Insurance Europe, an industry representative association, estimating that the industry employs over 920,000 people in the European Union (2024). In the United States, the Bureau of Labor Statistics calculates approximately 3 million jobs within the insurance sector (III, 2024). Moreover, the industry creates substantial indirect employment across diverse sectors, including consulting, legal, and technology, contributing to economic growth and job creation.

Assets, premiums, payouts, and employment figures only partly reveal the industry's contribution to the economy. It plays a more fundamental albeit frequently overlooked role in well-functioning economies. Insurance is a precondition for many households, businesses, and governments to take risks and innovate in the real economy. While lending and investment activities power economic growth, insurance solutions are often required to derisk and unlock these sources of finance. For example, Howden, one of the world's largest (re)insurance brokers, estimates that USD 19 trillion has been committed towards the energy transition, but deploying this money will require additional insurance coverage of up to USD 10 trillion by 2030 (Howden and BCG, 2024).

To further analyse the industry's impact, it is useful to consider specific metrics such as the insurance penetration rate. This is used for evaluating the industry's contribution to a nation's economy and overall financial resilience. Calculated as the ratio of total insurance premiums to a nation's Gross Domestic Product, it essentially measures the amount of money spent on insurance premiums compared to the total economic output of a country. The combined penetration rate for all types of insurance exceeds 10% in developed economies such as France, the United Kingdom, and the United States, but it is typically low single digit in developing nations (OECD, 2024). In general, a high penetration rate suggests a mature insurance market that provides economic actors with greater financial protection against certain risks whereas a low penetration rate signals limited financial resilience.

Allianz (2025), one of the world's largest insurers, examined the links between the Life and the Property and Causality (P&C) insurance penetration rates and the SDG Index, a product of the UN Sustainable Development Solutions Network (SDSN), that assesses a nation's performance on the SDGs. They show that there is a positive relationship between insurance penetration and the SDG Index, but what does this mean?

- → Life insurance penetration (often includes health, savings, investment, and pension products): The correlation coefficient with the SDG Index indicates a moderate positive relationship. For every 1% increase in life insurance penetration, countries move on average 1.7 % closer to SDG achievement. This suggests that countries with higher life insurance penetration tend to have better SDG Index scores, although the relationship is not very strong.
- → P&C insurance penetration (everything that is not life insurance): The correlation coefficient with the SDG Index demonstrates a strong positive correlation with the SDG Index. For every 1% increase in P&C insurance penetration, countries move on average 5.8 % closer to SDG achievement, suggesting a close connection between P&C insurance and sustainable development.

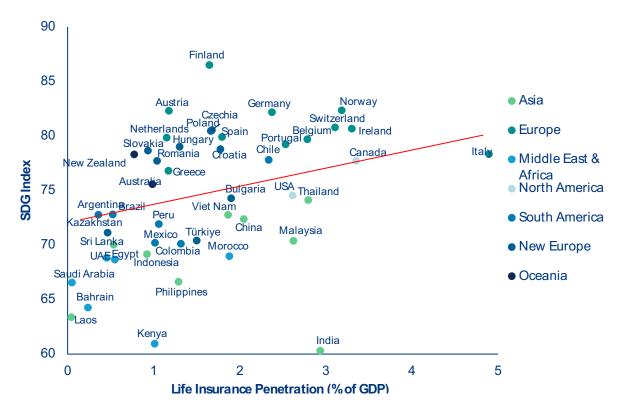


Figure 1. Life insurance penetration and the SDGs, without outliers (R2 = 0.09). Reproduced from Allianz (2025, p. 11).

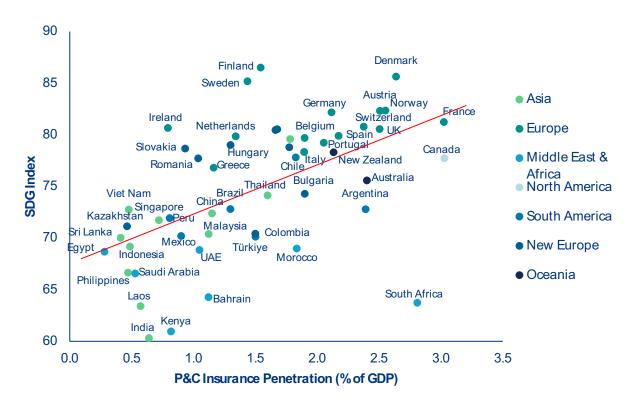


Figure 2. P&C insurance penetration and the SDGs, without outliers (R2 = 0.38). Reproduced from Allianz (2025, p. 11).

There are known limitations to using the insurance penetration rate in analyses such as this. For example, it offers little insight into insurance usage at the household level, particularly for socio-economic subgroups defined by age, ethnicity, health status, or income (Geneva Association, 2024b). That said, this study nevertheless contributes to the growing body of research demonstrating the societal value of insurance.

The Allianz research is a continuation of numerous studies demonstrating a strong correlation between higher insurance penetration rates and positive economic outcomes, highlighting the critical role of insurance in fostering financial resilience (World Bank, 2013). This empirical evidence emphasises the significance of expanding insurance coverage as a key driver of economic development. Recognising this crucial link, many developing countries have prioritised the inclusion of insurance products and services within their national financial inclusion strategies (AFI, 2022). This emphasis aligns with the broader objectives of Sustainable Development Goal 8 – Decent Work and Economic Growth, which explicitly targets increased access to insurance for all (UN, 2015b).

Another metric for assessing financial resilience is the insurance protection gap. This is the difference between the amount of insurance that is economically beneficial and the amount of insurance coverage in place (Geneva Association, 2024b). The Swiss Re Institute (2024) calculates that the global annual insurance protection gap is USD 1.83 trillion across four risks: crop (USD 77bn), natural catastrophe (USD 385bn), health (USD 940bn), and mortality (USD 414bn). Naturally, there are more risks and protection gaps. For instance, the global annual cost of uninsured cyber losses is approximately USD 900 billion (GFIA, 2023) while the global annual shortfall in retirement savings exceeds USD 1 trillion (GFIA, 2023). Unfortunately, the list of protection gaps goes on. The key takeaways from these massive figures are the vulnerability of households, businesses, governments to financial shocks and the urgent need for innovative solutions to mitigate risks and enhance resilience. Addressing these pervasive protection gaps is crucial for building a more resilient and sustainable future.

B. SOCIAL

The social dimension of sustainable development includes SDG 1 – No Poverty, SDG 2 – Zero Hunger, SDG 3 – Good Health and Wellbeing, SDG 4 – Quality Education, and SDG 5 - Gender Equality. Instead of a comprehensive investigation of all five, this section will focus on the role played by insurance in two of these goals, with the understanding that a broader analysis would reveal further contributions.

SDG1-No Poverty

Social protection transfers financial risk from individuals to society. It prevents and alleviates poverty, reduces vulnerability and inequality, and supports people to live in dignity. Everyone will have a need for social protection at some point in their lives, yet 3.8 billion people lack access to any type of social protection and many more have inadequate safety nets (ILO, 2024). This lack of protection contributes to almost 700 million people living in extreme poverty on less than USD 2.15 per day while a further 3.5 billion people remain poor by a standard that is relevant for upper middle-income nations at USD 6.85 per day (World Bank, 2024b). These 3.5 billion people are vulnerable to falling (back) into extreme poverty due to economic, health, climate, or conflict shocks (Fengler, Kharas and Caballero, 2022).

Private insurance can play a valuable role in addressing some of this protection gap and enhancing societal resilience. Insurance should not replace the universal social protection ambitions contained in SDG 1. Rather, it is complementary as it provides financial protection for those who can afford insurance premiums. This should minimise the strain on contributory and non-contributory social protection systems and allow these resources to be directed towards the most vulnerable sections of society such as children, the elderly, and those living with chronic illnesses. The optimal approach involves a combination of public and private solutions, not one or the other.

Despite its importance for risk management and resiliencebuilding, access to insurance remains insufficient with demand for insurance constrained by awareness, availability, accessibility, and affordability challenges (Swiss Re Institute, 2023; Geneva Association, 2024b; World Bank, 2024b). Tackling these barriers and developing insurance markets are fundamental levers to reduce multidimensional poverty (i.e., living standards, health, and education) and enhance resilience against shocks (Flores-Contró et al., 2024; World Bank, 2024b). Echoing the previous section, these efforts should be integrated with comprehensive financial inclusion efforts to ensure that households and businesses have access to a range of financial products, including banking, credit, and insurance, to effectively manage the risks they face.

SDG 3 - Good Health and Wellbeing

The world is off track to achieve the universal health coverage (UHC) target in SDG 3 as improvements to health services have stagnated since 2015, with 4.5 billion people lacking access to essential health services in 2021 (WHO and World Bank, 2023). In addition, over 1 billion people incurred catastrophic health spending by 2019 with 381 million people (further) pushed into extreme poverty due to these expenses (WHO and World Bank, 2023). Any amount of catastrophic health spending, defined as out-of-pocket payments exceeding 40% of a household's capacity to pay, can be a source of financial hardship, particularly for those living in or near poverty.

These data help explain the size of the annual health and mortality insurance protection gaps of USD 940 billion and USD 414 billion respectively (Swiss Re Institute, 2024). The health impacts of climate change will likely increase these gaps if nothing is done to reduce greenhouse gas emissions (Maslin et al., 2025). Similar to the complementary nature of private insurance to social protection programmes, life and health insurance can provide critical financial support when households experience the death of a breadwinner or ill health (Banerjee and Duflo, 2011). Furthermore, Gruber, Lin and Yi (2023) demonstrate how health insurance schemes are associated with healthier and longer-living populations, which can also reduce the burden on publicly funded healthcare systems.

Government health spending is a long-term investment, not a short-term cost. Research has repeatedly demonstrated a causal link between the existence of adequate healthcare services, including preventative initiatives, and nations' socio-economic performances (WHO, 2023a). Bell et al. (2024) calculated that a 20% reduction in the incidence of six major disease categories that keep people out of work would have significant macroeconomic benefits, raising the

UK's annual national income by GBP 19.8 billion within five years. This finding aligns with SDG Target 3.4, which aims to reduce non-communicable diseases through prevention initiatives and highlights another valuable opportunity for life and health insurers in sustainable development. Insurance companies are increasingly employing behavioural science to motivate customers to introduce healthier behaviours such as raising their activity levels. Customers are rewarded with lower premiums and other incentives; insurers benefit as healthy customers claim less; and healthy populations place a lower burden on public healthcare systems (Hafner, Pollard and van Stolk, 2018; Vitality and London School of Economics, 2024). While insurance solutions traditionally focus on providing financial safety nets for unforeseen events, life and health insurers' successful deployment of behavioural science demonstrates that they also possess risk management expertise that can be leveraged towards SDG 3 targets.

C. ENVIRONMENTAL

There are numerous links between insurance and the environmental dimension of sustainable development. This chapter will focus on one of these, specifically SDG Target 13.1 to "strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries." It will examine three key aspects of this target: the growing natural hazard protection gap, the critical role of proactive risk management to address vulnerabilities and build resilience, and the role of multi-stakeholder partnerships to effectively address these challenges. These aspects have been chosen due to their increasing importance in the context of climate change and their direct relevance to the insurance industry's financial risk transfer and risk management capabilities.

The Natural Hazard Protection Gap

In 2024, the natural hazard¹² protection gap, the difference between the amount of insurance that is economically beneficial and the amount of insurance coverage in place (Geneva Association, 2024b), was estimated to be USD 263 billion (Gallagher Re, 2025). This is calculated as the estimated total direct economic costs from extreme events linked to natural hazards of USD 417 billion minus (re) insurance company payouts of USD 154 billion. Gallagher Re calculated that these payouts are 27 percent above the 10-year average of USD 121 billion, commenting that

¹² **Natural Hazards:** The insurance industry often refers to these as "natural catastrophes" or "natural disasters," but these phrases are increasingly considered inaccurate and misleading. The word natural in "natural catastrophes" or "natural disasters" might suggest that catastrophes and disasters are purely acts of nature, beyond human control and therefore unavoidable. This downplays the significant role that human decisions and actions play in creating vulnerability and shaping the scale and impact of these events (UNDRR, 2022). For example, building properties and human settlements in floodplains will increase the frequency of flooding events that cause significant loss of life, economic losses, insured losses, and disruption.

it signals a direction of travel (rising losses and widening protection gaps) and reflects the growing effects of climate change.

The natural hazards causing these losses include droughts, earthquakes, floods, hurricanes, storms, and wildfires. While human-induced climate change is increasing the likelihood of many of these natural hazards, the link between climate change and some hazards such as earthquakes are less clear. In addition, natural hazard events caused more than 18,100 fatalities in 2024 (Aon, 2025). Welcomingly, this was far below the 21st century average (72,400) and median (38,900) per annum figures and consistent with a long-term decline in deaths due to investments into risk management efforts such as weather monitoring and forecasting, early warning systems, stockpiling supplies, evacuation planning, training first responders, disaster risk management, ecosystem-based initiatives, and resilient infrastructure (UNDRR, 2024). However, economic loss and fatality data does not capture the full impact of these shocks across the economic, social, environmental, and governance dimensions of sustainable development.

It is notable that the economic loss and insurance payout figures above are heavily weighted towards high-income nations with USD 117 billion of these payouts, 76 percent of the total, concentrated in the United States (US). This reflects the value of the assets damaged and destroyed by these events and the ability of households, businesses, and public sector organisations to (currently) purchase insurance in the US. This concentration underscores the vulnerability of un- and under-insured populations and assets in other parts of the world, particularly in developing nations that may be more susceptible to the impacts of natural hazards but have less financial capacity to absorb losses and invest into disaster risk management.

Governments' fiscal space in developing countries is a massive hurdle to achieving sustainable development yet they are crippled with excessive debt and high interest rates (World Bank, 2024a). Shockingly, 3.3 billion people live in countries that spend more on interest payments than education or health (UNCTAD, 2024). In addition, developing countries' interest payments outweigh investments into climate change mitigation and adaptation. Therefore, the increasing frequency and severity of climate-related shocks, interacting with the existing vulnerabilities of developing nations and their constrained financial capacities, will accelerate the vicious cycle of disaster and debt.

While it is crucial to enable households, businesses, and governments across the developed and developing worlds to access and afford insurance, there are mounting concerns about the availability of insurance due to the growing impact of climate-related shocks (Arnold-Dwyer, 2025a; Smith, 2024; Smith and Bryan, 2024; Smith, Mooney and Williams, 2024). If economic actors are unable to secure insurance, this raises the possibility of a domino effect on the other components of the financial system and the real economy (Flavelle and Rojanasakul, 2024): "Without insurance, banks won't issue a mortgage; without a mortgage, most people can't buy a home. With fewer buyers, real estate values are likely to decline, along with property tax revenues, leaving communities with less money for schools, police and other basic services. And without sufficient insurance, people struggle to rebuild after disasters." These challenges must be addressed via greater investments into risk management initiatives

Risk Management Innovations and Benefits

Given the expanding natural hazard protection gap and increasing concerns about the availability of insurance in the face of climate change, there is a clear and urgent need for greater investment and focus on comprehensive risk management efforts. While the insurance industry's financial risk transfer mechanisms offer financial risk protection, they are not a panacea. They provide compensation after disasters occur, but they do not prevent or reduce disaster risks from materialising or aid preparation work.

According to the United Nations Office for Disaster Risk Reduction (UNDRR, 2017a), disaster risk is "The potential loss of life, injury, or destroyed or damaged assets which could occur to a system, society or a community in a specific period of time, determined probabilistically as a function of hazard, exposure, vulnerability and capacity." And disaster risk management (UNDRR, 2017b) is the "application of disaster risk reduction policies and strategies to prevent new disaster risk, reduce existing disaster risk and manage residual risk, contributing to the strengthening of resilience and reduction of disaster losses."

Disaster risk management (DRM) is clearly a complex field, so this brief analysis will focus on where the insurance industry can fit into broader DRM strategies and tangibly support households, businesses, and governments to understand, prevent, reduce, prepare for, and manage risks before they consider transferring residual financial risks to (re)insurers. The International Cooperative and Mutual Insurance Federation (ICMIF)¹³ and UNDRR produced a valuable resource (2021) that examined the practical steps that (re)insurance companies can take to help people, companies, and societies across the risk management paradigm. Notably, the following seven mechanisms were identified from an analysis of ICMIF member real-world case studies, demonstrating that they are desirable, feasible, and viable¹⁴:

→ Direct mechanisms for insurance products to reduce disaster risks:

- Apply variable pricing of insurance to provide incentives for risk reduction
- Include prerequisites and exemptions to provide incentives for risk reduction
- Ensure investment reduces and prevents risk and builds resilience

→ Indirect mechanisms for insurance providers to reduce disaster risks:

- Raise awareness of the systemic nature of risks and provide transparent information and advice for reducing hazards, exposure, and vulnerability
- Build and share capacity and technology for risk modelling, analysis and monitoring
- Promote and enhance local social capital for responding to disasters and innovating to reduce risks
- Collaborate with the public sector to signal unsustainable development and support decision making towards disaster risk reduction and riskinformed investment while closing protection gaps

Continuing with the desirability, feasibility, and viability innovation framework. First, the desire and need for households, businesses, and governments to introduce (stronger) resilience building practices is unequivocal. Second, the feasibility of novel DRM strategies is increasingly

enabled by the advancements in artificial intelligence and data analytics technologies, remote sensing devices, satellite technologies, drone technologies, and catastrophe modelling tools and techniques (Sheehan et al., 2023). Finally, there is robust research and evidence regarding the economic business case for investments into risk management:

- → UNDRR (2023) estimates that every USD 1 invested in risk reduction and prevention can save up to USD 15 in post-disaster recovery while every USD 1 invested in making infrastructure disaster-resilient saves USD 4 in reconstruction activities.
- → Between 2000 and 2022, every additional 1 USD of risk mitigation spending by the Federal Emergency Management Agency spending in the US is associated with an average saving of USD 16 in damages (Cambridge Centre for Risk Studies, 2024).
- → The U.S. Chamber of Commerce (2024) calculates that each USD 1 invested in disaster preparation saves USD 13 in economic costs, damages, and cleanup. A recent example will demonstrate what these investments mean in practice.
- → The Zurich Climate Resilience Alliance, a multistakeholder partnership between humanitarian agencies, non-governmental organisations, research partners, and the private sector, regularly publishes research, best practices, and success stories about risk management efforts and their quantified benefits in developing countries (Climate Resilience Alliance, 2024). Notably, many efforts involve ecosystem-based initiatives.

Storm Boris caused devastating floods across central and eastern Europe in September 2024, generating insurance payouts of EUR 2.19 billion (Willard, 2025). However, Vienna, the Austrian capital, was left relatively unscathed due to a collection of flood management efforts (Hardach, 2024). Following the 2002 'big flood' which caused EUR 3 billion in damages, Austria has made annual investments of about EUR60 million into flood protection measures. Proving their effectiveness, a 2013 flood, eleven years after the 'big flood' and the sustained investments, caused economic losses of EUR 866 million, a striking example of the natural hazard risk management business case. From an insurance

¹³ **ICMIF:** This is a global representative association for cooperative and mutual insurance companies. In general, these insurers are owned by their policyholders rather than by shareholders, significantly reducing the potential for decisions that primarily prioritise shareholder returns over broader stakeholder interests. According to ICMIF (2024), there are over 4,700 cooperative and mutual insurers across the world. They have about 25% of the global market share in insurance premiums and manage assets of more than USD 10 trillion, illustrating their importance to the industry and society.

¹⁴ **Design Thinking:** The terms desirable, feasible, and viable are commonly associated with design thinking and innovation methodologies. These lenses are used to evaluate the potential success of new ideas and solutions. Desirability focuses on the needs and wants of stakeholders. Feasibility focuses on the ability of organisations to operationalise the ideas with available resources and capabilities. Viability focuses on the long-term financial sustainability of the innovation.

perspective, it is more likely that Austrians can access and afford financial risk protection due to these flood mitigation investments.

The evidence overwhelmingly supports a paradigm shift towards proactive and comprehensive disaster risk management. While insurance remains a vital tool for financial risk transfer within a broader DRM strategy, the societal desirability, operational feasibility, and economic viability of investing in risk awareness, prevention, reduction, preparation, and management initiatives offer a resilient pathway for households, businesses, and governments.

The Role of Multi-stakeholder Partnerships

Addressing the growing natural hazard protection gap and enhancing resilience via risk management initiatives requires a whole-of-society approach, recognising that the complexities of these challenges transcend the capacity of any single sector or any one organisation (Arnold-Dwyer, 2025a). This topic will be briefly examined here as the link between insurance and the governance dimension of sustainable development, which includes multi-stakeholder partnerships within and among countries, and within and across the public and private sectors, is explored in greater detail in the following section.

From a financial risk transfer perspective, the development of sovereign risk pools¹⁵ and catastrophe bonds¹⁶ increasingly relies on multi-stakeholder partnerships in developing countries. Indeed, the main four sovereign risk pools in Africa, the Caribbean and Central America, the Pacific, and Southeast Asia signed a Memorandum of Understanding to explore a joint reinsurance facility to enable more efficient risk transfer and access to capital market investors (ARC, 2024), and they will receive a grant of EUR 4.7 million to help implement these collaboration ambitions (Global Shield Solutions Platform, 2025).

Building upon the increasing adoption of financial risk transfer mechanisms like sovereign risk pools and catastrophe bonds, the Bridgetown Initiative represents a broader, systemic effort. This is a set of proposals for reforming the international financial architecture to better address the challenges faced by low- and middle-income countries, including small island developing states which are highly vulnerable to natural hazards (Bridgetown Initiative, 2022). These challenges focus on climate change-induced disasters risks and debt sustainability. Version 3.0 of the Bridgetown Initiative (2024) calls upon the International Monetary Fund, the World Bank, and other finance providers to include "climate vulnerability...in their criteria for allocating concessional finance" and to "boost country capacity to invest in resilience."

The Bridgetown Initiative also emphasises the need for "a viable insurance market, as a precondition for governments, businesses and individuals to invest in assets, whether infrastructure or homes" and calls on "bilateral donors to help expand and deepen insurance markets, including by capitalising regional risk pools for key assets in vulnerable countries, and provide greater support to countries in assessing climate risks and tools to manage them." Initiatives involving sovereign risk pools, the IMF, the World Bank, other providers of finance from across the public and private sectors, and the insurance industry will all require multi-stakeholder partnerships to innovate and scale the most promising risk transfer and risk management solutions.

The urgency for addressing protection gaps and investing in risk management initiatives through collaborative efforts is not limited to developing nations. In the developed world, monetary authorities, regulators, and supervisors are also emphasising the importance of multi-stakeholder partnerships. For example, the European Central Bank (ECB) and the European Insurance and Occupational Pensions Authority (EIOPA) have persuasively argued for the establishment of an EU public-private reinsurance scheme and an EU fund for public disaster financing (ECB and EIOPA, 2024). These proposed innovations aim to incentivise households, businesses, and governments to employ (stronger) risk management practices and enhance their financial resilience in the face of growing climaterelated risks. Two overarching drivers are presented to justify these recommendations:

¹⁵ **Sovereign Risk Pools:** These pools are a collaborative mechanism where multiple nations pool their disaster risks. This allows for more affordable and diversified access to pre-arranged financing for disaster risks, thereby enhancing member countries' financial resilience and reducing their reliance on governments' limited fiscal space, unpredictable aid, and humanitarian assistance. Examples of sovereign risk pools are presented in the next section.

¹⁶ Catastrophe Bond (CAT Bonds): CAT Bonds are a financial instrument that transfers a specific set of financial risks from nations and (re)insurance companies to capital market investors. They are typically used for natural hazards that can cause severe economic losses such as hurricanes and earthquakes (Reitmeier, 2024). The total amount of potential payouts covered by active CAT Bonds continues to grow and is on track to exceed USD 50 billion in the near future (Swiss Re, 2025). The World Bank is increasingly supporting nations to manage the financial dimensions of disasters risks via CAT Bonds in its Crisis Preparedness and Response Toolkit (World Bank, 2025).

- → **Protection gaps are growing:** Extreme events linked to natural hazards caused around EUR 900 billion in direct economic losses within the EU between 1981 and 2023, with 20% of these losses occurring in 2021-23. However, only about 25% of these losses were insured and this share is declining.
- → Expanding protection gaps will cause greater financial instability: The lack of insurance can slow down economic recovery following disasters, increasing banks' exposures to credit risk and weakening the fiscal position of governments when they step in to cover uninsured losses (ECB and EIOPA, 2023).

Echoing the ECB and EIOPA, the International Association of Insurance Supervisors note that "public-private partnerships may become increasingly important to correct market failures and address risk accumulation" (Möhr, Yong and Zweimueller, 2025). An important caveat is that the ability of financial risk transfer solutions, public and/or private, to cover growing losses attributable to climate change-induced and -intensified shocks is limited and can only be part of wider policy response to the climate crisis, including risk management initiatives.

In conclusion, mobilising and scaling multi-stakeholder partnerships are crucial to effectively tackle the escalating natural hazard protection gap and building resilience. Ultimately, a unified, multi-faceted approach is essential for creating a more secure and sustainable future in the face of increasing climate-related shocks.

D. GOVERNANCE

In the context of sustainable development, governance refers to the systems and processes that guide decision-making, implementation, and monitoring of actions to achieve the SDGs at the global, regional, national, and local levels (Murphy, Banerjee and Walsh, 2022). Despite its critical importance, this dimension is often overshadowed by the more prominent economic, social, and environmental dimensions. Yet, SDG 16 – Peace, Justice, and Strong Institutions, and SDG 17 – Partnerships for the Goals are foundational to achieve all other SDGs. This section will specifically examine multi-stakeholder partnerships within and among countries, and within and across the public and private sectors.

Multi-stakeholder partnership progress and momentum despite inattention

Since 2015, the year when many UN multilateral development agreements were signed, there has been a surge in multi-stakeholder partnerships and collaborations that are effectively leveraging the insurance industry's distinctive capabilities despite being largely overlooked in many development agendas and frameworks. The following organisations, orchestrators¹⁷, and programmes are some of the most prominent global initiatives that are innovating and scaling impactful risk management and risk transfer solutions to achieve the SDGs.

¹⁷ **Multi-stakeholder Partnership Orchestrators** are organisations that shape and guide the strategic development and tactical implementation of partnerships involving diverse stakeholders from within and among countries, and within and across the public and private sectors. They frequently source potential partners, convene exploratory meetings, help initiate collaborations, provide secretariat services to partnerships, and act as a type of translation layer between organisations. In addition, they often lead research projects and advocacy efforts.

TABLE 1:

GLOBAL INITIATIVES LINKING INSURANCE TO SUSTAINABLE DEVELOPMENT



The Access to Insurance Initiative was created in 2009 as the 'implementation arm' of the International Association of Insurance Supervisors on inclusive insurance. It was established in response to requests from policymakers, regulators, and supervisors for learning and advice on how they can encourage and support the development of insurance markets that make insurance available, accessible, and affordable to everyone. https://a2ii.org/



The Centre for Disaster Protection has been providing independent, credible, and evidence-based technical advice and training on disaster risk financing since it was established in 2017 with founding investment from the UK government. It does not implement or sell financial instruments. https://www.disasterprotection.org/



The Climate Resilience Alliance is a multi-stakeholder partnership that aims to enhance resilience to climate hazards in rural and urban communities via on-the-ground interventions and evidence-based research. Established in 2013 and funded by the Z Zurich Foundation, its partners are drawn from the humanitarian, NGO, research, and private sectors. https://zcralliance.org/





The Disaster Risk Financing and Insurance Program (DRFIP) is a joint initiative of the World Bank Group and the Global Facility for Disaster Reduction and Recovery. It was established in 2010 to improve developing nations' financial resilience against natural disasters. DRFIP supports governments to implement financial protection strategies via disaster risk financing, agricultural insurance, catastrophe risk insurance, and social protection programs. It also helps governments to mobilise public-private partnerships. https://www.worldbank.org/en/programs/disaster-risk-financing-and-insurance-program



The Global Shield against Climate Risks is a joint G7/V20 initiative to provide and facilitate more and better pre-arranged protection against climate and disaster related risks for vulnerable people and countries. It was launched in 2022 but is viewed as an evolution of the InsuResilience Global Partnership for Climate and Disaster Risk Finance and Insurance that was launched in 2017. https://www.globalshield.org/



Launched in 2015, the Insurance Development Forum is a multi-stakeholder partnership orchestrator that seeks to optimise and extend the use of insurance and related risk management capabilities to build greater resilience and protection. It operates six working groups: Risk Modelling; Law, Regulation and Resilience Policies; Sovereign and Humanitarian Solutions; Inclusive Insurance; Infrastructure Task Force; and Disaster Risk Reduction Task Force. https://www.insdevforum.org/



The ILO's Impact Insurance Facility works with public and private sector organisations to test innovative products and approaches aimed at extending valuable insurance protection to under-served groups. It subsequently documents lessons learned and promotes good practices through capacity building and market development. https://www.ilo.org/topics/social-finance/impact-insurance



The Microinsurance Network is a non-profit association that works with public and private sector organisations to provide low-income consumers with access to risk management solutions, including insurance products and services. https://microinsurancenetwork.org/



The Ocean Risk and Resilience Action Agenda is a partnership orchestrator working with the finance and insurance sectors, governments, non-profits, and stakeholders from coastal communities to pioneer finance products that help build the resilience of climate vulnerable coastal people in the Global South. https://oceanriskalliance.org/



UNDP is charting new pathways for insurance and risk finance to build resilience, incentivize growth, and safeguard development. The Insurance and Risk Finance Facility, housed within UNDP's Sustainable Finance Hub, is currently working with governments and the insurance industry at scale in 39 countries. The Facility is protecting countries and communities directly with insurance solutions, creating the long-term enabling environment for these solutions to scale and integrating the financial management of growing risks into all aspects of countries' financial decision making. https://irff.undp.org/



The UNEP FI Forum for Insurance Transition to Net Zero (FIT) is a multistakeholder dialogue forum to support the acceleration of voluntary climate action by the insurance industry. FIT convenes (re)insurers, brokers, regulators, supervisors, net-zero standard-setters and initiatives, the scientific and academic community, civil society, and other key stakeholders. https://www. unepfi.org/forum-for-insurance-transition-to-net-zero/



Launched at the 2012 UN Conference on Sustainable Development, the UNEP FI Principles for Sustainable Insurance (PSI) is a global framework for the insurance industry to address environmental, social and governance risks and opportunities. The PSI Initiative develops guides for (re)insurers to integrate sustainability factors into their underwriting practices. https://www.unepfi.org/insurance/insurance/

The emergence of sovereign risk pools

In addition to the rise of multi-stakeholder partnerships and initiatives, a significant advance over the past decade has been the emergence of sovereign risk pools, now supporting the climate and disaster risk financing objectives of approximately 100 nations. By shifting away from sub-optimal self-insurance mechanisms – where countries rely solely on their own reserves, often insufficient to cover large-scale disasters – these pools enable countries to better manage catastrophic events and minimise the devastating economic and social impacts of disasters. The four regional risk pools are presented below.

TABLE 2: SOVEREIGN RISK POOLS



The African Risk Capacity (ARC) Group is a Specialised Agency of the African Union. It was established to help governments improve their capacities to better plan, prepare, and respond to extreme weather events and natural disasters. ARC Limited was launched in 2014 as a mutual insurer to provide insurance and other risk transfer solutions. https://www.arc.int/arc-limited



In 2007, the Caribbean Catastrophe Risk Insurance Facility was formed as the world's first multi-country risk pool to limit the financial impact of devastating hurricanes, earthquakes, and excess rainfall events in the Caribbean region. The pool expanded to Central American governments in 2015. https://www.ccrif.org/



The Pacific Catastrophe Risk Insurance Company serves the disaster risk finance needs of the Pacific Islands through parametric climate and disaster risk insurance products and technical assistance. It was established in 2016 following a successful pilot insurance program launched by the World Bank in 2013. https://pcric.org/



The Southeast Asia Disaster Risk Insurance Facility (SEADRIF) provides participating ASEAN countries with insurance and risk management solutions against climate shocks and natural disasters. The SEADRIF Insurance Company was incorporated in 2019 to provide catastrophe risk insurance to it member countries. https://seadrif.org/the-seadrif-insurance-company/

Political setbacks and challenges

Mobilising multi-stakeholder partnerships and initiatives have not been without their challenges. One of the industry's most high-profile environmental sustainability initiatives, the Net Zero Insurance Alliance (NZIA), collapsed in 2023 due to the politicisation of sustainability topics in the US and pressure from Republican state officials, alleging potential antitrust violations (Hearn, Hanawalt and Sachs, 2023). Changes in political leadership across many nations over the past 12 months, including in the European Union and the United States of America, have introduced uncertainty regarding the future trajectory of corporate sustainability commitments. Financial companies may face pressure to re-evaluate their sustainability pledges, potentially hindering the growth of multi-stakeholder efforts and jeopardising progress towards sustainable development.

In contrast to the challenge faced by the NZIA, the European Commission's quidelines on co-operation between competitors explicitly acknowledge the importance of sustainability by stating that "antitrust rules do not stand in the way of agreements between competitors that pursue a sustainability objective" within the Sustainability Agreements chapter (EC, 2023). This recognition provides a crucial framework for encouraging collaborative action among competitors on sustainable development topics. Yet, despite the establishment of the Forum for Insurance Transition to Net Zero (FIT), the successor to the NZIA, the level of engagement from former NZIA members remains limited. This suggests a need for stronger legal and regulatory safeguards for multi-stakeholder initiatives involving competitors to flourish.

The surprising lack of life and health-related partnerships

Many of the multi-stakeholder partnerships, initiatives, and sovereign risk pools presented in this section prioritise environmental-related risks. This is understandable given the immediacy of climate change, climate breakdown, nature and biodiversity loss, and the devastating impacts of climate-related shocks. However, the combined annual health and mortality insurance protection gap of USD 1.354 trillion, which is 3.5 times larger than the natural catastrophe gap of USD 385 billion (Swiss Re Institute, 2024), suggests that life and health risks warrant greater attention from public and private sector organisations.

(Re)insurance companies are well placed to play a key role in addressing this substantial protection gap, as a significant portion of the industry manages mortality, morbidity, longevity, hospitalisation, long-term care, and employment risks today. Indeed, SDG Target 3.8 subtly points to insurance in achieving universal health coverage, albeit it references "financial risk protection" rather than "insurance." Recognising the need to finance health ambitions, spark innovation, and leverage the complementary strengths of the private sector, the World Health Organization Director-General has signalled the need to "build symbiotic public-private alliances to maximise public value, sharing both risk and rewards" (Mazzucato and Adhanom Ghebreyesus, 2024).

The Director-General's call to action reflects the Final report of the WHO Council on the Economics of Health for All (WHO, 2023a) and its repeated calls for public-private "alliances," "collaborations," and "partnerships." Notably, the report also explicitly connects "health, inequality, and climate," mirroring the social, economic, and environmental dimensions of sustainable development and emphasising that these challenges are interlinked. Why then do life and health-related risks appear to be unrepresented in the growing number of multi-stakeholder partnerships? This question is not attempting to find fault in the positive progress that has been made over the past 10 years. Rather, it seeks to highlight that the industry's capabilities can be better leveraged to mitigate risks and enhance financial resilience in the pursuit of sustainable development.

SUMMARY

This chapter has demonstrated the intrinsic link between the insurance industry's risk management and risk transfer capabilities and sustainable development. It has explored how they contribute to societal goals today and their potential to drive further progress across the economic, social, environmental, and governance dimensions.

Economically, insurance plays a vital role in promoting economic growth as evidenced by the industry's sizeable assets, annual payouts, financial commitments to pay future claims, and (in)direct employment contributions. Socially, private insurance complements public social protection programmes and healthcare services although there are awareness, availability, accessibility, and affordability challenges to overcome.

Environmentally, the industry has a key role to play in combatting climate-related risks. Its risk management expertise can better inform prevention and reduction efforts while its risk transfer solutions can be leveraged more to close protection gaps. Governance-wise, multistakeholder partnerships and initiatives are growing, particularly for environmental-related risks, yet life and health risks are notably underrepresented despite the interlinked nature of economic, social, and environmental risks.

Mainstreaming insurance into discussions around risk and resilience, mobilising more multi-stakeholder partnerships, and scaling existing alliances and initiatives are crucial to realising the industry's full potential in achieving the SDGs and related development objectives. The next chapter presents synthesised insights on these topics from 42 global experts and recommendations on how to implement change and propel substantive and substantial action.

CHAPTER 5

RESEARCH FINDINGS AND RECOMMENDATIONS

To gain a deeper understanding of why the insurance industry's distinctive capabilities receive limited attention in UN multilateral development agreements; explore how to mainstream discussions around risk, resilience, and insurance; and present ways in which the public and private sectors can scale the use of insurance solutions in development efforts, 42 in-depth research interviews were conducted. The research participants, also referred to as "participants" or "contributors" in this chapter, are senior administrators and executives with global roles across the public and private sectors.

Non-probability judgemental sampling (selecting participants based on our views of their expertise) was employed to identify an initial pool of 100 potential candidates with knowledge of insurance and sustainable development. Stratified sampling was subsequently applied to select 50 experts and personally invite them to participate in the study. An unstructured interview approach was used to collect the participants' qualitative insights. Each 45–60-minute interview was documented and shared with the participant to ensure an accurate representation of the discussion and to invite further thoughts. Many participants provided further insights upon reviewing their interview summary and the draft Position Paper.

A key objective was to ensure a balanced representation across the public and private sectors, genders, and geographical regions. This objective was successfully met with a 45% public sector and 55% private sector split, and a 40% female and 60% male participant split.

The interviews revealed 11 topics that illuminate the root causes of the research problem. These are presented as 11 design principles – practical guidelines for framing and guiding efforts to mobilise and scale the use of insurance in sustainable development efforts. This chapter presents a synthesis of these design principles rather than an exhaustive examination of every topic that emerged during these discussions. Based on these insights, 18 actionable recommendations are proposed to address the identified challenges and opportunities. These recommendations are evenly balanced between actions that should be taken by the public and private sectors. This balance was not an intentional design decision. Rather, it likely reflects the almost 50/50 split between our public and private sector participants.

We could have precisely targeted the recommendations at national governments, regional governments, cities, policymakers, regulators, supervisors, multilateral organisations, public development banks, humanitarian agencies, civil society groups, philanthropic organisations, academic institutions, (re)insurance companies, (re) insurance brokers, data and technology companies, and other stakeholder groups. However, a deliberate design choice was made to broadly point these recommendations towards the public and private sectors despite their diverse nature

Our strategy recognises that many of the challenges and opportunities outlined in this paper transcend specific segments of the public and private sectors and emphasises the critical need for a whole-of-society approach. Each entity should reflect on these recommendations holistically before considering which are best suited to its objectives, resources, and abilities. They should also consider how their actions complement and supplement others' efforts, recognising that no single organisation or sector will achieve sustainable development alone. Multi-stakeholder dialogue, partnerships, and initiatives within and among countries, and within and across sectors are critical to generate outcomes that are greater than the sum of their parts.

It is important to restate that the opinions expressed and arguments employed in this publication do not necessarily reflect the views of the authors, the research participants, or their affiliated organisations, acknowledged individuals or their affiliated organisations, Swiss Re, or any organisation, agency, or programme of the United Nations, or UN Member States.

A. ELEVATE THE ROLE OF INSURANCE IN DEVELOPMENT AGENDAS AND FRAMEWORKS

A broad open-ended question was posed to every participant about their views on why private insurance solutions receive limited attention in UN multilateral development agreements, and the sustainable development discourse in general. Their responses centred on four topics:

I. THE HISTORICAL DEVELOPMENT APPROACH TO RISK MANAGEMENT

In earlier development approaches, risk was often viewed as something that could be eliminated or significantly minimised. This led to a neglect of how residual financial risks might be managed after these risk management measures were implemented. Consequently, private sector solutions, such as the insurance industry's risk transfer solutions, which allow for financial payouts when risks materialise, were rarely considered.

However, this understanding has evolved in recent years. A few participants noted that every major development organisation involved in pre-arranged disaster risk financing has publicly acknowledged the need to manage residual financial risks through the use of (re)insurers' risk transfer solutions. This shift reflects a growing awareness of the inefficiencies and unpredictability of the traditional "begging bowl" approach to post-disaster funding, and a recognition that pre-arranged disaster risk financing can provide timely and reliable financial support when climate-related and humanitarian disasters inevitably occur¹⁸.

II. INSURANCE HAS LONG BEEN OVERSHADOWED BY THE BANKING AND INVESTMENT INDUSTRIES

Re)insurance companies have traditionally been viewed as institutional investors and asset managers by development organisations. This narrow perspective has excluded the industry's distinctive risk transfer and risk management capabilities. Some non-insurance audiences might point to the numerous references to "finance" throughout development agendas and frameworks as proof that insurance is recognised, but almost every participant noted that "finance" in these contexts is commonly used to describe banking and investment activities, not insurance.

Several participants argued that this problem is compounded by the makeup of the public sector finance community, observing that it is overwhelmingly staffed with economists, bankers, and investment professionals. Also, it was asserted that the "heavy weight" public sector components of the global financial system – the World Bank Group, the International Monetary Fund, and Public Development Banks – mostly use lending and investment instruments to achieve their objectives. There is no equivalent "heavy weight" organisation that specialises in risk transfer and risk management solutions.

Banking presents a greater systemic risk to the real economy than insurance. Problems at one bank can cause contagion within and across regions due to the banking industry's interdependence whereas (re)insurers' risk transfer activities are not connected in the same way. Plus, while (re)insurance companies fail, these happen slowly as failures are rarely a liquidity issue and these insolvencies rarely cause systemic issues, as was seen during the 2008 Global Financial Crisis.

¹⁸ **Pre-arranged Financing (PAF):** The Centre for Disaster Protection's annual report, The State of Pre-arranged Financing for Disasters 2024, is a unique source of data and analysis on pre-arranged financing. It examines the evolving use of (re)insurers' financial risk transfer solutions alongside other PAF approaches in development toolkits. The report is available at: https://www.disasterprotection.org/publications-centre/the-state-of-pre-arranged-financing-for-disasters-2024

The concept of insurance is not as intuitive to grasp as the other components of the global financial system. Lending and investing injects money into economies, whereas insurance premiums are occasionally viewed as withdrawing money from economies. Of course, a large portion of these premiums will be subsequently "repaid" to households, companies, and governments when financial shocks occur, but this difference between insurance, loans and investments is not intuitive for non-insurance audiences to appreciate.

Finally, one participant astutely observed that a sizeable number of (re)insurers outsource their day-to-day investment activities. Therefore, the "investment management 'voice' is that of investment managers, not asset owners, meaning that (re)insurers' voices are one step further away from discussions with organisations that might benefit from using the industry's capabilities to support their development objectives."

III. PUBLIC SECTOR FRAGMENTATION DOES NOT PROVIDE A COLLECTIVE VOICE

Many public sector organisations with regional and global remits, such as multilateral and bilateral organisations, actively engage with the industry, but the general belief among the participants was that a sizeable portion of these initiatives began as bottom-up entrepreneurial efforts rather than in response to top-down guidance. Despite successes, only a few of these organisations recognise the value of insurance solutions in their strategic ambitions. In practice, this means that these initiatives struggle to secure scaling resources. Several public sector participants argued that having the insurance industry's capabilities explicitly included in development agendas and frameworks would help them obtain greater senior level support and resources.

Notwithstanding the growing number of public sector organisations using insurance solutions to support their development goals, most private sector participants stated that they struggle to understand the landscape of these public sector organisations and their respective mandates, objectives, capabilities, and resources. It is important to emphasise that these industry participants are very supportive of these organisations and know they are doing good work, but there was a widespread feeling that they are under-resourced, not joined-up, not systematically sharing learnings, sometimes duplicating effort, and are missing opportunities to crowd-in¹⁹ greater private sector resources.

Some also stated that it remains challenging to locate suitable entry points into public sector organisations, particularly for small- to medium-sized (re)insurance companies. Multi-stakeholder partnership orchestrators such as the Insurance Development Forum are playing a crucial role here, but there is no comparable public sector counterpart. Many participants, public and private, suggested that there should be an insurance equivalent to the World Bank Group, a "one-stop shop" with several naming this fictional agency the "World Insurance Group."

IV. STRONGER NEED TO LINK INSURANCE DATA TO DEVELOPMENT OBJECTIVES AND OUTCOMES

An A2ii Policy Note captures this factor very well: "data and evidence are the key missing pieces in a vicious cycle: the less insurance data is made available, the smaller the pool of evidence, the less decision-makers are able to grasp the impact of insurance on development goals, thus the more insurance will continue to be underused as a development tool." (Chiew, 2021)

Nobody asserted that the industry is not producing data. One private sector participant highlighted that (re) insurers' solvency and financial condition reports contain detailed company-level data and that the European Insurance and Occupational Pensions Authority, for example, provides market data²⁰; however, the point is that public sector organisations struggle to explicitly link the available data to their development objectives and outcomes.

¹⁹ **Crowd-in:** This economic theory suggests that increased government spending and public sector finance such as concessional loans, grants, guarantees, and seed investments stimulates (greater) private sector investments.

²⁰ **European Insurance and Occupational Pensions Authority:** This is a European Union (EU) financial regulatory institution. It provides aggregated country-level statistical data on (re)insurance companies in the EU and the European Economic Area. More information is available at https://www.eiopa.europa.eu/tools-and-data/ insurance-statistics en

A few public sector participants recognised that data is available but that it might be incomplete for their development purposes. For example, disaggregated data is rarely available to understand how insurance solutions might be supporting underserved communities. Also, in some countries, there might be no product registry, meaning that the available data does not reveal what classes of insurance are being purchased.

Quantified data and evidence are required to compete for attention in development agendas and frameworks. The data governance and translation challenges touched on above, which vary considerably across jurisdictions, significantly impacts the ability of public sector organisations to understand how the industry's capabilities might support their development work.

RECOMMENDATIONS

- 1. Develop a joined-up strategy for how the multilateral system should scale the use of risk transfer solutions and risk management practices in development efforts.
 - This public sector recommendation should consider howmultilateral and bilateral organisations might better collaborate, leverage their collective resources, avoid reinventing the wheel, and scale innovative solutions. For the avoidance of doubt, this recommendation is not about establishing a "World Insurance Group."
- 2. Decide who will represent the industry at development fora and resource this organisation appropriately so that industry has a "seat at the table" when agendas and frameworks are being drafted.

This private sector recommendation is about resourcing a small number of organisations to substantively engage at development fora. It is not about funding industry lobby groups, but organisations with multistakeholder dialogue and partnership mandates and objectives.

B. ARTICULATE THE SOCIETAL VALUE OF INSURANCE

It is not enough to state that insurance is a social good or a force for good. These statements should be substantiated with granular data and evidence. There was widespread agreement among the participants that the societal value of insurance is not clearly appreciated. Indeed, the insurance sector remains in its infancy in large parts of the Global South hindered by a pervasive lack of trust and a limited understanding among households, businesses, and governments.

The industry's risk transfer solutions are financial shock absorbers, enabling societies to recover and rebuild guicker than they can without financial safety nets. These solutions complement the industry's data, modelling, and risk management capabilities that support the understanding, prevention, reduction, preparation for, and management of risks. Yet, the industry is poor at articulating in simple language how its work links to development goals and outcomes. The participants' views were primarily concerned with six topics.

I. "WHAT IS NOT INSURABLE IS NOT **INVESTABLE.**"

There appears to be a limited understanding of how critical insurance is to the real economy and other components of the financial economy. It is well understood that lending and investment activities are required to spur economic growth in the real economy, but insurance is required to derisk and unlock this finance. Without insurance, it is very difficult for households, businesses, and governments to take risks, stunting the potential for growth.

Therefore, without insurance many of the transformations called for in UN multilateral development agreements will not and cannot occur. Should a transformation proceed without insurance, a water and sanitation infrastructure project for example, what happens if a climate-related shock seriously impacts this project? Where will the funds come from to restart and return this transformation to its original plan and objectives? It is not realistic to expect that governments and taxpayers will and can step in to provide financial safety nets for uninsured losses.

This powerful message is largely missing from the narrative about the societal value of insurance although it goes to the heart of any growth, investment, or development story. For example, the energy transition requires massive investments. USD 19 trillion has already been committed to financing the climate transition through to 2030, but deploying these funds on the development, construction, and operation of the necessary infrastructure and technology will require additional insurance coverage of up to USD 10 trillion (Howden and BCG, 2024).

II. SIGNALLING INCREASING RISKS

Another crucial role of insurance is signalling where risks are expanding and where investments into risk awareness, prevention, reduction, preparation, and management efforts are required. Signals are sent when premiums rise to reflect the increased probability of risks occurring. Without greater risk management, some risks will become unaffordable and uninsurable, placing greater burdens on governments' already stretched budgets.

The industry is often challenged about premium increases, but these generally reflect higher risks and claims costs which are mostly outside (re)insurers' control. This is another important message that the industry can do better at communicating and should be accompanied with clear guidance and best practices on how risks can be better understood, prevented, reduced, prepared for, and managed. These might include policy recommendations and actively collaborating with public sector organisations on risk management initiatives.

III. INDUSTRY JARGON

The industry frequently uses technical language such as "protection gap," "penetration rate," and "attachment point" in its communications with non-insurance audiences. These concepts are not (immediately) meaningful to many outside the industry, impacting their ability to see how insurance can support development objectives. This point is not about language itself, but the need to better articulate how the industry's capabilities help manage risks and power resilience. The industry should go beyond simply adapting language; it should demonstrate its societal value with quantified impact data and evidence.

IV. GREEN-, SOCIAL-, AND IMPACT-WASHING

Some communications are little more than marketing efforts and brochureware. While well-intentioned, these approaches justifiably attract accusations of green-, social-, and impact-washing. For example, (re)insurance companies and brokers sometimes produce case studies without impact data and evidence, reducing the credibility of these messages with public sector audiences. These approaches will face regulatory and legal attention in some jurisdictions such as the United Kingdom due to the Financial Conduct Authority's Anti-Greenwashing Rule which requires financial firms to follow the so-called 5C's. According to the Financial Conduct Authority (2024), sustainability references should be

- → Correct and capable of being substantiated
- → Clear and presented in a way that can be understood
- → Complete they should not omit or hide important information and should consider the full life cycle of the product or service
- → Comparisons to other products or services are fair and meaningful

This tactic contrasts with many public sector organisations that anchor their communications in scientifically evidenced research from independent, credible sources. That said, a few public sector participants acknowledged that they sometimes also adopt high-level communication practices as they do not have the resources to conduct impact evaluation exercises or local conditions are too complex or fragile to collect data.

Finally, one participant highlighted that some companies are deliberately under-reporting the links between their solutions and development objectives due to the prevailing anti-sustainability attitudes in some jurisdictions. This approach is commonly referred to as green-hushing and green-blushing.

V. "WHEN ALL YOU HAVE IS A HAMMER, EVERYTHING LOOKS LIKE A NAIL."

Several participants, public and private, spoke about the need for the industry to be "more humble" about which development goals it can help achieve and which problems it cannot make substantial contributions to. Insurance is often an effective risk sharing mechanism as it exploits the benefits of diversification, but it is not always the most effective tool. The industry should understand what alternative non-insurance solutions are available and defer to these when they are more appropriate.

At times, it might be preferable for households and businesses to use savings, loans, and government supports while governments can use a variety of instruments such as contingent funds and contingent loans when disasters strike. In addition, private insurance should complement social protection programmes and healthcare systems, plugging gaps where they exist and enabling households to purchase supplemental insurance. Many industry communications fail to explicitly recognise this complementary role, causing some contributors to suggest that this approach fuels a belief that (re)insurance companies have no role to play in development efforts.

VI. SOCIETAL PERCEPTION OF INSURANCE SOLUTIONS

Many people, particularly in developed nations, understand the importance of insurance in their day-to-day lives. They know that car insurance is required to drive on public roads, they appreciate the value of home insurance in the event of fires and floods, they recognise how life insurance can provide a financial payout when a breadwinner dies, and they understand how health insurance can complement publicly funded healthcare systems.

Yet, despite the recognised benefits, the industry's communication approaches and practices may inadvertently reinforce a perception of insurance as an expense, rather than a valuable risk management investment. Another reason the industry suffers from its poor reputation is the expectation gap: it promises to make financial payouts when shocks occur but there are widely publicised stories of groups expecting payouts that never materialise because of how policies have been constructed. Naturally, there are valid reasons why payouts are not made, but this does not address the gap between expectations and delivery.

Finally, a few participants suggested that the industry should replace the language of "losses" with "payouts" to describe the claims it pays to beneficiaries. Payouts are not a bad thing. The language of "losses" sends a mixed message and obscures the societal value that the insurance industry is already delivering.

RECOMMENDATION

3. Articulate the societal value of insurance using language, data, and evidence that is meaningful to non-insurance audiences.

Private sector companies should consider using the SDGs to articulate their objectives and solutions as they present a common vocabulary, framework, targets, and indicators that will be meaningful to many public and private sector organisations.

C. EDUCATION AND CAPACITY BUILDING ARE CATALYSTS FOR TRANSFORMATION

Almost every participant identified the need for capacity building across the public and private sectors to better understand how insurance solutions can support development goals and outcomes. While public-private dialogue (Design Principle I), multi-stakeholder partnerships (Design Principle J), and other types of learning-by-doing are essential approaches, these should be complemented with deliberate education, training, and peer-to-peer exchange programmes.

Education and training are required to navigate sustainability compliance, disclosure, and risk management demands, yet this is only one part of why these initiatives are critical. Greater efforts are necessary to equip labour forces with the sustainability knowledge and literacy required to ideate and innovate transformational solutions. Foundational knowledge and literacy should be sufficient for generalists, but specialists require deeper training to understand the causal and correlative links between the industry's capabilities and sustainable development objectives. A few participants noted that organisations, public and private, which deliver two-hour sustainability courses for their employees are simply "ticking a box" and that this approach is far below what constitutes foundational learning.

The "war for (sustainability) talent" phrase was used by several participants to emphasise how challenging it is to locate industry executives with sustainability qualifications or sustainability professionals with industry experience. Leading companies are combatting this talent gap by investing heavily into professional development programmes, more so than previous company-wide education and training initiatives.

Many participants also stressed the need for public sector organisations to grasp the mechanics of insurance via technical capacity building. To illustrate this, one participant shared a recurring scenario that he has faced engaging

with public sector executives who believe that insurance policies should pay out annually: "Insurance is a long-term business. In some years there may be no claims that require financial payouts, which can be intuitively unacceptable to people without a grounding in insurance, but in other years payouts can be many times the value of the annual premium, meaning there is a need to create reserves in the no/low loss years for high loss years."

However, public sector organisations and (re)insurers in developing nations frequently struggle to secure resources for upskilling and reskilling. Three reasons were offered. First, there does not appear to be a strong appreciation of the causal link between training and effective insurance markets. Second, initiatives that generate quantifiable impact relatively quickly are prioritised whereas the effect of training takes longer to evaluate. Third, education and professional development are seldomly viewed as "exciting" sustainability projects.

While this design principle is global, participants shared impactful capacity building initiatives that largely operate in the Global South. The Access to Insurance Initiative and the Global Shield Solutions Platform's Knowledge Hub²¹ targets public sector organisations while the UNDP-Milliman Global Actuarial Initiative (GAIN) is delivering tailored capacity-building programs for governments, regulators, insurers, and universities²².

RECOMMENDATION

4. Recognise that systematic education and professional development is a transformation lever.

Both sectors should invest into education, training, professional development, and learn-by-doing initiatives – "go back to school" – to spark new ideas and mobilise innovations and partnerships that can leverage the industry's capabilities and concretely contribute to development objectives.

²¹ **Global Shield Solutions Platform:** This is a component of the G7/V20 Global Shield against Climate Risks initiative. Its Knowledge Hub offers virtual and in-person capacity building opportunities. More information is available at https://global-shield-solutions.org/knowledgehub/

²² **GAIŃ**: This partnership between the UNDP and Milliman, a global actuarial consulting firm, is building actuarial expertise in developing countries. It involves actuarial training for public and private sector audiences and the development of public policies and toolkits. More information is available at https://www.milliman.com/en/milliman-undp-global-actuarial-initiative

D. PREVENTION IS BETTER THAN CURE

It is intuitively known that prevention is better than cure, but something that is universally accepted as true does not necessarily lead to (sufficient) action. Most participants believed that the industry's risk management insights and capabilities are not being leveraged as well as they should be. The industry understands how to prevent, reduce, prepare for, and manage risks when they materialise, and how to strengthen rebuild and recovery efforts that will increase resilience to future shocks.

Traditionally, most insurance solutions have centred on financial payouts when risks occur, but this approach is not always sustainable. For example, the frequency and severity of climate-related events are testing insurability across geographies. The industry can stop underwriting these risks, but this will erode its societal relevance and long-term commercial viability. Moreover, the unavailability of insurance will place greater pressure on governments' already limited resources, yet relying upon publicly funded financial safety nets, where they exist, are not realistic tactics. Participants shared several examples of the industry's risk management efforts today.

Life and Health (re)insurers are increasingly helping customers reduce non-communicable diseases²³. They are employing behavioural science techniques to motivate customers to introduce and sustain healthy behaviours

such as increasing activity levels and eating better. There is an alignment of interests and everyone wins: Customers that engage with these programmes are healthier and rewarded with lower premiums or other incentives; healthy customers claim less so these practices benefit (re)insurers; and healthy people require less support from publicly funded systems.

Property & Casualty (re)insurers have a lengthy record of driving risk management behaviours and safety improvements across industries such as in the automotive sector. Two industry participants shared examples of how their companies offer risk consulting services alongside their risk transfer solutions to large corporate clients. These clients are charged lower premiums when they implement the risk management recommendations identified by risk engineers. Another example that some people will be familiar with from their day-to-day lives is the home insurance premium discount available to homes with burglar and fire alarms.

One significant challenge facing the industry's ambition to nudge customers towards risk management practices is the 12-month renewal cycle on many products. This leads to price-based competition among (re)insurers, leaving few opportunities to reward customers who actively manage the risks they are exposed to. This problem was voiced by many participants. Several solutions were offered to this problem such as the standardisation of multi-year contracts to make them transferable between insurers, but they require industry-wide collaborations to implement,

²² **Non-communicable diseases (NCDs):** Also known as chronic diseases, NCDs tend to be of long duration and are the result of a combination of genetic, physiological, environmental, and behavioural factors. The main types of NCDs are cancers, cardiovascular diseases, chronic respiratory diseases, and diabetes. NCDs kill 41 million people annually, 74% of all deaths globally. NCD risks can be reduced through modifiable behavioural changes related to tobacco use, physical inactivity, an unhealthy diet, and the harmful use of alcohol (WHO, 2023b).

otherwise individual (re)insurers that attempt to pioneer this space will struggle to compete in price-based markets. Some contributors noted that learnings can be found in public-private partnerships that have successfully integrated risk management practices into their multi-year contracts.

There are limits to what the private sector can achieve alone. There is a growing appreciation that some shocks are predictable and can be prepared for in advance, such as flooding events. Participants called for greater public efforts to understand, prevent, reduce, prepare for, and manage risks, including policies, regulations, and investments. The menu of ex-ante interventions is broad, including raising awareness and understanding through education; forbidding construction companies to build in floodplains; and investing in pre-arranged financing solutions so that funds can be quickly deployed when shocks occur, allowing communities to recover and rebuild quicker.

RECOMMENDATIONS

5. Leverage the industry's risk management capabilities to introduce and strengthen risk management practices across the provision of public goods.

Public sector organisations should seek opportunities to plug into and use the industry's existing risk management expertise, data, and tools to accelerate their risk management ambitions.

 Build global multi-stakeholder partnerships to address the 12-month renewal challenge so that customers will be encouraged and rewarded for introducing risk management practices.

Without greater risk management efforts, some risks will become uninsurable, impacting (re)insurers' business models and commercial viability. The industry needs to collaborate more, reduce its dependency on the 12-month renewal cycle, and explore opportunities to encourage and reward (stronger) risk management.

E. SUSTAINABLE DEVELOPMENT IS **BROADER THAN CLIMATE CHANGE** AND REDUCING EMISSIONS

This statement is known to people working in sustainability, yet many participants noted that colleagues and partners frequently conflate sustainability with climate change, specifically the need to reduce greenhouse gas emissions (GHG). Also, they noted that climate mitigation efforts have far exceeded climate adaptation initiatives and that, paradoxically, it is the countries that have contributed least to GHG that are struggling most to adapt to climate change. Nobody doubted that climate change presents an existential risk, but there are equally important risks that are adversely impacting billions of people and our planet today.

I. NATURE AND BIODIVERSITY RISKS

Nature and biodiversity loss and the deteriorating state of the ecosystem services they provide to humanity and the environments in which we live are starting to have a profound impact on society. They are also a source of significant risk for the industry's investment and underwriting activities. Although nature and biodiversity risks linked to air and water pollution, biodiversity loss, deforestation, resource exploitation, and water scarcity are interrelated with climate risk, they are distinct and require specific attention.

A few participants noted that the maturity level of their organisation's strategic engagement with nature and biodiversity is low, particularly in relation to climate risks. They also believed that the 2022 Kunming-Montreal Global Biodiversity Framework will accelerate efforts to recognise nature as an asset and manage the related risks and opportunities in the same way that physical, financial, and human assets are managed. When viewed through these lenses, several participants noted that there are clear innovation opportunities to deploy the industry's risk transfer and risk management capabilities towards nature and biodiversity risks.

II. LIFE, HEALTH, AND ANNUITY **RISKS**

A sizeable portion of the industry centres on mortality, morbidity, longevity, hospitalisation, long-term care, and employment risks. However, many life, health, and annuity companies have not yet fully engaged in sustainability topics across their underwriting activities as much as they have on their investment and operational efforts. The COVID-19 pandemic acutely illustrated the fragilities across publicly funded social protection and healthcare systems. Unfortunately, the World Health Organisation is responding to 42 public health emergencies today, demonstrating that the healthcare gaps exposed by COVID-19 continue to grow (WHO, 2024).

Participants did not doubt that basic social protection and universal health coverage must remain central to public policies. They believed that insurance markets plav complementary roles in achieving societal objectives by plugging gaps in social protection and healthcare systems and enabling individuals and households to purchase supplemental coverage. Several also suggested that (re)insurers can participate more in multi-stakeholder partnerships that drive innovative prevention, diagnostic, and treatment efforts.

One reason advanced by several contributors as to why nature, biodiversity, life, health, and annuity risks have not received greater attention from multi-stakeholder partnership orchestrators is that most public sector finance for risk management and transfer initiatives is currently earmarked for natural hazards and disaster risks. Another explanation is that social protection and healthcare agendas are politically charged in some nations, meaning that it is challenging to secure (additional) resources for these areas. Finally, a few participants considered how multi-stakeholder partnerships might explore cyber and digital technology risks and suggested that these collaborations would not cannibalise existing resources.

RECOMMENDATION

7. Use the 17 SDGs and their 169 targets to inform and guide innovation and partnership efforts across the four dimensions of sustainable development.

It is crucial that both sectors to go beyond the headline 17 goals and explicitly link ambitions and actions to the scientifically anchored 169 targets.

F. SUSTAINABLE DEVELOPMENT IS A TRANSFORMATION AND INNOVATION AGENDA

The UN 2030 Agenda explicitly states that it is "a supremely ambitious and transformational vision...where all life can thrive" (UN, 2015b). The Agenda's 17 SDGs and their 169 targets outline where innovations and investments are required to correct economic, social, environmental, and governance deficits across the globe, yet there is a common misconception that the 17 SDGs is an agenda for the public sector only or developing nations. In recent years, the COVID-19 pandemic, the increasing frequency and severity of climate-related shocks, and other borderless problems such as cybercrimes, geopolitical tensions, and supply chain risks have brought sustainable development topics into focus for developed nations and are debunking this myth.

Most private sector participants emphasised that sustainability challenges are also commercial challenges. Indeed, some participants predicted that these issues would become existential threats to (re)insurance companies that fail to evolve their business models accordingly. However, the waves of regulatory, compliance, and risk management requirements that have hit the industry in recent years is dominating many companies' sustainability agendas with a few contributors describing this as "defensive" work. This is expected to continue with new demands and clarifications to recently introduced legislation and guidance.

Compliance, reporting, and risk management are valuable activities. They drive change when they are decision-useful rather than when they are approached as mechanistic, box-ticking exercises, which, unfortunately, is also a feature of how some companies are approaching sustainability topics. It was noted by most private sector participants that the volume of resources being invested into "defensive" work is limiting the resources that could be invested into

sustainability innovations. This is puzzling when the Agenda is a transformation agenda with one participant noting that (re)insurers are "leaving money on the table." This growth and action-oriented framing is often missing from the industry's sustainability discourse.

These perspectives largely mirror an insightful framework from Professor Andreas Rasche (2025) that distinguishes between four types of collective mindsets that guide how companies approach sustainability topics. An adapted version of this framework for public and private sector audiences is presented below. It rests on two dimensions. First, do organisations approach sustainable development as a short- to medium-term tactical challenge to be addressed and managed or do they recognise it as a long-term strategic agenda that requires the holistic and continuous management of existing and emerging risks? Second, do organisations view sustainable development as a compliance and risk management topic or an opportunity to drive transformation and innovation? Answering these questions generates four types of collective mindsets:

An organisation with a compliance mindset focuses on the legal obligations that arise from existing regulations whereas a risk mindset goes beyond compliance and views sustainable development as a tool to understand and navigate existing and emerging threats. An incremental innovation mindset frames sustainable development as a possible driver of value creation (private sector) or enhanced service delivery (public sector), albeit it centres on gradual change and innovation. A transformational innovation mindset emphasises opportunities for sustainable development-induced product and service innovation, operating model transformation, and revenue growth. These four types of mindsets are not mutually exclusive. An organisation which approaches sustainable development with a transformational innovation mindset also invests resources into compliance and risk management efforts.

	Sustainble Development as Compliance & Risk Management	Sustainable Development as Transformation & Innovation
Short-term Tactical View	Compliance Mindset Tactical focus on compliance with legal obligations and managing existing risks	Incremental Innovation Mindset Gradual approach to evolve existing ways of working and enhance products/services
Long-term Strategic Orientation	Risk Mindset Strategic approach to proactively identify and mitigate existing and emerging threats	Transformational Innovation Mindset Visionary approach with emphasises opportunities for transforming the operating model and products/services

Figure 3. Four organisational mindsets related to sustainable development. Adapted from Rasche (forthcoming).

Many participants queried who is responsible for helping shape markets and encourage and support the industry to invest in potentially transformative innovations. Several believed that policymakers, regulators, and supervisors are uniquely positioned to drive this; however, most understood that regulators and supervisors do not have explicit mandates or objectives to play these roles²⁴. That said, it is useful to illustrate that regulators and supervisors can play these roles with contributors sharing three examples from first-hand experience:

- → The Malaysian regulator is compelling insurers to innovate to increase insurance penetration for low-income populations
- → Pacific Island regulators support meaningful testand-learn practices via sandbox approaches and subsequently introduce regulations to support these nascent markets.
- → The Canadian Council of Insurance Regulators encourages insurers to innovate to close protection gaps and incentivise customers to meaningfully reduce risks.

²⁴ **Regulating sustainable insurance products:** One of this Paper's research participants recently published a paper that persuasively argues that "it is not enough (for regulators) to protect consumers by screening out 'greenwashing' but that regulation should create an enabling environment for sustainable insurance products to provide consumers with more choice" so that consumers can choose sustainable insurance products that tangibly contribute towards sustainable development (Arnold-Dwyer, 2025b). This is available at: https://doi.org/10.2139/ssrn.5158866

Of course, the industry is not sitting on its hands waiting for direction to innovate for sustainable development. Participants shared many compelling examples of how insurance innovations appear to be successfully generating new types of commercial value and meaningful societal impact:



SDG 1 – No Poverty: Income protection insurance for informal workers that cannot access social protection



SDG 2 – Zero Hunger: Crop insurance with related risk management services to help food security



SDG 3 – Good Health and Wellbeing: Health insurance to plug gaps in state healthcare systems



SDG 7 – Affordable and Clean Energy: Insurance for renewable energy technologies



SDG 11 – Sustainable Cities and Communities: Flood insurance for low-income populations living in urban areas



SDG 13 - Climate Action:

Public-private partnerships for extreme events from climate hazards



SDG 14 – Life Below Water:

Marine conservation insurance to quickly restore ecosystems after disasters strike

RECOMMENDATIONS

8. Introduce and strengthen public policies to shape insurance markets for sustainable development.

This public sector recommendation is not about placing new compliance, disclosure, or risk management demands on the insurance industry. Rather, the focus of these policies should be to encourage and support the industry to innovate more, complementing market stability and market fixing policies.

 Frame sustainable development as an innovation and growth opportunity, create and maintain an Opportunities Register as a counterpoint to the Risk Register, and give these registers equal weighting in strategic and tactical governance frameworks.

The industry often speaks about risks and opportunities being two sides of the same coin, but it can do more to embrace sustainable development topics as innovation opportunities, particularly at companies' strategic levels.

10. Champion success stories by developing open science repositories with case studies of solutions that are demonstrably delivering societal impact and commercial value.

A transparent quality assurance process is required to ensure that only innovations with quantified impact data and evidence are showcased. This work should link to existing open science repositories such as those available from the InsuResilience Solutions Fund²⁵ and UNDRR's PreventionWeb²⁶.

²⁵ **InsuResilience Solutions Fund (ISF):** The ISF is an implementing programme of the InsuResilience Global Partnership, a German government-funded climate risk insurance initiative, and implementation vehicle for several multi-stakeholder partnerships. It publishes valuable case studies at https://insuresilience-solutions-fund.org/publications

²⁶ **PreventionWeb:** The United Nations Officer for Disaster Risk Reduction manages this global knowledge sharing platform for disaster risk reduction and resilience efforts at https://www.preventionweb.net/

G. INNOVATE FOR LOCAL CONTEXTS AND UNDERSERVED COMMUNITIES

Tackling complex development challenges should involve local organisations, people that solutions aim to support, and regulators and supervisors to encourage and support targeted market innovations.

I. ON-THE-GROUND INSIGHTS

Collaborating with local stakeholders surfaces the specific contexts, challenges, needs, and cultures that should be woven into the fabric of insurance products, services, and processes such as distribution mechanisms, policyholder communications, and claims procedures. Civil society organisations frequently play this role. A consultative approach of this nature increases the likelihood that an innovation will meet the needs of the population it seeks to serve, will provide beneficiaries with agency when claims are paid, is operationally feasible, and is commercially viable over the medium- to long-term. This engagement approach aligns with the social principle of subsidiarity which holds that social issues should be addressed at the level that is best placed to resolve them, as it enhances the probability of success and contributes to capacity building.

Unfortunately, many organisations headquartered in the Global North, public and private, still seek to impose or strongly suggest which approaches will work best for Global South populations²⁷. Yes, it is valuable to borrow from work in different regions rather than attempt to reinvent the wheel, but this tactic fails to fully appreciate that local populations and underserved communities are best placed to articulate their needs. Also, humility is required to recognise that insurance might not be the appropriate solution. At times, it might be better for people to participate in social protection programmes or access government supports where they exist, build their savings, or borrow money. Several participants asserted that national or regional (re)insurers are better placed to recognise these local contexts than global (re)insurance companies.

One participant shared a compelling example of a Central American multi-stakeholder partnership that sought to understand the local context, challenges, needs, and culture before it co-created and mobilised a novel solution. This solution was accepted by the people it sought to benefit because their needs were integrated into the partnership's design and delivery work. This innovation would likely have been unsuccessful if the project team had focused its engagement efforts at the central government level alone, not the local government and citizenry levels. Private sector executives shared several more examples of teaming up with civil society organisations in developed and developing nations to ideate and co-design solutions that would have been impossible had they attempted to innovate on their own

II. INCLUSIVE INSURANCE

Inclusive insurance is a broad term used to describe insurance products and services that aim to support underserved populations across developed²⁸ and developing nations "rather than just those (solutions) aimed at the poor or a narrow conception of the low-income market" (IAIS, 2015). Underserved groups struggle to obtain insurance due to awareness, availability, accessibility, and affordability challenges. Traditionally, the industry has innovated for middle- and high-income people. Products have not been designed with low-income and marginalised groups such as the young, the elderly, people living with chronic illnesses, indigenous populations, migrants, and women in mind, partly explaining why there are large protection gaps.

One marginalised group that several contributors spoke about was women. Women have long been excluded from traditional financial services yet there are established views and evidence that they are more exposed to shocks and female-led households are better able to recover from these shocks. Therefore, there is a need to explicitly design gender-responsive products, services, and processes.

Echoing the previous design principle, many participants called for regulatory and supervisory support to innovate in this space. This applies to all jurisdictions, but particularly in

²⁷ **Risk Prevention and Resilience to Climate Droughts - Water Reuse and Innovative Financial Instruments:** A recent study carried out by a team of interdisciplinary researchers in Brazil, including one of this Paper's research participants, showed that there is a research gap relating to insurance and climate change for Brazilians cities (Santos et al., 2025). This is another piece of corroborative evidence that Global North-born insurance solutions do not always recognise what is needed in the Global South. This is available at: https://doi.org/10.20944/preprints202502.1169.v1

²⁸ **Inclusive Insurance in developed nations:** Inclusive insurance is frequently viewed as something for developing nations only, yet there are many unserved and underserved populations across developed and developing nations such as younger generations, older people at and beyond retirement, people living with chronic illnesses, indigenous populations, citizens or residents with an immigrant background, low-income groups, informal workers with volatile incomes, and women. The Geneva Association, the industry's leading think tank, examined this topic in a November 2024 report: https://www.genevaassociation.org/publication/social-financial-inclusive-insurance-advanced-economies-alleviating-strains

Global South nations with limited social protection systems and relatively small insurance markets. There has been progress in this area with the number of jurisdictions enacting dedicated inclusive insurance regulations growing from six in 2009 to 54 in 2024 with 13 in development (A2ii, 2024), yet greater efforts are required.

Welcomingly, at the 2024 International Association of Insurance Supervisors (IAIS) annual conference, A2ii was provided with a platform to launch the Cape Town Declaration on Inclusive Insurance²⁹. This global commitment by supervisors and regulators aims to accelerate the creation, growth, and shaping of inclusive insurance markets that effectively balance innovation with robust supervision and consumer protection.

RECOMMENDATIONS

11. Make insurance inclusive and Leave No One Behind by intentionally designing products, services, and processes that are locally appropriate and meet the needs of underserved communities.

The private sector is leaving money on the table and missing opportunities to create and grow markets by not surfacing the needs of underserved communities and innovating products, services, and processes to address these demands.

12. Embrace the Cape Town Declaration on Inclusive Insurance, use this work to integrate inclusive insurance into regulatory and supervisory practices, and help shape markets to deliver for underserved communities.

Echoing the need for industry to evolve its business model, value propositions, and practices, regulators and supervisors should also consider how they can proactively support the industry to innovate and broaden access to insurance products and services.

²⁹ **The Cape Town Declaration on Inclusive Insurance:** More information is available at https://a2ii.org/en/declaration.

H. DATA AND DIGITAL **TECHNOLOGIES FUEL SCALABLE INNOVATIONS**

Technologies continue to permeate our lives in ways that were simply unimaginable 5, 10, 15 years ago. Many participants highlighted the need to scale up the use of data and digital solutions in development efforts. In fact, some contributors ventured that scaling is impossible without employing these tools, as technologies reduce the costs of production, enabling products and services to be designed and distributed to more households, businesses, and governments.

The impressive adoption of digital banking and mobile money solutions in developing nations has brought large numbers of people to formal financial services for the first time with many of these solutions leapfrogging those available in developed markets. However, in the rush to champion digital technologies, it is also vital to recognise the digital divide, the gap between those who have access to technology, the internet, and digital literacy skills, and those who do not. 2.6 billion people do not have access to the internet today (ITU, 2023) and digital progress will fuel greater inequities and inequalities until everyone has access to the internet and digital devices and is equipped with digital literacy skills.

The insurance industry has arguably not embraced the tech dynamism that has powered substantive change across other industries. (Re)insurers are missing opportunities to create new markets, scale existing markets to low- and middle-income populations, evolve their value propositions towards predict-and-prevent services, and automate their processes. That said, examples were shared of how (re) insurers are better employing technologies to make insurance more available, accessible, and affordable:

- → Microinsurance products³⁰, particularly for life, health, and agricultural risks, are providing financial safety nets to low-income populations in countries with limited social protection systems. Microinsurance is sometimes used interchangeably with Inclusive Insurance, but definitions vary from one country to another.
- → Satellite imaging data are allowing natural hazards and disaster risks to be modelled for the first time, and these data are also informing risk awareness, prevention, reduction, preparation, and management interventions.
- → Parametric solutions³¹ are increasingly used for natural hazards and disaster risks. They bring clarity to potential payouts, making them easier to communicate to organisations that might have never used insurance as part of their disaster risk financing toolkits. Parametric solutions also crowd-in capital market investors via insurancelinked securities³², bringing greater capacity to the industry and allowing it to underwrite more risks.

While parametric insurance presents new risk transfer opportunities, the lack of data to fuel these solutions is a barrier. The industry must look at how it can play a proactive role in helping public sector organisations capture and create data in ways that will be meaningful to model, price, and underwrite risks as well as inform risk awareness, prevention, reduction, preparation, and management efforts. Innovation will not happen to the extent that is required if the industry passively waits for the public sector to somehow capture and create actionable datasets. Part of this work should involve data and technology companies.

³⁰ Microinsurance: This type of insurance is designed for low-income individuals and households. It is characterised by simple products, low premiums, and innovative distribution channels such as mobile phone operators, community-based agents, and nonprofits and NGOs. More information is available in The Landscape of Microinsurance 2024 report from the Microinsurance Network: https://microinsurancenetwork.org/resources/the-landscape-of-microinsurance-2024. ³¹ Parametric insurance: This type of insurance pays out a pre-agreed amount when a pre-defined event occurs using a pre-defined parameter. Parametric solutions deliver speedy payouts before or soon after shocks, enabling populations to recover and rebuild quicker, such as rainfall levels or earthquake magnitude. This contrasts with other types of insurance and financial supports that might take weeks or months to pay out, if it all, amplifying the impact of shocks on lives and livelihoods. More information is available in Swiss Re's 2024 Comprehensive Guide to Parametric Insurance: https://corporatesolutions.swissre.com/dam/jcr:0cd24f12-ebfb-425a-ab42-0187c241bf4a/2023-01-corso-guide-of-parametric-insurance.pdf and the Generali - UNDP 2024 report, Parametric Insurance to Build Financial Resilience: https://www.undp.org/sites/g/files/2skgke326/files/2024-10/undp_gcc_parametric_insurance_to_build_financial_resilience.pdf
³² Insurance-linked securities (ILS) are financial instruments that allow capital market investors to participate in insurance markets without directly underwriting risks such as hurricanes and earthquakes. They provide a mechanism for transferring risks from the insurance industry to investors, allowing more risks to be

underwritten. Catastrophe Bonds are a common form of ILS and increasingly used by the World Bank to support nations manage disaster risks such as this Mexican case study. https://thedocs.worldbank.org/en/doc/8f7222d60ec54d0b6571131b754319c1-0340012025/original/Case-Study-Mexico-2024-Cat-Bond.pdf

One example of how public and private sector organisations are collaborating on the development of risk data and modelling solutions is the Global Risk Modelling Alliance (GRMA)³³. This multi-stakeholder partnership was established in response to a V20³⁴ proposal. It aims to empower developing nations' climate and disaster risk management ambitions and actions with open data, open-source technology, and capacity building initiatives. The GRMA's work today is part funded by grants from the German government's InsuResilience Solutions Funds, an example of catalytic finance that is explored later in this chapter.

An important caveat to the above points was added by several participants. While digital technologies are helping create and grow insurance markets, the accompanying legal and regulatory frameworks have not kept pace with the diffusion of these technologies. This challenge is magnified by the uncertainty over who is responsible for these laws and regulations, particularly in developing nations. Is it the insurance regulator, the finance ministry, the telecommunications ministry, the health ministry, the agricultural ministry, or a combination of these that is responsible? This question underlines the need for multistakeholder dialogue to surface and overcome these barriers – this is explored in the next section.

RECOMMENDATION

13. Using the Global Digital Compact³⁵ asguardrails, invest in data and digital technologies that will support the achievement of development goals for every section of society.

Data and digital technologies, including Artificial Intelligence, can help scale impactful insurance solutions to many more people across developed and developing nations. However, it is crucial to address the digital divide and ensure that well-intentioned data and digital strategies do not exacerbate the divide between those who are digitally included and those who are not.

³³ **Global Risk Modelling Alliance:** More information is available at https://grma.global/.

²⁴ V20: The Vulnerable Twenty (V20) is a group of economies that are systemically vulnerable to climate change. It works through dialogue and action to tackle global climate change. 70 nations representing 1.7 billion people are now part of the V20. More information is available at https://www.v-20.org/.
²⁵ Global Digital Compact: This UN framework covers the global governance of digital technology and artificial intelligence. It aims to close all digital divides

³⁵ **Global Digital Compact:** This UN framework covers the global governance of digital technology and artificial intelligence. It aims to close all digital divides and deliver an inclusive digital economy; build an inclusive, open, safe, and secure digital space; and strengthen international data governance and govern AI for humanity. It was adopted by the UN 193 Member States in September 2024.

I. PUBLIC-PRIVATE DIALOGUE IS CRUCIAL TO SHAPE EFFECTIVE MARKETS

This design principle spotlights the need to continue and strengthen dialogue within and among countries, and within and across the public and private sectors. Most views centred on the need for greater engagement between policymakers, regulators, supervisors, and the industry. Dialogue should not be confused with lobbying efforts which push narrow agendas without carefully considering potential negative spillover effects. Public-private dialogue might sound vague to some audiences, so the following examples should illuminate what structured engagements can reveal:

- → Regulatory restrictions on the ability of (re)insurers to set premium rates in line with underlying risks can cause (re)insurers to exit markets as we have seen across several US states in the past two years. This reduces the availability of insurance, so that when disasters strike people must use their savings, borrow money, seek financial assistance from government, or turn to negative coping mechanisms.
- → The regulatory requirement for handwritten signatures in policy documentation in some countries causes process inefficiencies and limits the industry's ability to embrace the opportunities presented by digital technologies. The effect of a wet signature requirement leads to higher costs and premiums, impacting affordability.
- → Protectionist policies and practices add costs, causing higher premiums and affordability issues. Protectionism is also preventing many global (re) insurers from entering specific markets, impacting availability³⁶. This means that some risks, particularly catastrophe risks, cannot be underwritten by local insurers as they do not have the balance sheet strength to withstand large loss events.
- → Dialogue can help surface ownership issues and other operational barriers that require interventions. In some markets, supervisory tasks can be led by the insurance regulator or one or a combination of government ministries such as agriculture, finance, health, and telecommunications. These challenges have been repeatedly encountered in developing countries.

→ 45% of nations, mostly in the Global South, do not have laws for cooperative and mutual insurance (ICMIF, 2016). This limits the availability of insurance in these markets, again leading to higher premiums and affordability issues.

Policymakers, regulators, and supervisors will only understand scenarios like these when they meaningfully engage with the industry. They must approach dialogue fora as opportunities to strengthen the effectiveness of markets and consumer protection. Examples were shared of policymakers and regulators declining invitations to attend industry conferences for fear of appearing to support profit-seeking companies.

Equally, the industry can do more. It is understandable that (re)insurers have concerns about sharing knowledge, best practices, lessons learned, and success stories in dialogue fora as these might touch on actual or perceived intellectual property and other competitive advantages. However, engagement that goes beyond lobbying is crucial to help craft new regulations and guidelines and address the unintended consequences of well-intentioned policies, regulations, and guidance.

One valuable multi-stakeholder dialogue forum with balanced representation from the public and private sectors referenced by several participants is the International Conference on Inclusive Insurance³⁷.

RECOMMENDATION

14. Substantively engage in multi-stakeholder dialogue fora, recognising that both sides have a desire to strengthen markets and make insurance more available, accessible, and affordable.

This is not about the public sector directing what companies should do or private sector lobbying. Substantive and substantial multi-stakeholder dialogue can break down silos, build a shared understanding of problems and solutions, and power a whole-of-society approach to achieving sustainable development.

³⁶ **Protectionism:** Economic nationalism, where nations prioritise national interests over the benefits of globalisation, and protectionism creates challenges for the global insurance market, impacting the availability and affordability of insurance. The Geneva Association examined this topic in a January 2025 report: https://www.genevaassociation.org/publication/macro-and-geoeconomic-shifts/insurance-fragmented-world-economy.

³⁷ **International Conference on Inclusive Insurance:** This annual event provides a platform for public and private sector executives to discuss and identify ways of accelerating inclusive insurance growth in developing nations. The 20th edition was held in Nepal in 2024 and was attended by over 500 experts from more than 40 countries. Public sector participants included government officials, regulators, and supervisors, plus staff from multiple United Nations agencies. More information is available at https://www.munichre-foundation.org/en/Inclusive insurance/International Conference on Inclusive Insurance/ICII2024.html

J. THE MULTIPLICATIVE POWER OF MULTI-STAKEHOLDER PARTNERSHIPS

The scope and size of global challenges requires a whole-of-society approach to ideate, innovate, and scale impactful solutions. SDG 17 calls for greater collaboration within and among countries, and within and across the public and private spheres. Many participants emphasised the need for multi-stakeholder partnerships to drive transformative action and quantifiable impact, but many also questioned whether some public-private collaborations are generating meaningful results. Some of this uncertainty relates to the definition of a multi-stakeholder partnership.

Partnerships exist on a continuum from transactional, client-vendor-type relationships to transformational, co-creation collaborations. The former typically involves one organisation paying another for products and services whereas the latter requires organisations to pool their complementary resources such as expertise, finance, networks, and technologies to create new types of value. Therefore, transformational collaborations are much more likely to generate change at the scope, scale, and speed required, and these are the multi-stakeholder partnerships that participants called for.

Participants shared numerous strategic and tactical challenges that they have faced when sourcing, building, and governing multi-stakeholder alliances. Many also shared their frustrations that these problems repeatedly occur. It is important to emphasise that both public and private sector organisations have a shared responsibility to overcome these barriers. It is not public *or* private, but public *and* private. This section presents the five key challenges that emerged during the interviews.

I. LOCATING PARTNERS

Many participants noted how difficult it is to source organisations to ideate, co-create, and mobilise opportunities with one summarising these efforts as "attempting to find a needle in a haystack." That said, the creation and expansion of the multi-stakeholder partnership orchestrators and dialogue fora referenced elsewhere in this paper over the past 10 years are creating platforms to help locate partners.

Nobody suggested that new orchestrators or fora are needed. Rather, existing mechanisms should be scaled such as the Tripartite Agreement between UNDP, the German Federal Ministry for Economic Cooperation and Development (BMZ), and the Insurance Development Forum. To date, this multi-stakeholder partnership has involved 20 (re)insurance companies and brokers with industry committing up to USD 5 billion in risk capacity. Projects are active in 20 countries with a projection of 64 million beneficiaries. The partnership supports countries in diverse ways, including technical assistance in co-designing risk financing solutions with governments, public sector capacity building, integrating insurance into public policies, and premium subsidies³⁸.

While the Tripartite Agreement is a powerful example of a multi-stakeholder partnership that regularly generates collaboration opportunities on the global stage, there have also been regional and national success stories. For example, the Microinsurance Technical Advisory Group (TAG) in Zambia has convened public and private stakeholders outside the formal regulator-industry dialogue process over the past 10 years. Several impactful partnerships can be partly attributed to TAG including the establishment of a national agricultural insurance scheme covering up to one million farmers. In 2024, TAG expanded its reach by hosting its inaugural inclusive insurance conference for eastern and southern African stakeholders³⁹.

³⁸ **Tripartite Agreement:** More information is available at irff.undp.org/projects/tripartite-agreement.

³⁹ **Microinsurance Technical Advisory Group (TAG):** The definition of a multi-stakeholder partnership orchestrator is broad. There are more similarities between TAG and the multi-stakeholder dialogue fora approach examined in the previous section than the Tripartite Agreement model; however, what's distinctive about TAG is how it has repeatedly brought public and private sector organisations together and supported their transformational innovation partnership ambitions. More information is available at https://www.munichre-foundation.org/en/Inclusive_insurance/Learning_Sessions/2024_ESARCII.html

II. ALIGNING OBJECTIVES

Public and private sector organisations have distinctive philosophies, goals, ways of working, and metrics. While this is obvious to state, it does not necessarily mean that each side always appreciates these differences. Public actors must recognise that industry has financial objectives. This should not suggest that every company pursues profit above all else, but they must deliver financial returns that are acceptable to their shareholders. Equally, (re)insurers should recognise that the public sector has goals that are not financial in nature – they exist to deliver public goods. Without surfacing and aligning these differences, partnerships will struggle to generate diverse types of value that are meaningful to each organisation.

Moreover, it is important for the industry to recognise that the public sector is not one homogeneous group. It consists of national governments, regional governments, cities, policymakers, regulators, supervisors, multilateral organisations, public development banks, humanitarian agencies, civil society groups, philanthropic organisations, and academic institutions. These groups view and engage with the private sector in different ways. Some recognise the value that companies bring while others hold a more cautious view.

III. BALANCING SHORT- AND LONG-TERM GOALS

Potentially transformative innovations can take years to deliver meaningful outcomes whereas transactional collaborations and incremental innovations can generate quicker results. Some public sector participants queried whether companies appreciate this distinction, sharing examples of (re)insurers seeking short-term results from partnership ideas that would take several years to design, pilot, and scale due to their novelty and complexity.

Similarly, several contributors, public and private, aired their frustrations about engaging with some politicians and politically elected officials that prioritise projects offering the potential for guick wins. Related to this point, the political cycle, turnover of government personnel, and policy changes make it challenging to build the long-term relationships required for transformational innovations. A few participants stated that their organisations have ended substantive engagements with politicians and politically elected officials due to the challenges inherent in the political economy.

Therefore, it was widely felt that (re)insurers should engage with the permanent members of a government's (sub-) national civil service that are likely to endure political changes and are closer to the government systems that drive action. However, many private sector participants noted that this is easier said than done, as it can be quite challenging to navigate the organisational complexity of government entities.

IV. RESOURCING PILOTS THAT MIGHT NOT DELIVER RESULTS

In general, public sector organisations have a limited appetite for high-risk initiatives that might not deliver the expected results whereas the private sector is more comfortable that some projects will fail. Potentially transformative innovations are inherently risky, so seeking a (close to) one hundred percent success rate from every initiative will lead organisations to focus their resources on incremental innovations. These simply will not deliver the transformative changes demanded by the SDGs.

Several participants spoke about the need to "think big, start small, and scale fast." Mobilising large initiatives, particularly for innovations with limited to no precedent, is very challenging whereas starting small with an ambitious vision in mind can generate momentum, deliver quick wins, present test-and-learn opportunities, and attract interest from wider stakeholder groups that might subsequently fuel scaling efforts.

V. BUILDING TRUST

Trust and commitment are key to building and sustaining long-term multi-stakeholder partnerships as transformational innovations will inevitably face unexpected challenges that must be navigated as a joined-up team. To build trust, partners should be open and transparent with each other. Moreover, subject to laws and regulations regarding anti-competitive practices, they should share ideas and information freely and be willing to listen to each other's concerns. This factor cannot be underestimated, as the likelihood of failure and reputational damage is much higher when there is limited trust between the partnering organisations.

RECOMMENDATIONS

15. Appoint permanent (sub-)national Chief Risk/ Resilience Officers⁴⁰ who will be responsible for understanding and quantifying risks, and proactively managing these risks, including via the use of insurance and multi-stakeholder partnerships.

Risk officers are a permanent and strategic feature across the private sector. This recommendation calls for the public sector, particularly governments, to emulate this approach and strengthen its ability to understand, prevent, reduce, prepare for, and manage risks.

16. Develop a practitioner playbook that will support public and private sector organisations to source, assess, mobilise, scale, and govern insurance-related multistakeholder partnerships.

Both sectors can benefit from using a standardised, open-source playbook to accelerate their collection ambitions.

⁴⁰ **Chief Risk/Resilience Officers:** The concept of Chief Risk/Resilience Officers in public sector organisations is not new. For example, the Resilient Cities Network in an industry-agnostic network that works with over 100 cities worldwide on climate resilient, circular, and equitable solutions. It is currently collaborating with Howden, a global (re)insurance broker, on the Global Risk and Resilience Fellowship. To date, Howden staff have been seconded to work with the Chief Resilience Officers in 10 global cities to examine how insurance solutions might support these cities' resilience strategies. More information is available at https://resilientcitiesnetwork.org/2024-grrf-report/

K. PUBLIC SECTOR FINANCE IS REQUIRED TO FUEL TRANSFORMATIONAL MARKET INNOVATIONS

Finance from government, multilateral, bilateral, public development bank, civil society, and philanthropic sources is crucial to catalyse potentially transformational innovations. Within an insurance context, public sector finance is often understood as premium subsidies, but several complementary and supplementary mechanisms were shared by the participants.

I. PREMIUM SUBSIDIES AND "PILOTS WITHOUT PLANES"

Test-and-learn pilots are required to evaluate whether innovations meet the needs of the populations they seek to serve, are operationally feasible, and are commercially viable over the medium- to long-term. These pilots can be part- or fully financed by public sector organisations. Most of this support is used to subsidise premiums to address the demand-side affordability challenge for households, businesses, and governments. These subsidies crowd-in the private sector resources required to scale the most promising pilots into financially sustainable markets.

There have been successes, but there have equally been failures with participants evocatively describing these disappointments as "pilots without planes" and "graveyards of pilots." Repeated concerns were raised about the lack of strategic planning that goes into pilots, and that the same mistakes are made time and again. Several participants stressed that this type of public sector finance should be largely viewed as a short-term boost to mobilise pilots, not a long-term financing mechanism, and that pilots should be designed with concrete and agreed roadmaps for markets to exist without premium subsidies.

II. THERE IS A PLACE FOR LONG-TERM PREMIUM SUBSIDIES

The research also surfaced an alternative view to the above position: there are long-terms roles for premium subsidies that target the poorest and most vulnerable sections of society⁴¹. Governments across developed and developing nations use insurance markets to achieve societal objectives with some regions operating highly subsidised health and agricultural insurance markets. Indeed, the estimated cost to governments for agricultural insurance subsidies is over USD 20 billion p.a. with most of this concentrated in highincome countries (Hazell and Varangis, 2020). This approach has proven to be politically sustainable irrespective of who occupies power.

Related to this topic is the use of public funds for pre-arranged humanitarian disaster risk financing. Unfortunately, many parts of the world exist in a state of (near-) permanent crisis. To manage and prepare for crises, humanitarian agencies have started leveraging the industry's capabilities and integrating insurance into their development toolkits. For example, the World Food Programme (WFP) purchases micro, meso, and macro climate risk insurance to secure financial protection. In 2023, it paid premiums of over USD 15 million to secure coverage of approximately USD 125 million for 5.1 million people and received payouts that exceeded paid premiums (WFP, 2024)⁴². These insurance solutions complemented the use of anticipatory action mechanisms such as cash transfers to provide financial protection to another 4.1 million people.

It is important to highlight that the WFP sometimes requires beneficiaries to partially pay premiums for micro and meso schemes only, as this approach might help grow insurance markets to a stage where subsidies are not required. Moreover, support from some of WFP's donors is conditional on this tactic as donors believe that beneficiaries that contribute to the premiums learn about the value of insurance and what risk management practices can be implemented to limit the need for insurance.

⁴¹ **Premium Subsidies:** Participants shared contrasting views on the desired role of premium subsidies. In a September 2024 paper, the Centre for Disaster Protection (Bertram and Scott, 2024) explored the complexities of premium support, identified core problems with current approaches to the design of premium subsidies, and proposed changes to the way that premium support is designed, allocated, and provided: https://www.disasterprotection.org/publications-centre/rethinking-premium-support.

⁴² **World Food Programme:** From the WFP's annual performance report for 2023: "Microinsurance interventions covered 2.58 million individuals, triggering USD 2.1 million in payouts that benefited 205,000 subsistence farmers and pastoralists. Macro-insurance products extended coverage to 2.5 million people and payouts totalled USD 13.1 million, providing recovery support to 617,000 people affected by drought and tropical cyclones in five countries."

Participants shared other recent examples of insurance markets being used for humanitarian purposes. One of these is from the United Nations International Children's Emergency Fund (UNICEF), namely the Today and Tomorrow Initiative (UNICEF, 2024). The Today component involves investments into disaster risk reduction and climate change adaptation and resilience building while the Tomorrow element centres on the purchase of parametric insurance to secure rapid funds when disasters strike. It is notable that UNICEF has paired risk reduction and adaptation efforts with insurance financial risk transfer solutions, presenting a blueprint for how other humanitarian agencies might integrate insurance into their wider risk management efforts

III. OTHER TYPES OF PUBLIC SECTOR CATALYTIC FINANCE

While there are a growing number of public sector organisations prepared to provide subsidies, fewer organisations are willing to commit resources to the complementary demand- and supply-side factors required for functioning markets. From a demand-side perspective, there is a need to educate people about the risks they are exposed to and the value of insurance as a resilience tool. Finance is also required for risk awareness, prevention, reduction, preparation, and management practices to minimise the need for financial payouts. On the supply-side, capacity building investments into public institutions are required, such as developing and strengthening laws and regulations, recruiting more people, and training policymakers, regulators, and supervisors.

However, supply-side interventions should not exclusively focus on public sector organisations. Public sector finance is also required to support insurers that operate in regions that are simply too small and underdeveloped to attract public development banks and large (re)insurance groups

such as Small Island Developing States. The United Nations Capital Development Fund (UNCDF) has deployed a variety of approaches in the Pacific Islands such as grants to insurers to help build their data, modelling, pricing, product design, underwriting, and technology capabilities. UNCDF will build on this work in 2025 by piloting concessional loans for premium financing in Fiji, Papua New Guinea, and Samoa. These loans will be used to pay insurance premiums upfront before beneficiaries repay these loans in small amounts when they receive income from their farming or fishing activities, for example.

In general, small insurers do not have the balance sheet strength to absorb catastrophic losses so UNCDF is also planning to pilot a guarantee facility that allow these insurers to underwrite new types of risks, particularly for climate related events. UNCDF recently announced a partnership with Lloyd's and Aon to scale its pioneering innovations, a powerful example of how public sector catalytic finance can crowd-in private sector resources to scale successful pilots (UNCDF, 2024). This partnership will leverage earlier UNCDF capacity-building collaborations with A2ii (UNCDF, 2023) and Lloyd's (Lloyd's, 2024) to provide parametric insurance training to regional supervisors and (re)insurers in Pacific Island countries.

Other public sector catalytic finance examples were shared during this research. First, African Risk Capacity Limited, a mutual insurance company and sovereign risk pool, received seed capital of approximately USD 100 million from the German and UK governments structured as interest-free loans refundable over 20 years (ARC, 2024). Second, the Natural Disaster Fund, a public-private partnership administered by CelsiusPro, was established with commitments of approximately EUR 50 million from the German and UK governments and matching risk capacity from Hannover Re. The NDF also receives grants for product development and deployment activities from the German government (CelsiusPro, 2024).

IV. THE RECIPROCAL ROLE OF CONCESSIONAL PRIVATE SECTOR **FINANCE**

Notably, several private sector participants stressed that the industry should be more open to accepting concessional returns and/or higher underwriting losses to incentivise public sector catalytic finance and that these positions should be explicit from the outset of engaging with the public sector. They stressed that this approach should not be viewed as philanthropic. Rather, they argued that adopting a shared risk and reward mindset, "skin in the game," is necessary to create and grow new markets.

Connected to this, participants noted that some public sector executives, albeit none that were interviewed for this work, believe that companies should not make commercial returns on any programme that involves public sector funds. Examples were shared of companies that invested significant resources into public-private partnership exploratory efforts before realising that their public sector counterparts held this view. This stance fails to recognise that (re)insurers face opportunity costs on how they deploy their finite resources and does not exhibit the transformational attributes called for by SDG 17 partnerships.

RECOMMENDATIONS

17. Direct catalytic finance towards all demandand supply-side factors that are necessary for functioning markets in addition to premium subsidies.

Both sectors must invest in all the demand- and supplyside factors that are required to create, grow, and strengthen markets in ways that will deliver financial stability, consumer protection, and financial inclusion.

18. Add risk management conditionalities to multi-stakeholder partnerships and initiatives that involve public sector catalytic finance and/or concessional private sector finance.

This recommendation for public and private sector audiences emphasises the need for both sectors to make greater investments into risk awareness. prevention, reduction, preparation, and management efforts. Stronger risk management measures are crucial to ensure that risks do become insurable.

CONCLUSION

Economic, social, environmental, and governance crises are impeding progress to achieve sustainable development. Only 16 percent of the Sustainable Development Goal targets – the overarching development framework – are on track to be met globally by 2030, with the remaining 84 percent showing limited progress or a reversal of progress. We are collectively failing despite our scientific understanding of the challenges facing us and the goals and targets we must pursue to solve these problems. One critical, persistent constraint is finance with the SDG financing gap standing at USD 4.2 trillion annually. Mobilising finance from both public and private sources is crucial to closing this gap and accelerating action.

The insurance industry is a cornerstone of the global financial system and plays a key role in helping households, businesses, and governments navigate risks, build resilience, and enable transformations from unsustainable to sustainable practices, yet private insurance solutions are rarely recognised in UN multilateral development agreements. This Position Paper aims to gain a deeper understanding of why the industry's distinctive risk management and risk transfer capabilities receive limited attention in development agendas and frameworks; explore how to mainstream discussions around risk, resilience, and insurance; and present ways in which the public and private sectors can scale the use of insurance solutions in development efforts.

We are all well-acquainted with the widespread and intricate global challenges we face. Discussions often dwell on problems, overshadowing impactful solutions, pioneers, progress, and successes. This position paper, while demonstrating the insurance industry's significant contributions to sustainable development, outlines the full potential of the insurance industry to drive sustainable development partnerships, innovation, growth opportunities and transformations, when fully utilized.

Václav Havel, concluded his profound essay, The Power of the Powerless with an important question "For the real question is whether the 'brighter future' is really always so distant. What if, on the contrary, it has been here for a long time already, and only our blindness and weakness have prevented us from seeing it around us and within us, and kept us from developing it?"

This encapsulates our perspective on the insurance industry's transformative potential for sustainable development across economic, social, environmental, and governance dimensions. We have everything we need around us. We just need to recognise and nurture the power of partnerships, open data and participatory innovation to deliver global public goods, leaving no one behind

REFERENCES

A2ii (2024). Annual Report 2023. [online] Access to Insurance Initiative. Eschborn: Access to Insurance Initiative. Available at: https://a2ii.org/en/news/a2ii-publishes-2023-annual-report [Accessed 30 Nov. 2024].

AFI (2022). National Financial Inclusion Strategies: Current State of Practice. [online] Alliance for Financial Inclusion. Available at: https://www.afi-global.org/wp-content/uploads/2022/05/NFIS-Current-State-of-Practice-isbn.pdf [Accessed 6 Jan. 2025].

Allianz (2024). Global Insurance Report 2024. [online] Allianz. Available at: https://www.allianz.com/content/dam/one-marketing/azcom/Allianz_com/economic-research/publications/specials/en/2024/may/2024-05-23-Global-Insurance-Report.pdf [Accessed 6 Jan. 2025].

Allianz (2025). Insuring the future: The virtuous cycle of insurance and sustainability. [online] Allianz. Available at: https://www.allianz.com/content/dam/onemarketing/azcom/Allianz_com/economic-research/publications/specials/en/2025/january/2025-01-21-Insurance_SDG-AZ.pdf [Accessed 23 Jan. 2025].

Aon (2025). Climate and Catastrophe Insight. [online] Aon. Available at: https://assets.aon.com/-/media/files/aon/reports/2025/2025-climate-catastrophe-insight.pdf [Accessed 22 Jan. 2025].

ARC (2024). Integrated Annual Report 2023. [online] African Risk Capacity Limited. Available at: https://www.arc.int/sites/default/files/2024-09/ARC%20Ltd%20Annual%20Report%202023.pdf [Accessed 30 Nov. 2024].

Arnold-Dwyer, F. (2025a). Insurance public private partnerships for natural catastrophe risk. In: Festschrift - Prof Manfred Wandt. Verlag Versicherungswirtschaft (forthcoming).

Arnold-Dwyer, F. (2025b). Regulating Sustainable Insurance Products for Consumers. Journal of Business Law (forthcoming). [online] doi:https://doi.org/10.2139/ssrn.5158866.

Banerjee, A.V. and Duflo, E. (2011). Poor Economics: The Surprising Truth about Life on Less Than \$1 a Day. London: Penguin Books.

Bell, P.S.J., Berry, T., Deanfield, P.J., Hassan, I., Joshi, R., Schindler, Y. and Scott, P.A. (2024). Prosperity Through Health: The Macroeconomic Case for Investing in Preventative Health Care in the UK. [online] Tony Blair Institute. Available at: https://institute.global/insights/economic-prosperity/the-macroeconomic-case-for-investing-in-preventative-health-care-UK [Accessed 7 Jan. 2025].

Bertram, V. and Scott, Z. (2024). Rethinking Premium Support: Enhancing the Impact and Sustainability of Climate Risk Insurance. [online] London: Centre for Disaster Protection. Available at: https://static1.squarespace.com/static/61542ee-0a87a394f7bc17b3a/t/66ec25d4ebb6b7425928f82f/1726752217857/RETHINKING+PREMIUM+SUPPORT.pdf [Accessed 5 Jan. 2025].

Bridgetown Initiative (2022). THE BRIDGETOWN INITIATIVE HISTORY. [online] Bridgetown Initiative. Available at: https://www.bridgetown-initiative.org/history/ [Accessed 10 Jan. 2025].

Bridgetown Initiative (2024). Bridgetown Initiative on the Reform of the International Development and Climate Finance Architecture: Version 3.0. [online] Bridgetown Initiative. Available at: https://www.bridgetown-initiative.org/ [Accessed 10 Jan. 2025].

Caesar, L., Sakschewski, B., Andersen, L.S., Beringer, T., Braun, J., Dennis, D., Gerten, D., Heilemann, A., Kaiser, J., Kitzmann, N.H., Loriani, S. and Rockström, J. (2024). Planetary Health Check Report 2024. [online] Planetary Health Check. Potsdam, Germany: Potsdam Institute for Climate Impact Research. Available at: https://www.planetaryhealthcheck.org/storyblok-cdn/f/301438/x/a4efc3f6d5/planetaryhealthcheck2024 report.pdf [Accessed 30 Nov. 2024].

Cambridge Centre for Risk Studies (2024). Optimising Disaster Resilience. [online] Cambridge Centre for Risk Studies at the University of Cambridge Judge Business School. Available at: https://www.jbs.cam.ac.uk/wp-content/up-loads/2024/09/CCRS-AXA-Optimising-Disaster-Resilience-2024.pdf [Accessed 10 Jan. 2025].

CelsiusPro (2024). Natural Disaster Fund Impact Report 2023. [online] CelsiusPro. Available at: https://www.celsiuspro. com/news-1/protection-impact-scale-ndf-impact-report [Accessed 30 Nov. 2024].

Chiew, H.L. (2021). Insurance and the Sustainable Development Goals. [online] Access to Insurance Initiative. Eschborn: Access to Insurance Initiative. Available at: https://a2ii.org/en/sustainable-development-goals [Accessed 30 Nov. 2024].

Climate Resilience Alliance (2024). Our Impact. [online] Zurich Climate Resilience Alliance. Available at: https://zcralliance.org/our-impact/ [Accessed 15 Mar. 2025].

EC (2019). The European Green Deal. [online] Available at: https://commission.europa.eu/document/daef3e5c-a456-4fbb-a067-8f1cbe8d9c78 en [Accessed 30 Nov. 2024].

EC (2023). Guidelines on the applicability of Article 101 of the Treaty on the Functioning of the European Union to horizontal co-operation agreements. [online] Available at: https://competition-policy.ec.europa.eu/system/ files/2023-07/2023_revised_horizontal_quidelines_en.pdf [Accessed 2 Jan. 2025].

ECB and EIOPA (2023). Policy options to reduce the climate insurance protection gap. [online] European Central Bank. Available at: https://www.ecb.europa.eu/pub/pdf/other/ecb.policyoptions_EIOPA~c0adae58b7.en.pdf [Accessed 16 Jan. 2025].

ECB and EIOPA (2024). Towards a European system for natural catastrophe risk management . [online] European Central Bank. Available at: https://www.ecb.europa.eu/pub/pdf/other/ecb.climateinsuranceprotectiongap_ EIOPA202412~6403e0de2b.en.pdf [Accessed 16 Jan. 2025].

Eling, M. (2024). Is the insurance industry sustainable? Journal of Risk Finance, 25(4), pp.684-703. doi:https://doi. org/10.1108/jrf-12-2023-0314.

European Council (2024), Apulia G7 Leaders' Communiqué, [online] European Council. Available at: https://www.consilium.europa.eu/media/fttjgncg/apulia-g7-leaders-communique.pdf [Accessed 30 Nov. 2024].

Fengler, W., Kharas, H. and Caballero, J. (2022). The forgotten 3 billion. [online] Brookings. Available at: https://www. brookings.edu/articles/the-forgotten-3-billion/ [Accessed 7 Jan. 2025].

Financial Conduct Authority (2024). Finalised non-handbook guidance on the Anti-Greenwashing Rule. [online] Available at: https://www.fca.org.uk/publication/finalised-guidance/fq24-3.pdf [Accessed 30 Nov. 2024].

Flavelle, C. and Rojanasakul, M. (2024). As Insurers Around the U.S. Bleed Cash From Climate Shocks, Homeowners Lose. The New York Times. [online] 13 May. Available at: https://www.nytimes.com/interactive/2024/05/13/climate/insurance-homes-climate-change-weather.html [Accessed 10 Ian. 2025].

Flores-Contró, J.M., Henshaw, K., Loke, S.-H., Arnold, S. and Constantinescu, C. (2024). Subsidizing Inclusive Insurance to Reduce Poverty. North American Actuarial Journal, [online] pp.1–30. doi:https://doi.org/10.1080/10920277.2024.23116 73.

FSB (2024). Promoting Global Financial Stability: 2024 FSB Annual Report. [online] Financial Stability Board. Available at: https://www.fsb.org/uploads/P181124-2.pdf [Accessed 16 Jan. 2025].

Gallagher Re (2025). Natural Catastrophe and Climate Report: 2024. [online] Gallagher Re. Available at: https://www. ajq.com/gallagherre/-/media/files/gallagher/gallagherre/news-and-insights/2025/natural-catastrophe-and-climate-report-2025.pdf [Accessed 22 Jan. 2025].

Geneva Association (2022a). Insurance Development in Emerging Markets: The role of public policy and regulation. [online] The Geneva Association. Available at: https://www.genevaassociation.org/publication/public-policy-and-regulation/ insurance-development-emerging-markets-role-public [Accessed 31 Dec. 2024].

Geneva Association (2022b). The Role of Insurance in Promoting Social Sustainability. [online] The Geneva Association. Available at: https://www.genevaassociation.org/sites/default/files/2022-11/social_sustainability_report.pdf [Accessed 31 Dec. 2024].

Geneva Association (2023). The Value of Insurance in a Changing Risk Landscape. [online] The Geneva Association. Available at: https://www.genevaassociation.org/publication/social-financial-inclusion/value-insurance-changing-risk-landscape [Accessed 8 Jan. 2025].

Geneva Association (2024a). Climate Change: What does the future hold for health and life insurance? [online] The Geneva Association. Available at: https://www.genevaassociation.org/sites/default/files/2024-02/cch-report_web-270224.pdf [Accessed 7 Jan. 2025].

Geneva Association (2024b). Inclusive Insurance in Advanced Economies: Alleviating strains on society. [online] The Geneva Association. Available at: https://www.genevaassociation.org/sites/default/files/2024-11/inclusive_report_0711. pdf [Accessed 6 Jan. 2025].

Geneva Association (2025). Insurance in a Fragmented World Economy. [online] The Geneva Association. Available at: https://www.genevaassociation.org/sites/default/files/2025-02/geoeconomics_report_200225_digital.pdf [Accessed 24 Jan. 2025].

GFIA (2023). Global protection gaps and recommendations for bridging them. [online] Global Federation of Insurance Associations. Available at: https://gfiainsurance.org/mediaitem/652a6f95-5bf6-4f61-9bb7-3095a247a29d/GFIA%20 report%20Global%20protection%20gaps%20and%20recommendations%20for%20bridging%20them.pdf [Accessed 6 Jan. 2025].

GIZ (2025). Climate and Disaster Risk Finance: A Mosaic of Instruments. [online] Adaptation Community. Bonn and Eschborn, Germany: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. Available at: https://www.adaptationcommunity.net/publications/climate-and-disaster-risk-finance-a-mosaic-of-instruments/ [Accessed 10 Apr. 2025].

Global Shield Solutions Platform (2025). Groundbreaking Joint Grant Agreement signed as Global Shield Solutions Platform supports Regional Risk Pools' move from commitment to implementation. [online] Global Shield Solutions Platform. Available at: https://global-shield-solutions.org/2025/04/15/groundbreaking-joint-grant-agreement-signed-as-global-shield-solutions-platform-supports-regional-risk-pools-move-from-commitment-to-implementation/ [Accessed 19 Apr. 2025].

Gruber, J., Lin, M. and Yi, J. (2023). The Largest Insurance Expansion in History: Saving One Million Lives Per Year in China. [online] National Bureau of Economic Research. doi:https://doi.org/10.3386/w31423.

Hafner, M., Pollard, J. and van Stolk, C. (2018). Incentives and physical activity: An assessment of the association between Vitality's Active Rewards with Apple Watch benefit and sustained physical activity improvements. [online] RAND. Available at: https://www.rand.org/content/dam/rand/pubs/research_reports/RR2800/RR2870/RAND_RR2870.pdf [Accessed 7 Jan. 2025].

Hardach, S. (2024). 'Our plan worked': How Vienna prepared itself for a 5,000-year flood. [online] BBC. Available at: https://www.bbc.com/future/article/20240920-our-plan-worked-how-vienna-prepared-itself-for-a-5000-year-flood [Accessed 10 Jan. 2025].

Havel, V. (2018). The Power of the Powerless. London: Penguin Random House UK, p.146.

Hazell, P. and Varangis, P. (2020). Best practices for subsidizing agricultural insurance. Global Food Security, 25. doi:https://doi.org/10.1016/j.gfs.2019.100326.

Hearn, D., Hanawalt, C. and Sachs, L. (2023). Antitrust and Sustainability: A Landscape Analysis. [online] Columbia Center on Sustainable Investment. doi:https://doi.org/10.2139/ssrn.4547522.

Howden and BCG (2024). The bigger picture: The \$10 trillion role of insurance in mobilising the climate transition. [online] Howden Group. Available at: https://www.howdengroup.com/sites/huk.howdenprod.com/files/2024-06/the-bigger-picture-whitepaper.pdf [Accessed 30 Nov. 2024].

IAIS (2015). Issues Paper on Conduct of Business in Inclusive Insurance. [online] International Association of Insurance Supervisors. Available at: https://www.iaisweb.org/uploads/2022/01/151111-Issues-Paper-Conduct-of-Business-in-Inclusive-Insurance.pdf [Accessed 30 Nov. 2024].

IAIS (2024). Global Insurance Market Report. [online] International Association of Insurance Supervisors. Available at: https://www.iaisweb.org/uploads/2024/12/Global-Insurance-Market-Report-2024.pdf [Accessed 6 Jan. 2025].

ICMIF (2016). 45% of the world's countries do not have mutual/cooperative insurance law. [online] International Cooperative and Mutual Insurance Federation. Available at: https://www.icmif.org/news_story/45-of-the-worlds-countries-do-not-have-mutual-cooperative-insurance-law-according-to-latest-icmif-data/ [Accessed 30 Nov. 2024].

ICMIF (2024). Global Mutual Market Share 2024. [online] International Cooperative and Mutual Insurance Federation. Available at: https://www.icmif.org/wp-content/uploads/2024/04/ICMIF-Global-Mutual-Market-Share-2024-ENG.pdf [Accessed 10 Jan. 2025].

ICMIF and UNDRR (2021). From protection to prevention: The role of cooperative and mutual insurance in disaster risk reduction. [online] Available at: https://www.icmif.org/undrr-icmif-report/ [Accessed 15 Mar. 2025].

III (2024). Facts + Statistics: Careers and employment. [online] Insurance Information Institute. Available at: https://www.iii.org/fact-statistic/facts-statistics-careers-and-employment [Accessed 6 Jan. 2025].

ILO (2024). World Social Protection Report 2024-26. [online] International Labour Organization. Available at: https://www.ilo.org/sites/default/files/2024-09/WSPR_2024_EN_WEB_1.pdf [Accessed 7 Jan. 2025].

IMF (2024). GDP, current prices. [online] International Monetary Fund. Available at: https://www.imf.org/external/data-mapper/NGDPD@WEO/OEMDC/ADVEC/WEOWORLD [Accessed 6 Jan. 2025].

Insurance Europe (2024). Insurance Matters. [online] Insurance Europe. Available at: https://www.insuranceeurope.eu/publications/3221/insurance-matters/ [Accessed 6 Jan. 2025].

ITU (2023). Measuring digital development: Facts and Figures 2023. [online] International Telecommunication Union. Available at: https://www.itu.int/hub/publication/d-ind-ict_mdd-2023-1/ [Accessed 30 Nov. 2024].

Iyahen, E. (2025). Stewarding a Resilient Future: Why Insurance Matters. In: H. Kharas, K. Makino, J.W. McArthur and J. Nelson, eds., For the World's Profit. [online] Washington, D.C.: Brookings Institution Press January 9, 2025, pp.155–170. Available at: https://www.brookings.edu/books/for-the-worlds-profit/.

Johan Rockström (2024). The tipping points of climate change — and where we stand. [online] TED. Available at: https://www.ted.com/talks/johan_rockstrom_the_tipping_points_of_climate_change_and_where_we_stand?subtitle=en [Accessed 30 Nov. 2024].

Kotz, M., Levermann, A. and Wenz, L. (2024). The economic commitment of climate change. Nature, [online] 628(8008), pp.551–557. doi:https://doi.org/10.1038/s41586-024-07219-0.

Kousky, C. and You, X. (2024). The role of insurers in driving post-hurricane risk reduction investments. npj Natural Hazards, [online] 1(36). doi:https://doi.org/10.1038/s44304-024-00035-6.

Liedtke, P.M. (2007). What's Insurance to a Modern Economy? The Geneva Papers on Risk and Insurance - Issues and Practice, [online] 32, pp.211–221. doi:https://doi.org/10.1057/palgrave.gpp.2510128.

Lloyd's (2024). Lloyd's and the UNCDF to run parametric insurance training in climate vulnerable countries. [online] Lloyd's. Available at: https://www.lloyds.com/about-lloyds/media-centre/press-releases/lloyds-and-uncdf-to-run-parametric-insurance-training [Accessed 30 Nov. 2024].

Maslin, M., Ramnath, R.D., Welsh, G.I. and Sisodiya, S.M. (2025). Understanding the health impacts of the climate crisis. Future Healthcare Journal, [online] 12(1), p.100240. doi:https://doi.org/10.1016/j.fhj.2025.100240.

Mazzucato, M. and Adhanom Ghebreyesus, T. (2024). Advancing the economics of health for all. The Lancet, [online] 404(10457), pp.998–1000. doi:https://doi.org/10.1016/s0140-6736(24)01873-7.

Möhr, C., Yong, J. and Zweimueller, M. (2025). FSI Insights on policy implementation No 65 Mind the climate-related protection gap - reinsurance pricing and underwriting considerations. [online] International Association of Insurance Supervisors. Available at: https://www.iais.org/uploads/2025/03/FSI-Insights-65-Mind-the-climate-related-protection-gap-reinsurance-pricing-and-underwriting-considerations.pdf [Accessed 1 Apr. 2025].

Murphy, E., Banerjee, A. and Walsh, P.P. (2022). Partnerships and the Sustainable Development Goals. Springer Nature.

OECD (2024). Global Insurance Market Trends 2024. [online] OECD. Paris: OECD Publishing. Available at: https://doi.org/10.1787/5b740371-en [Accessed 6 Jan. 2025].

Plichta, M. and Poole, L. (2024). The State of Pre-Arranged Financing for Disasters 2024. [online] London: Centre for Disaster Protection. Available at: https://www.disasterprotection.org/publications-centre/the-state-of-pre-arranged-financing-for-disasters-2024 [Accessed 5 Jan. 2025].

Rasche, A. (2026). Sustainability in the Boardroom. Cambridge/New York: Cambridge University Press (forthcoming).

Reitmeier, L. (2024). What role do catastrophe bonds play in managing the physical risks from climate change? [online] The London School of Economics and Political Science. Available at: https://www.lse.ac.uk/granthaminstitute/explainers/what-role-do-catastrophe-bonds-play-in-managing-the-physical-risks-from-climate-change/ [Accessed 10 Jan. 2025].

Romanello, M., Walawender, M., Hsu, S.-C., Moskeland, A., Palmeiro-Silva, Y., Scamman, D., Ali, Z., Ameli, N., Angelova, D., Ayeb-Karlsson, S., Basart, S., Beagley, J., Beggs, P.J., Blanco-Villafuerte, L., Cai, W., Callaghan, M., Campbell-Lendrum, D., Chambers, J.D., Chicmana-Zapata, V. and Chu, L. (2024). The 2024 report of the Lancet Countdown on health and climate change: facing record-breaking threats from delayed action. The Lancet, [online] 404(10465), pp.1847–1896. doi:https://doi.org/10.1016/S0140-6736(24)01822-1.

Sachs, J.D., Lafortune, G., Cattaneo, O. and Fabregas, A. (2023). The Case for Long-Term SDG Financing. [online] SDSN. Available at: https://files.unsdsn.org/the-case-for-long-term-sdg-financing-e3a35f12.pdf.

Sachs, J.D., Lafortune, G. and Fuller, G. (2024). The SDGs and the UN Summit of the Future. Sustainable Development Report 2024. [online] SDSN. Dublin: Dublin University Press. doi:https://doi.org/10.25546/108572.

Sachs, L., Hearn, D., Goldklang, M. and Toledano, P. (2025). Distinguishing Among Climate Change-Related Risks | Columbia Center on Sustainable Investment. [online] Columbia Center on Sustainable Investment. Available at: https://ccsi.columbia.edu/news/distinguishing-among-climate-change-related-risks [Accessed 14 Mar. 2025].

Santos, A.S., Lima, M., Marques, T., Krug, T., Caprio, C., Saqueto, L., Arnold-Dwyer, F. and Oliveira, G. (2025). Risk Prevention and Resilience to Climate Droughts - Water Reuse and Innovative Financial Instruments. Preprints 2025, 2025021169. [online] Available at: https://doi.org/10.20944/preprints202502.1169.v1.

Sheehan, B., Mullins, M., Shannon, D. and McCullagh, O. (2023). On the benefits of insurance and disaster risk management integration for improved climate-related natural catastrophe resilience. Environment Systems and Decisions, 43, pp.639–648. doi:https://doi.org/10.1007/s10669-023-09929-8.

Smith, I. (2024). The uninsurable world: rethinking how to cover for climate damage. [online] Financial Times. Available at: https://www.ft.com/content/272fac7a-9d8f-4afe-a489-0ea6b5837ee5 [Accessed 10 Jan. 2025].

Smith, I. and Bryan, K. (2024). The uninsurable world: how the insurance industry fell behind on climate change. [online] Financial Times. Available at: https://www.ft.com/content/b4bf187a-1040-4a28-9f9e-fa8c4603ed1b [Accessed 10 Jan. 2025].

Smith, I., Mooney, A. and Williams, A. (2024). The uninsurable world: what climate change is costing homeowners. [online] Financial Times. Available at: https://www.ft.com/content/ed3a1bb9-e329-4e18-89de-9db90eaadc0b [Accessed 10 Jan. 2025].

Swiss Re (2025). Insurance-Linked Securities Market Insights: Edition XXXVII, February 2025. [online] Swiss Re. Available at: https://www.swissre.com/dam/jcr:e4989a50-1a40-49fd-bba2-87a4b6da1015/ils-market-insights-february-2025.pdf [Accessed 15 Mar. 2025].

Swiss Re Institute (2023). The Life & Health Insurance Inclusion Radar: Why markets are more, or less, inclusive. [online] Swiss Re. Available at: https://www.swissre.com/dam/jcr:fac623c8-014a-4c73-99ef-43518493a275/2023-03-sri-insurance-inclusion-radar.pdf [Accessed 7 Jan. 2025].

Swiss Re Institute (2024). Resilience Index 2024: encouraging resilience gains, but more is needed. [online] Swiss Re. Available at: https://www.swissre.com/dam/jcr:577c79d6-b015-41fd-9eee-47927efb2136/sigma-resilience-index-2024. pdf [Accessed 6 Jan. 2025].

Trust, S., Saye, L., Bettis, O., Bedenham, G., Hampshire, O., Lenton, T.M. and Abrams, J.F. (2025). Planetary Solvency finding our balance with nature: Global risk management for human prosperity. [online] Institute and Faculty of Actuaries. Institute and Faculty of Actuaries & University of Exeter. Available at: https://actuaries.org.uk/document-library/ thought-leadership/thought-leadership-campaigns/climate-papers/planetary-solvency-finding-our-balance-with-nature/.

U.S. Chamber of Commerce (2024). The Preparedness Pavoff: The Economic Benefits of Investing in Climate Resilience. [online] U.S. Chamber of Commerce. Available at: https://www.uschamber.com/assets/documents/USCC 2024 Allstate Climate_Resiliency_Report.pdf [Accessed 10 Jan. 2025].

UN (1987). Report of the World Commission on Environment and Development: Our Common Future. [online] United Nations Department of Economic and Social Affairs - Sustainable Development. Available at: https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf [Accessed 30 Nov. 2024].

UN (2000). United Nations Millennium Declaration. [online] United Nations. New York: United Nations. Available at: https://documents.un.org/doc/undoc/gen/n00/559/51/pdf/n0055951.pdf [Accessed 30 Nov. 2024].

UN (2012), Report of the United Nations Conference on Sustainable Development, [online] United Nations, New York; United Nations. Available at: https://documents.un.org/doc/undoc/gen/n12/461/64/pdf/n1246164.pdf [Accessed 3 Jan. 2025].

UN (2015a). Addis Ababa Action Agenda of the Third International Conference on Financing for Development. [online] United Nations. New York: United Nations. Available at: https://www.un.org/esa/ffd/wp-content/uploads/2015/08/AAAA_ Outcome.pdf [Accessed 3 Jan. 2025].

UN (2015b). Transforming our World: The 2030 Agenda for Sustainable Development. [online] United Nations. New York: United Nations. Available at: https://documents.un.org/doc/undoc/gen/n15/291/89/pdf/n1529189.pdf [Accessed 30 Nov. 20241.

UN (2023a), Follow-up to and implementation of the outcomes of the International Conferences on Financing for Development. [online] Available at: https://documents.un.org/doc/undoc/gen/n23/430/02/pdf/n2343002.pdf [Accessed 3 Jan. 2025].

UN (2023b). Our Common Agenda Policy Brief 6: Reforms to the International Financial Architecture. [online] United Nations. Available at: https://www.un.org/sites/un2.un.org/files/our-common-agenda-policy-brief-international-finance-architecture-en.pdf [Accessed 31 Dec. 2024].

UN (2024a), Financing for Sustainable Development Report 2024. [online] United Nations, New York: United Nations. Available at: https://desapublications.un.org/publications/financing-sustainable-development-report-2024 [Accessed 31 Dec. 2024].

UN (2024b). Pact for the Future, Global Digital Compact and Declaration on Future Generations. [online] United Nations. New York: United Nations. Available at: https://www.un.org/sites/un2.un.org/files/sotf-pact_for_the_future_adopted.pdf [Accessed 30 Nov. 2024].

UNCDF (2023). Access to Insurance Initiative (A2ii) and United Nations Capital Development Fund (UNCDF) Launch Training on Index Insurance. [online] United Nations Capital Development Fund. Available at: https://www.uncdf.org/article/8518/access-to-insurance-initiative-a2ii-and-united-nations-capital-development-fund-uncdf-launch-training-on-index-insurance [Accessed 30 Nov. 2024].

UNCDF (2024), UNCDF establishes first of its kind disaster resilience vehicle with Lloyd's. [online] United Nations Capital Development Fund. Available at: https://www.uncdf.org/article/8809/uncdf-establishes-first-of-its-kind-disaster-resilience-vehicle-with-lloyds [Accessed 30 Nov. 2024].

UNCTAD (2024). A world of Debt Report 2024: A growing burden to global prosperity. [online] United Nations Trade and Development. Available at: https://unctad.org/system/files/official-document/osqttinf2024d1_en.pdf [Accessed 22 Jan. 2025].

UNDRR (2015). Sendai Framework for Disaster Risk Reduction 2015-2030. [online] UNDRR. Available at: https://www. undrr.org/publication/sendai-framework-disaster-risk-reduction-2015-2030 [Accessed 3 Jan. 2025].

UNDRR (2017a). The Sendai Framework Terminology on Disaster Risk Reduction: Disaster risk. [online] United Nations Office for Disaster Risk Reduction. Available at: https://www.undrr.org/terminology/disaster-risk [Accessed 10 Jan. 2025].

UNDRR (2017b). The Sendai Framework Terminology on Disaster Risk Reduction: Disaster risk management. [online] United Nations Office for Disaster Risk Reduction. Available at: https://www.undrr.org/terminology/disaster-risk-management [Accessed 10 Jan. 2025].

UNDRR (2022). #NoNaturalDisasters. [online] PreventionWeb. Available at: https://www.preventionweb.net/organization/nonaturaldisasters [Accessed 10 Jan. 2025].

UNDRR (2023). Our impact. [online] United Nations Office for Disaster Risk Reduction. Available at: https://www.undrr.org/our-work/our-impact [Accessed 10 Jan. 2025].

UNDRR (2024). Report of the Secretary-General on the Implementation of the Sendai Framework for Disaster Risk Reduction 2015–2030 (2024). [online] United Nations Office for Disaster Risk Reduction. Available at: https://www.undrr.org/publication/report-secretary-general-implementation-sendai-framework-disaster-risk-reduction-2015-7#downloads [Accessed 10 Jan. 2025].

UNEP (2022). Kunming-Montreal Global Biodiversity Framework. [online] Available at: https://www.cbd.int/doc/decisions/cop-15/cop-15-dec-04-en.pdf [Accessed 30 Nov. 2024].

UNFCCC (2015). Paris Agreement. [online] UNFCCC. Available at: https://unfccc.int/sites/default/files/resource/parisagreement_publication.pdf [Accessed 30 Nov. 2024].

UNICEF (2024). Innovative financing for a safer future: reshaping cyclone resilience and child-responsive disaster management: Year 1 Results of the Today and Tomorrow Initiative. [online] United Nations International Children's Emergency Fund. Available at: https://www.unicef.org/media/164511/file/UNICEF%20-%20Year%201%20Results%20-%20 Today%20and%20Tomorrow%20Initiative%202024.pdf [Accessed 30 Nov. 2024].

Vitality and London School of Economics (2024). The Vitality Habit Index Quantifying habits and their impact on health The Vitality Habit Index. [online] London School of Economics and Political Science. Available at: https://www.lse.ac.uk/business/consulting/assets/documents/Vitality-Habit-Index-White-Paper-March-2024.pdf [Accessed 7 Jan. 2025].

WEF (2024). Business on the Edge: Building Industry Resilience to Climate Hazards. [online] World Economic Forum. Available at: https://reports.weforum.org/docs/WEF Business on the Edge 2024.pdf [Accessed 31 Dec. 2024].

WEF (2025). The Global Risks Report 2025. [online] World Economic Forum. Available at: https://reports.weforum.org/docs/WEF_Global_Risks_Report_2025.pdf [Accessed 12 Mar. 2025].

WFP (2024). Annual performance report for 2023. [online] World Food Programme. Available at: https://executiveboard.wfp.org/document_download/WFP-0000157354 [Accessed 30 Nov. 2024].

WHO (2023a). Health for All – transforming economies to deliver what matters: Final report of the WHO Council on the Economics of Health for All. [online] World Health Organization. Geneva: World Health Organization. Available at: https://iris.who.int/bitstream/handle/10665/373122/9789240080973-eng.pdf?sequence=1 [Accessed 7 Jan. 2025].

WHO (2023b). Noncommunicable diseases. [online] World Health Organisation. Available at: https://www.who.int/newsroom/fact-sheets/detail/noncommunicable-diseases [Accessed 30 Nov. 2024].

WHO (2024). WHO's Operational Update on Health Emergencies. [online] World Health Organization. Available at: https://cdn.who.int/media/docs/default-source/documents/emergencies/who_mou_jul2024_final.pdf?sfvrsn=5e17c-b12 3&download=true [Accessed 30 Nov. 2024].

WHO and World Bank (2023). Tracking universal health coverage: 2023 global monitoring report. [online] World Health Organization. Geneva: World Health Organization and International Bank for Reconstruction and Development / The World Bank. Available at: https://iris.who.int/bitstream/handle/10665/374059/9789240080379-eng.pdf?sequence=1 [Accessed 7 Jan. 2025].

Willard, J. (2025). PERILS ups storm Boris European flood industry loss estimate 5% to €2.19bn. [online] Artemis. Available at: https://www.artemis.bm/news/perils-ups-storm-boris-european-flood-industry-loss-estimate-5-to-e2-19bn/ [Accessed 25 Mar. 2025].

World Bank (2013). World Development Report 2014: Risk and Opportunity—Managing Risk for Development. [online] World Bank Group. Washington D.C.: World Bank Group. Available at: http://hdl.handle.net/10986/16092.

World Bank (2024a). International Debt Report 2024. [online] World Bank Group. Available at: http://hdl.handle. net/10986/42444 [Accessed 10 Jan. 2025].

World Bank (2024b). Poverty, Prosperity, and Planet Report 2024: Pathways Out of the Polycrisis. [online] World Bank Group. Washington, D.C.: World Bank Group. Available at: http://documents.worldbank.org/curated/ en/099101424092027337 [Accessed 7 Jan. 2025].

World Bank (2025). Crisis Preparedness and Response Toolkit: Brief. [online] World Bank Group. Available at: https:// www.worldbank.org/en/about/unit/brief/crisis-preparedness-and-response-toolkit [Accessed 15 Mar. 2025].

