



Contents

Executive summary

10	Why is nature important for the insurance sector?
10	Overview
11	Insurers depend upon and impact nature
 11	Nature loss is exposing insurers to increased risk
13	Climate change and nature loss are creating challenges with insurability
14	Recent policy and regulation developments
14	Overview
14	International policy and regulatory developments
15	Australian Sustainable Finance Strategy
16	The shift to resilient and nature-positive insurance
16	Overview
16	What is nature-positive insurance?
17	What does this mean for Australian insurers?
18	Nature opportunities for Australian insurers
18	Overview
19	Nature-based solutions to protect insured assets
22	Innovative insurance products to scale nature financing
24	Incentivising behaviours that reduce negative impacts and facilitate the nature-positive transition
24	Integrating nature-related resilience into risk management and underwriting practices
26	Public-Private Partnerships
28	Where can insurers start
30	Appendix A – Glossary
31	Appendix B - References

Practical steps to advance nature-positive insurance in Australia

About ICA

The ICA is the representative body for the general insurance sector of Australia. General insurance has a critical role in the economy, insulating individuals and businesses from the financial impact of loss or damage to their insured assets. The ICA's work with its members, consumer groups and all levels of government serves to support consumers and communities when they need it most. ICA members represent approximately 90% of private sector general insurers, spanning both insurers and reinsurers. Our members provide insurance products ranging from those usually purchased by individuals, such as home and contents insurance, to those purchased by small businesses and larger organisations, such as product and public liability insurance. The ICA is committed to shaping positive outcomes for our members, our people, and our communities by supporting fair policy outcomes, effectively engaging members, and purposefully advocating on behalf of its members. The ICA believes an insurable Australia is a resilient Australia, and its purpose is to be the voice of a resilient Australia.

About EY

With a 20+ year legacy in sustainability services, EY combines deep technical skills across a breadth of issues to help business create value for sustainability as well as help sustainability create value for business. By working in this way, we help build a better, more sustainable working world. We call this value-led sustainability, and it's everybody's business.

EY assisted in a joint project, and the results of EY's work are included in this report. However, this report is the responsibility of management of the ICA.

EY Disclaimer

Ernst & Young, Australia ("EY") was engaged on the instructions of the Insurance Council of Australia ("ICA") to produce this report on nature-related solutions and opportunities for the insurance sector in Australia in accordance with the engagement agreement dated 17 January 2024, including the General Terms and Conditions ("Report").

This Report must not be relied upon by any party other than ICA. EY disclaims all responsibility to any other party for any loss or liability that the other party may suffer or incur arising from or relating to or in any way connected with the Report, the provision of the Report to the other party or the reliance upon the Report by the other party.

EY's liability is limited by a scheme approved under Professional Standards Legislation. This Report is advisory in nature and therefore does not constitute an audit, review or other form of assurance in accordance with any generally accepted auditing, review or other assurance standards, and accordingly we do not express any form of assurance.





Foreword



Insurance and the natural world are inextricably linked. From protecting the coral reefs that insulate our nation's coastlines from erosion, to driving investment in environmental solutions that drive down climate risk, insurance is both an enabler and beneficiary of thriving ecosystems.

This report, Advancing Resilient Nature Positive Insurance, delves deeper into the connections between insurance and nature. From underwriting and investing in the food and agricultural industries that rely on healthy and abundant crops, livestock, clean water, and a stable climate, to the construction and manufacturing companies that need natural materials to make their products.

All of these sectors (and more) rely on either the direct extraction of natural resources or the provision of 'ecosystem services' that are supported by the environment. In this report we explore why these relationships will be critical for the insurance sector to effectively manage and build long-term resilience against nature-related financial risks, while also enabling our industry to seize nature-positive opportunities.

Building on last year's report, Valuing Nature for a Resilient Future, this expanded report takes a deep-dive into the connections between insurance and the environment and explores the concept of 'nature-positive insurance' – a concept which is gaining momentum, as insurers integrate nature-reliant assets into their underwriting and investments.

Now is the time for Australian insurers to act, embracing opportunities to drive a resilient future where the economy and society exist in harmony with nature. The spate of extreme weather events in Australia over the past decade – bushfires, floods, and droughts – serves as a stark reminder of the growing financial impact of environmental degradation. In the five years since the 2019–20 Black Summer bushfires, insurers have paid out almost \$20 billion in natural disaster claims from 14 declared catastrophes and seven significant events.

These events are having a direct impact on the cost of insurance premiums, particularly for vulnerable communities in high-risk locations. This in turn, widens the protection gap, leaving many Australians without the financial protection of insurance coverage.

Activity that supports and safeguards nature and nature reliant assets are emerging as effective strategies for insurers to protect insured assets and build resilience to climate change impacts. This serves to moderate current and future risk – action that is essential to reducing the impact of damage in our natural and built environment and alleviating rising pressure on insurance premiums.

By embracing innovative solutions that foster harmony between society and the environment, Australian insurers can pave the way for a more resilient future. Failing to halt and reverse nature loss will intensify the effects of climate change and worsen the nation's growing insurability crisis. The next decade presents a crucial opportunity for Australian insurers to help mitigate nature-related risks and support the transition to a nature-positive future.

This report offers valuable insights and recommendations to navigate this crucial journey.

Andrew Hall

CEO and Executive Director

Executive summary

Nature underpins the global economy; more than half of the world's gross domestic product, equivalent to US\$44 trillion, is highly or moderately dependent on nature.¹

We don't only depend on nature for economic prosperity, it helps support the stable climate conditions we need and provides us with greater resilience to natural hazards. Therefore, its degradation exposes us to significant risk. In Australia, natural capital has been declining at an alarming rate with 10 out of 18 ecosystems at risk of collapse.² Given our significant dependence on nature, biodiversity loss and ecosystem collapse are among the greatest risks facing the world over the next 10 years.³

The insurance industry plays a crucial role in managing economic and financial risk and building our resilience to extreme weather events and other natural hazards.

Insurance frequently acts as the economy's risk mitigation strategy. Insurers provide financial protection and enable individuals, communities, and businesses to recover from extreme weather and other natural hazards. As large institutional investors, insurers are also directly impacted by economic downturn or asset damages resulting from nature loss and climate change.

With growing recognition of the importance of nature, governments, companies and financial institutions are increasingly directing efforts toward putting nature on a pathway to recovery by 2030.

In December 2022, at the United Nations Convention on Biological Diversity Conference of the Parties (COP15) in Montreal, over 180 countries adopted the Global Biodiversity Framework (GBF), a set of four goals and 23 targets to halt and reverse the global decline of nature.⁴ Global endorsement of the GBF sent a strong signal for businesses and financial institutions; it's time to prepare for the nature-positive transition. This will require a shift in business models and strategies, one insurers must quickly adapt with to effectively manage risk, stay competitive and maintain social licence to operate.

The concept of nature-positive insurance is gaining momentum, with insurers taking action to embed nature considerations into their core underwriting and investment activities.

More than ever before, Australian insurers must take action to seize opportunities and solutions to accelerate the transition toward a more resilient future, with an economy and society that exists in harmony with nature.

Nature-based solutions provide opportunities for protecting insured assets and building resilience to climate change impacts.

Climate change and nature loss are creating insurability challenges. Internationally, nature-based solutions that leverage natural systems and processes are emerging as effective strategies for insurers to mitigate physical climate risks exposure of insured assets. In turn, this can contribute to limiting cost exposure from natural hazard damages and the growth of premium pricing.

- 1. WEF. 2020. Nature risk rising: why the crisis engulfing nature matters for business and the economy.
- 2. Department of Climate Change, Energy, the Environment and Water. (2021). Australia State of the Environment 2021.
- 3. WEF. 2024. The Global Risks Report.
- 4. Convention on Biological Diversity. 2022. COP15: Nations Adopt Four Goals, 23 Targets for 2030 In Landmark UN Biodiversity Agreement.



Executive summary continued

This paper Advancing Resilient Nature Positive Insurance provides an overview of why nature is important for insurers in the context of increasing nature-related risk, and the actions by policymakers and regulators to respond to such risk. It explores the concept of 'nature-positive insurance', what this means, and the opportunities for Australian insurers, including real world case studies. The paper concludes with practical steps for Australian insurers to advance nature-positive insurance practices.

This paper builds on the ICA's recent paper Valuing Nature for a Resilient Future, which explores the key links between insurance and nature, including how nature-related risks and opportunities can manifest. Please refer to this prior publication for more detail on the nature context and why it is important for the insurance sector.

Practical steps to advance nature-positive insurance in Australia

Australia's economic prosperity is underpinned by nature. Australia's resource intensive economy is significantly dependent on nature.⁵ Our major sectors and exports, namely mining, agriculture, construction, and manufacturing, can also significantly impact natural ecosystems and biodiversity, contributing to nature loss.⁶

A failure to halt and reverse nature loss will exacerbate the impacts of climate change and the insurance protection gap. The next ten years offer a critical window for Australian insurers to play their part in mitigating nature-related risks and facilitating the nature-positive transition. Insurers do not need to wait for regulatory and policy environments to fully develop to enable change. Transformation of existing business models will be required to achieve a nature-positive future and there is much that can, and must, be actioned.

This report provides examples of how insurers can focus their efforts to advance nature-positive insurance practices in Australia. These steps are adapted from the *UNEP Finance Initiative's Nature-Positive Insurance: Evolving Thinking and Practices*⁷ report and research undertaken by the Association of British Insurers (ABI).8

- 5. Herd, E. & Hatfield-Dodds, S. 2023. Creating a nature-positive advantage: Assessing the outlook for Australia in a net zero world.
- 6. Australian Bureau of Statistics. 2023. Australian Industry.
- 7. UN Environment Programme Finance Initiative. 2023. Nature-Positive Insurance: Evolving Thinking and Practices.
- 8. Association of British Insurers. 2023. A Guide to Nature Action: Securing our natural world.

Courtesy Unsplash.
Pink Lake in Port Gregory



Figure 1: Examples of how insurers can advance nature-positive insurance practices

1. Embed nature into business strategy

Insurers can start embedding nature-positive insurance principles into their business by understanding nature-related risks and opportunities across their entire value chain, and by integrating nature considerations into governance, strategy, risk management, financial decision-making and reporting processes.

2. Integrate nature into products and services

Insurers can facilitate the protection and restoration of nature through the products and services they offer, including innovative commercial services to protect and underwrite valuable natural assets; product incentives to encourage policyholders to adopt sustainable practices and/or reduce their exposure to extreme weather and other natural hazards; sustainable claim options; and establishing underwriting and investment criteria to screen for nature-negative activities and encourage activities that contribute to heightened nature-related outcomes.

3. Engage and collaborate with key stakeholders

Insurers can play a pivotal role in advancing the nature-positive transition through practicing insurer and investor stewardship to influence clients and investees to take actions aligned with halting and reversing nature loss. Insurers can also engage, collaborate and advocate for a science-based and socially just nature-positive transition; the development of standardised nature-metrics for underwriting activities; and best practice guidelines or framework for nature target setting for insurers.

Why is nature important for the insurance sector?

While the connection may not be immediately obvious, insurance and nature are intertwined on many fronts. Insurers underwrite and invest in industries reliant on natural resources and ecosystem services, and climate change and nature loss are exposing insurers to increased risk. This section provides an updated summary of this relationship and what this means for Australian insurers.

Overview

Nature is defined as the natural world and focuses on the diversity of all living organisms and the interactions amongst them and their environment.⁹

The global economy critically depends on nature and the services it provides.¹⁰ Nature also supplies our food, water, clean air, clothes, construction materials, medicine, stable climate conditions and recreational and cultural values.

Insurance plays a fundamental role in the economy, underpinning all aspects of daily life, from running a business or car to protecting our homes. Insurance is becoming increasingly important, particularly in a country like Australia where extreme weather events offer regular reminders of the challenges we face protecting our properties, lives, and livelihoods.

There are connections between insurance and nature everywhere, from underwriting and investing in the food and agricultural industries that rely on healthy and abundant crops, livestock, and well-stocked oceans, to the construction, manufacturing, and clothing companies that need timber, cotton, and other natural materials to make their products. All these sectors (and more) rely on either the direct extraction of natural resources or the provision of "ecosystem services" that are supported by the environment, such as healthy soils, clean water, pollination, and a stable climate.¹¹

Understanding these relationships will be critical for the insurance sector to effectively manage and build long-term resilience against nature-related financial risks and seize nature-positive opportunities. This section explores the relationship between nature and insurance.



- 9. Díaz, S. et al. 2015. The IPBES Conceptual Framework connecting nature and people. Current Opinion in Environmental Sustainability, 14: 1–16.
- 10. WEF. 2020. Nature risk rising: why the crisis engulfing nature matters for business and the economy.
- 11. Faull, N. 2022., Can we insure the natural world?

Insurers depend upon and impact nature

The Australian insurance industry is made up of underwriting and investment practices. The economic sectors that form part of their portfolios are both dependent upon and impact nature.

Underwriting and investments help companies manage risk, grow and continue to do business; ultimately facilitating their positive and negative impacts on nature. In Australia, the most significant impacts on nature result from invasive species, habitat loss due to agriculture and urban sprawl, climate change, industrial pollution, mining, and excessive water use.¹²

Insurance companies are directly dependent on nature through their operations, and indirectly through their policyholders' and investees' dependencies, which directly affects the risks and returns associated with insurance policies and investment portfolios. Australia's agriculture; forestry; construction; energy; waste and water utilities; mining; real estate and manufacturing sectors have the most material dependencies on nature and the services it provides.¹³

Ultimately, insurers depend on a thriving economy and the ability to provide affordable insurance, both of which hinge on a healthy and functioning natural environment that supports economic stability, reduces catastrophic risks, and underpins the sustainability of the industries and assets they underwrite and invest in. It will be critical for insurers to prioritise efforts toward identifying and understanding the sectors they participate in that have the most material impacts and dependencies on nature, in order to effectively manage the associated nature-related risks and opportunities.

Nature loss is exposing insurers to increased risk

Five of the top 10 more severe global risks over the next decade are environmental (Figure 2).¹⁴ Nature loss exacerbates these risks for insurers by increasing the frequency and severity of extreme weather events and degrading the resources and services upon which economies and insurable assets rely.¹⁵

These threats have been directly realised by the Australian insurance sector. Insurers have experienced an 8% increase in gross claim costs associated with recent adverse weather events in New South Wales (NSW) and South-Eastern Queensland (QLD). In 2022 alone, there were more than 302,000 disaster related claims lodged from four declared insurance events across the country, costing \$7.28 billion in insured losses.

- 12. Department of Climate Change, Energy, the Environment and Water. (2021). Australia State of the Environment 2021.
- $13. \ Australian \ Conservation \ Foundation. \ 2022. \ The \ nature-based \ economy: \ How \ Australia's \ prosperity \ depends \ on \ nature.$
- 14. WEF. 2024. The Global Risks Report.
- $15. \ Herd, E.\ \&\ Hatfield-Dodds, S.\ 2023.\ Creating\ a\ nature-positive\ advantage:\ Assessing\ the\ outlook\ for\ Australia\ in\ a\ net\ zero\ world.$
- 16. Australian Prudential Regulation Authority. 2023. Quarterly general insurance performance statistics highlights.
- 17. ICA. 2023. Insurance Catastrophe Resilience Report 2022–23.
- 18. WEF. 2024. The Global Risks Report.
- 19. United Nations Development Program and Sustainable Insurance Forum. 2021. Nature-Related Risks in the Global Insurance Sector.
- 20. Department of Climate Change, Energy, the Environment and Water. (2021). Australia State of the Environment 2021.
- 21. TNFD. 2023. Recommendations of the Taskforce on Nature-related Financial Disclosures.
- 22. Short-term, specific events that change the state of an ecosystem, e.g. loss of crop yield due to acute water shortage from drought.
- 23. Longer terms shifts in the way that ecosystem's function or cease to function, e.g. loss of crop yield due to decline in pollination services.

Figure 2: World Economic Forum 2024 Global Risks ranked by severity over a 10-year period¹⁸



Despite these threats, nature is declining globally as a result of human activity, namely natural resource exploitation, land and sea-use change, climate change, pollution, and invasive alien species.¹⁹ Australia's most recent State of Environment Report highlights the trend of natural capital declining with 10 out of 18 ecosystems at risk of collapse.²⁰

Our Valuing Nature for a Resilient Future report provides detail on how physical, transition and systemic nature risks manifests in the insurance sector.²¹ Physical and systemic nature risks can manifest for insurers because of the loss, degradation and breakdown of natural ecosystems that underpin the economy. Evolving market and regulatory landscapes driven by growing pressures to protect and restore nature also pose transition risks. In summary:

- 1. **Physical risks** are a direct result of an organisation's dependencies on nature. These are risks arising when natural systems are compromised, due to the impact of climatic events (e.g. extreme weather such as a drought), geologic events (e.g. seismic events such as an earthquake) or changes in ecosystem equilibria, such as changes in soil and air quality or ocean chemistry. These can be acute, ²² chronic²³ or both. Nature-related physical risks are broad and often associated with climate-related physical risks.
- 2. **Transition risks** result from a misalignment between an organisations strategy and management and the changing landscape in which it operates. Developments aimed at halting or reversing the damage to nature, such as government regulations or policy, technological developments, market changes, litigation and changing consumer preferences, can all result in transition risks.
- 3. **Systemic risks** are risks arising from the breakdown of the entire system, rather than the failure of individual parts. They arise from economy-wide dependencies and impacts on nature that affect critical natural systems or financial stability at the portfolio or system level.

Insurers, in their dual role as underwriters and investors, have significant opportunities to proactively help manage these risks, halt nature loss and facilitate the transition to a more resilient and sustainable economy. Nature-positive insurance and nature-related opportunities for the insurance sector are discussed later in this report.

Climate change and nature loss are creating challenges with insurability

Frequent and severe weather events such as bushfires, floods, storms, droughts, and heatwaves in Australia have contributed to rising insurance claims, impacting the affordability and availability of insurance. This, in turn, widens the insurance protection gap, with communities in high-risk areas either under insured, or not insured.

Approximately 1.24 million Australian households are facing home insurance affordability stress, with South-East Queensland and Northern NSW expected to be the most effected due to their high exposure to extreme weather events.²⁴

Nature loss and climate change are explicitly linked, with the two interconnected issues reinforcing one-another. Climate change is a primary driver of nature loss. Nature loss accelerates climate change as degraded or cleared natural environments are less equipped to absorb atmospheric carbon or provide protection against extreme weather events.

Coordinated, holistic approaches to managing these issues will be essential to avoid the most severe environmental, economic and social implications of these crises. Nature-positive actions will be a core element of achieving net zero and building climate resilience.

Tackling climate change and nature loss holistically will deliver efficiencies, maximise resilience and foster enhanced social, economic and environmental outcomes. Notably, modelling suggests that nature-based land sector carbon credit projects could account for around a quarter (27%) of Australia's national abatement required to achieve net-zero by 2050.²⁵

Insurers have sophisticated approaches to extreme weather modelling, including the climate risks associated with extreme weather events. These modelling approaches are continually evolving to better understand linkages between climate-related and financial risks, and these models could be further improved to understand the interlinkages with related nature impacts, for example such as flooding, bushfire risks and coastal erosion. Courtesy Unsplash Gold Coast.

^{24.} Actuaries Institute. 2023. Home Insurance Affordability Update.

^{25.} Herd, E. & Hatfield-Dodds, S. 2023. Creating a nature-positive advantage: Assessing the outlook for Australia in a net zero world.

Recent policy and regulation developments

Since publication of our *Valuing Nature for a Resilient Future* report, nature-related policy and regulatory developments have accelerated. This section of the report discusses recent policy and regulatory developments, in response to growing appreciation for the importance of nature.

Overview

At COP15, the Global Biodiversity Framework (GBF) was endorsed by 188 countries, including Australia. The GBF outlines four goals and 23 targets aimed at halting and reversing the global decline of nature and biodiversity.²⁶

Since then, international action to protect and restore nature has accelerated. Key developments relevant for Australian insurers include:

- Rise in sustainability reporting requirements that capture biodiversity and ecosystem services;
- · Enhancement of regulations to protect nature;
- Advancement of Australia's sustainable finance policy landscape

These developments illustrate the increasing focus that government and regulators are placing on nature, and provide an early signal for Australian financial institutions and businesses to begin preparing for potential mandatory nature-related reporting requirements in future. This section explores these recent developments and their implications for insurers.

International policy and regulatory developments

In June 2023, the ISSB released its inaugural sustainability reporting standards; IFRS S1 General Requirements for Disclosure of Sustainability-related Financial Information and IFRS S2 Climate-related Disclosures. These standards establish a new global baseline on how organisations should disclose financially relevant sustainability and climate-related information.

The final TNFD framework was released in September 2023. The framework provides corporates and financial institutions (including insurers) with a framework to identify, assess, manage, and report nature-related risks and opportunities. In January 2024, the TNFD announced the inaugural cohort of Early Adopters that have committed to start making disclosures aligned with the TNFD recommendations in their corporate reporting by the financial year 2025 or earlier. This included 12 international insurers across Japan, France, Finland, Kenya and South Africa, notably AXA, Nippon Life Insurance, and Sompo Holdings which all operate within Australia. TNFD is in the process of establishing a working group to provide guidance on the nature-positive transition. The working group will facilitate global engagement for corporations and financial institutions to share current knowledge and build capacity for nature-related reporting.27

^{26.} Convention on Biological Diversity. 2022. COP15: Nations Adopt Four Goals, 23 Targets for 2030 In Landmark UN Biodiversity Agreement.

^{27.} Gambetta, G. 2023. TNFD forming working group on nature in transition plans.

^{28.} IFRS. 2024. ISSB to commence research projects about risks and opportunities related to nature and human capital.

^{29.} Azizuddin, K, 2024, Chinese exchanges endorse double materiality in Market-first disclosure.

^{30.} European Parliament, 2023. Environmental crimes: deal on new offences and reinforced sanctions.

^{31.} Australian Treasury. 2024. New legislation to strengthen financial system and boost investment in cleaner cheaper energy.

^{32.} Australian Treasury. 2023. Sustainable Finance Strategy.

 $^{{\}tt 33.}\, {\tt Australian}\, {\tt Sustainable}\, {\tt Finance}\, {\tt Taxonomy},\, {\tt 2024}.\, {\tt \textit{Public consultation}}.$

In April 2024, the ISSB announced it will commence projects to research disclosures about risks and opportunities associated with biodiversity, ecosystems and ecosystem services.²⁸ This includes consideration of how the ISSB will build from existing initiatives such as the TNFD.

Future ISSB standards that include nature are expected to influence future mandatory nature-related reporting requirements globally, as experienced with climate-related reporting. Several jurisdictions are already beginning to introduce mandatory sustainability reporting requirements that include biodiversity and ecosystem services considerations including the European Union and China.²⁹

This is reflective of a broader push in several jurisdictions to introduce stricter regulations to enhance protections for nature, such as the updates to the EU environmental crimes and sanctions rules. These have introduced tougher penalties for individuals and companies found guilty of environmental negligence equivalent to "ecocide".³⁰

These developments highlight an accelerating shift towards transparency and accountability across global financial markets. Australian insurers, especially those linked to international parent companies or have downstream investments in key export markets, must prepare to align with the changing regulatory landscape, or else risk the repercussions of non-compliance.

Australian Sustainable Finance Strategy

Following the release of the exposure draft legislation in January 2024, the Australian Treasury introduced into Parliament the *Treasury Laws*Amendment (Financial Market Infrastructure and Other Measures) Bill 2024 that sets out new climate-related financial reporting requirements.

Mandatory climate disclosure will begin for financial years starting on or after 1 January 2025.31

Broader mandatory sustainability reporting requirements, including nature, are yet to be announced. However, the Government indicated as part of its recent Australia Sustainable Finance Strategy its intent to enhance capacity for nature-related financial risk reporting and provide flexibility to expand climate disclosure requirements to include nature elements in the future.³²

Australia's sustainable finance taxonomy is currently under development, including nature-related do no significant harm provisions. The draft technical screening criteria for three priority sectors (electricity generation and supply; minerals, mining and metals; and construction and the built environment) will be open for public consultation from May 2024.³³

The developments demonstrate nature is no longer a peripheral issue. It is imperative that Australian insurers begin enhancing capacity competency to integrate nature into their decision-making, strategic planning and reporting.

Increased nature-related reporting will benefit Australian insurers in enhancing their understanding of risk, allowing more accurate pricing policies and product innovation. This could improve resiliency against nature-related incidents and enables more affordable and accessible insurance for consumers.



The shift to resilient and nature-positive insurance

This section explores the concept of 'nature positive', its relevancy and application to the insurance industry, and the implications for Australian insurers.

Overview

Global awareness of nature flowing through to financial risks has accelerated, leading to increasing expectations for businesses to report on how they are managing these risks and implement 'nature-positive' strategies. While there is no universally accepted definition for nature-positive, common elements include:

- Halting and reversing nature loss, with interactions with nature being restorative and reqenerative rather than solely extractive;
- Nature is on a visible and measurable pathway to recovery by 2030;
- Nature considerations are at the heart of corporate strategy and decision-making, and fully integrated with climate change and human rights actions; and
- Organisations demonstrating positive biodiversity outcomes across their entire value chain.³⁴

Mounting external pressures are likely to result in businesses being expected to embrace a nature-positive approach with the same level of rigour as experienced with net zero. As more companies make nature-positive targets and claims, definition standardisation will become increasingly important for transparency, comparability, and to mitigate the risks of greenwashing.

Currently, the private sector finances US\$35 billion into nature-positive investments, which is 140 times smaller than the US\$5 trillion directed toward nature-negative investments.³⁵ Investment toward nature-based solutions must be upscaled significantly to tackle the biodiversity loss and climate change challenges.

Insurers can play a critical role in scaling capital flows to facilitate the radical transformation required to achieve a truly resilient nature-positive economy. This section explores the concept of 'nature-positive insurance' and what this could mean for Australian insurers.

What is nature-positive insurance?

The insurance sector, which is uniquely positioned at the intersection of risk managers, insurers and investors, has a major role to play in facilitating the nature-positive transition. The United Nations Environment Programme's Finance Initiative (UNEP FI) Principles for Sustainable Insurance (PSI) defines nature-positive insurance as:

"Risk management and insurance strategies, approaches, practices, products, services and solutions that address nature-related dependencies, impacts, risks and opportunities in order to value, conserve, restore and wisely use biodiversity and ecosystem services; and to promote economic, social and environmental sustainability. It aims to actively contribute to achieving the mission of the Kunming-Montreal Global Biodiversity Framework to halt and reverse nature loss by 2030, and its vision of a world living in harmony with nature by 2050." 36

The goal behind nature-positive insurance is two-fold:

- Addressing risk exposure by avoiding harmful impacts on nature; and
- Contributing toward protecting and restoring nature, and building resilience, through underwriting and investment activities.

Nature-positive insurance will see a growth in business models and strategies to effectively integrate nature considerations into risk management, underwriting and investment processes. Conducting active stewardship with customers to promote sustainable practices will also be critical.

Offsetting residual impacts associated with underwriting will likely become a crucial part of an insurer's long-term nature-positive strategy. Some sectors that insurers underwrite provide essential services but can cause environmental disruption and lack feasible technological alternatives to avoid negative impacts entirely (e.g., critical mineral mining).

^{34.} Ermgassen, S. et al. 2022. Are corporate biodiversity commitments consistent with delivering 'nature-positive' outcomes? A review of 'nature-positive' definitions, company progress and challenges. Journal of Cleaner Production. 379.

^{35.} UN Environment Programme. 2023. State of Finance for Nature 2023.

^{36.} UN Environment Programme Finance Initiative. 2023. Nature-Positive Insurance: Evolving Thinking and Practices.

With that said, nature-positive insurance can go beyond just offsetting; insurers can actively engage in driving the transition towards more sustainable business models in the sectors they serve and adopt the mitigation hierarchy principles. The mitigation hierarchy is a prioritisation framework prompting companies to consider options to avoid and reduce before offsetting. Near-term actions prioritise building nature-related resilience, scaling capital flows toward nature-positive outcomes and mitigating harmful impacts as much as possible before relying on offsets. Nature-positive underwriting policies seek to align with credible nature-positive sector roadmaps, such as those under development or endorsed by the World Business Council for Sustainable Development.³⁷ Actions and opportunities for Australian insurers to facilitate a resilient nature-positive transition is discussed in more detail below.

What does this mean for Australian insurers?

The nature-positive transition represents a

transformative shift toward an economy that not only aims to reduce harm on nature but actively contributes to its restoration. For Australian insurers, this transition will usher in both challenges and opportunities. Australia could receive significant economic benefits if decisive action is taken to become a nature-positive regenerative economy, lifting national income by AU\$47 billion by 2050.38 Insurers setting nature-positive commitments can take steps to both reduce the impacts of their operations, underwriting and investment activities, whilst simultaneously facilitating the flow of capital and efforts toward protecting and restoring nature. In the Australian context, it will also be particularly important for insurers to play a role in building community resilience to natural hazards and supporting the growth of emerging sustainable industries and nature markets. Halting and reversing nature loss is critical for building resilience across underwriting and investment portfolios.

Examples of steps different types of insurers can take to advance nature-positive insurance are below:

- For home and property insurers, this involves integrating nature data into climate modelling projections to support adequate pricing and reserves for future claims. Insurers underwriting this sector are uniquely positioned to encourage nature-positive behaviours amongst policyholders by premium discounts for using resilient and sustainable building materials, which have the dual benefit of building resilience and promoting sustainability.
- Motor insurers can adjust their strategies to remain in step with nature-positive goals. With the global push towards low- and zero-emission vehicles, insurers can continue to revise their offerings to favour electric and hybrid vehicles through discounted premiums or comprehensive coverage for new technologies, such as battery systems. By doing so, insurers can accelerate the transition to cleaner transportation and decrease the industry's environmental footprint.
- General and commercial insurers face a more complex task as they cover a range businesses and industries that can exert considerable pressure on nature. The path forward involves both reducing exposure to high-impact sectors and diverting the flow of capital toward businesses that operate sustainably. Insurance products might be structured to incentivise risk reduction and the adoption of nature-positive practices across priority, high-impact sectors such as, mining, agriculture, energy, construction, or manufacturing.

Australian insurers across all types stand to benefit from engaging in active dialogue with policymakers, businesses, and stakeholders to promote a policy and regulatory environment that supports nature-positive outcomes. Advocacy for improved land-use planning and management to protect people, homes and businesses from natural hazards; investment in nature-based solutions; and the integration of nature considerations into financial decision-making across the economy will be crucial for fostering the systemic change necessary for a nature-positive future.

The following section explores key nature opportunities for the Australian insurance sector in more detail, including international case study examples.

^{37.} World Business Council for Sustainable Development. 2022. Roadmaps to Nature Positive.

^{38.} Herd, E. & Hatfield-Dodds, S. 2023. Creating a nature-positive advantage: Assessing the outlook for Australia in a net zero world.

Nature opportunities for Australian insurers

There are a growing number of opportunities available to Australian insurers to advance nature-positive insurance as evidenced by case studies of insurance products and insurer practices that align with nature-positive principles.

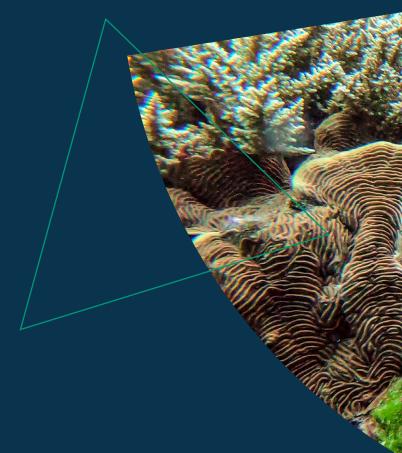
Overview

Beyond inherent environmental benefits, protecting and restoring nature presents strategic opportunities for insurers. Insurers taking action to protect, restore and transparently disclose on nature can differentiate themselves from competitors and be better equipped to tap into new markets, attract and retain top talent, and build the resilience of their asset and investment portfolios.

In this section, we explore the following nature opportunities for insurers in further detail:

- nature-based solutions to reduce asset exposure to physical climate and nature risks;
- innovative insurance products to protect nature;
- incentivising nature-positive behaviours amongst customers;
- integrating nature into risk management and underwriting practices; and
- public-private partnerships for managing nature risks and keeping insurance affordable.

We have drawn upon Australian and international case study examples across underwriting and investment to demonstrate the real-world financial benefits of these opportunities, where possible. These case studies demonstrate the compelling business case for insurers to act on opportunities to advance nature-positive insurance, including reduced asset risk exposure, enhanced reputational capital and access to new markets through innovative insurance products.



- 39. Department of Climate Change, Energy, the Environment and Water. (2021). Australia State of the Environment 2021.
- 40. Stockholm Environment Institute. 2023. *Urban wetlands restoration builds resilience and liveability*; and City of Gold Coast. 2024. *Mangrove Research Collaboration Project*.
- 41. Ibid.
- 42. Bowman, D.M.J.S., Williamson, G.J., Johnston, F.H., Bowman, J.W., Murphy, B.P., Roos, C.I., Trauernicht, C., Rostron, J. & Prior, L.D. 2022, Population collapse of a Gondwanan conifer follows the loss of Indigenous fire regimes in a northern Australian savanna. Sci Rep, 12(9081).

Nature-based solutions to protect insured assets

Nature-based solutions can be designed to leverage natural systems and processes to build the resilience of insured assets to extreme weather events and other natural hazards. This in turn can contribute to reducing cost exposure from natural hazard damage, reducing underlying risk, which can assist in moderating premiums. For example:

- Wetlands and mangroves can absorb and store carbon, stabilise riverine soils, and absorb floodwaters;³⁹
- Urban wetlands can help shield city residents and properties from the adverse effects of flooding by reducing the coverage of impermeable surfaces
- Healthy coral reefs, coastlines and blue carbon habitats can serve as physical barriers against storm surges and sea-level rise, mitigating the risks of coastal erosion;⁴¹ and
- Ecological forestry and First Nations land management practices, such as cultural burning, can help build resilience to bushfires and improve the effectiveness of public land management.⁴²



Nature opportunities for Australian insurers continued

Advocating, facilitating or directly investing in nature-based solutions that conserve, protect, and enhance ecosystem services can bolster resilience to natural hazards, benefitting both insurers and policyholders. This could be particularly beneficial for general insurers and policyholders located in regions with high exposure to natural hazards. For instance, restoring waterways and wetlands in flood prone regions such as South-East Queensland and Northern NSW could provide better protections for communities and households, reducing underlying risk, which can assist in moderating premiums when coupled with other resilience solutions. Initiatives aimed at restoring coastal ecosystems could help to reduce risk exposure for the 39,000 Australian homes at risk of coastal erosion. Notably, almost 40% of these vulnerable homes are in Queensland.43 This is also an issue in major capital cities and is not an issue exclusive to regional areas.

Insurers will lack ownership of natural assets and public lands. Public-private partnerships can therefore be particularly important in the successful planning and implementation of many nature-based solutions. For instance, Australian coastal and riverine areas are primarily owned and managed by Federal and State Governments as Crown Lands. However, investing in and insuring nature-based solutions that reduce risk exposure for underwriting assets can provide a compelling business case for insurers (Case Study 1).

The Australian Nature Repair Market could facilitate opportunities for insurers to invest in nature-based solutions that mitigate risk exposure and enhance native biodiversity. Biodiversity certificates could provide insurers a credible tool for assessing and disclosing the biodiversity outcomes of their investments into nature-based solutions.

Case Study 1



TNC and Munich Re US Missouri River Levee Setback Project⁴⁴

Climate change is resulting in more frequent and severe weather events; contributing to insurance becoming less accessible in areas that are exposed to natural hazards such as floods. This is clearly demonstrated by the increasing trend of extreme weather and flooding events experienced within Australia.

In response to the 2019 Mississippi flooding event, which resulted in \$20 billion in damages, The Nature Conservancy (TNC) and multiple partners set out to undertake the large-scale levee setback project. The project sought to move the levee further inland from the river, widening the path for river flow and reducing water levels; thereby reducing the probability of levee failure and flooding events. In addition to reducing flood risks, levee setbacks can provide added benefits for biodiversity by expanding natural habitats and improving water quality.

TNC and Munich Re undertook modelling to quantify how the levee setback project could lower flood risk and insurance premiums over time. Munich Re measured the benefits of flood mitigation resulting from reduced water levels and likelihood of catastrophic flooding. The study found annual flood insurance premiums could be reduced by more than 55% for assets directly benefitting from the levee setback project.

The study also explored how nature-based approaches to flood risk could be funded through insurance savings. The study found that potential insurance savings from the levee setback project, when combined with the community-based catastrophe insurance, would be sufficient to fund the land acquisition associated with the levee setback.

The outcomes demonstrate how combining a nature-based approach to reducing flood risk can reduce the cost of insurance. If a portion of those savings are captured, they could be used to fund and enable nature-based solutions for asset protection; saving costs for both insurers and impacted households.

Case Study 2



Ecological Forestry's role in improving insurance affordability and reducing bushfire risks⁴⁵

Climate change is intensifying bushfire risks across Australia; creating hotter, drier conditions that fuel more frequent and severe wildfires. Ecological forestry practices, such as prescribed or cultural burning and strategic thinning of trees, can mitigate bushfire risks by reducing fuel loads and enhancing ecosystem resilience. This in turn can reduce risk exposure for insured assets.

In California, 2.7 million people live in very high wildfire hazard severity zones. TNC's Wildfire Resilience Insurance study investigated how insurance premiums could be affected by reducing wildfire risk through ecological forestry practices. The study focused on quantifying this impact using insurance modelling and structuring techniques. The project also explored how insurance premium savings might be used to fund or finance additional investments in ecological forestry in national and other forest lands.

TNC's study demonstrated ecological forestry can be accounted for in insurance modelling and pricing, finding substantial savings in aggregated annual home insurance premiums of 41%, or \$21 million, for a representative residential portfolio of more than 80,000 homes.

The findings underscore the substantial financial benefits of ecological forestry in mitigating bushfire risks. By embracing ecological forestry, stakeholders can create a resilient landscape. Australian insurers should seek to engage Government, First Nations land managers and private landholders to adopt similar practices to not only achieve insurance savings, but better protects communities and vulnerable ecosystems.



- 43. DCCEEW. 2009. Climate Change Risks to Australia's Coast: A First Pass National Assessment.
- 44. Munich Re and The Nature Conservancy. 2021. Nature's remedy: Improving flood resilience through community insurance and nature-based mitigation.
- 45. The Nature Conservancy & Willis Towers Watson. 2021. Wildfire Resilience Insurance: Quantifying the Risk Reduction of Ecological Forestry with Insurance.

Innovative insurance products to scale nature financing

Innovative insurance products are emerging internationally to:

- help protect and restore valuable natural assets;
- de-risk investments for buyers and sellers of carbon credits; and
- leverage existing commercial products from banks and investors.

Parametric insurance policies are a type of insurance that pays a pre-agreed amount when certain trigger conditions are met (Case Study 3). These triggers can be specific environmental conditions or events. The key advantage of parametric insurance is that it provides a quick payout in the event of a trigger, without the need for traditional loss adjusting and claim handling procedures, meaning funds can be deployed immediately for damage mitigation or restoration measures.

Carbon credit insurance is an emerging opportunity to de-risk investments and participation in carbon markets (Case Study 4). Insurance solutions can provide buyers and sellers with financial compensation in the event of unexpected post-issuance risks. These products can help build trust in carbon markets, mitigating barriers to entry, and offer a promising blueprint that could be replicated in biodiversity certificate markets.

These types of insurance products are immensely relevant in the Australian context. Coral reefs, being a significant part of the national heritage and providing substantial economic value through tourism, need protection from increasing climate change and nature-related risks. Parametric insurance can offer quick and timely financial support for reef restoration activities following a significant rise in sea temperatures or tropical cyclones, which are known to damage reefs.

EY analysis finds that nature based, land sector credits will make a significant contribution to Australian businesses achieving their net zero emissions reduction targets, whilst simultaneously supporting habitat restoration. He Insurers could help build confidence in investing in these types of projects and capitalise on their growing demand over the coming decades. Similarly, demand for Australian biodiversity certificates through the Nature Repair Market could benefit from insurance coverage and provide opportunities for insurers to facilitate the flow of capital into projects that deliver positive biodiversity outcomes beyond carbon sequestration.

Insurers can also work with banks and investors to underwrite nature-based solutions incentivised through banking and investment practices, such as sustainability linked-loans that contribute to positive nature-related outcomes.⁴⁷ Insurers could also work with institutions such as the Clean Energy Finance Corporation to assist in structuring novel financing opportunities between banks and insurers, particularly when lending or underwriting innovative practices and technologies, to accelerate the commercial viability of such approaches.⁴⁸

For Australian insurers, these innovative insurance products offer opportunities to tap into new markets aligned with nature-positive insurance principles and move beyond traditional insurance policies.

 $^{46.} Herd, E.\ \&\ Hat field-Dodds, S.\ 2023.\ Creating\ a\ nature-positive\ advantage:\ Assessing\ the\ outlook\ for\ Australia\ in\ a\ net\ zero\ world.$

^{47.} NAB News. 2023. NAB helps farmers report on sustainability of Agri Green Loans using blockchain.

^{48.} NAB News. 2015. New deal brings energy savings to SMEs and corporates.

^{49.} Scotti, V. 2021. Mexico's Mesoamerican Barrier Reef is now being protected with insurance – here's how; Green Finance Institute. 2021. Quitana Roo Reef Platform.

^{50.} Queensland Government. 2024. Protecting our Great Barrier Reef.

^{51.} Ross, D. 2024. Insurance set to boost carbon credit market.

Case Study 3



Leveraging parametric insurance to fund coral reef restoration⁴⁹

Coral reefs in Australia are invaluable ecosystems that host a diverse array of biodiversity; underpin the economy through tourism and fishing; and offer significant cultural value for local communities. The Great Barrier Reef alone contributes billions to the national economy annually.⁵⁰

Globally, coral reefs face increasing threats from climate change, including extreme heat-induced coral bleaching and damages from cyclones.

In 2018, Swiss Re launched the world's first insurance solution to preserve a natural ecosystem, using a parametric insurance model to help build the resilience of Mexico's Quintana Roo Reef. Under the insurance policy, claim payments are triggered when hurricane wind speeds reach certain levels, indicating a severe storm has occurred.

The policy is purchased by the State Government of Quintana Roo's Coastal Zone Management Trust. Swiss Re and the State Government leverage existing tax structures, with a portion of the federal taxes coastal property owners pay being passed on to the Trust.

The trigger was reached in 2020 when Category 3 Hurricane Delta hit the covered area. A US\$800,000 payment was released enabling action on the damaged area within a week. This funding facilitated the stabilisation of 1200 large coral colonies that were displaced from storm, and the transplantation of 9000 broken coral fragments. The coverage enabled immediate recovery and restoration action by the local communities, building the resilience of the reef and the local economy it supports.

This innovative insurance model for coral reef protection offers a promising blueprint for safeguarding Australia's own coral reefs. Adopting similar strategies in Australia could significantly enhance the resilience of its coral reefs or other valuable nature assets against the escalating threats of nature loss and climate change. Simultaneously, this approach would offer insurers an opportunity to diversify their portfolio, access new markets and demonstrate their active role in conserving nature.

Case Study 4



De-risking investments: Carbon Credit Insurance⁵¹

There is growing demand for carbon certificates because of regulatory changes requiring Australia's largest companies to report their carbon emissions profile. In response, Sydney-based trading house BetaCarbon and insurer Oka are introducing a first-of-its-kind carbon credit insurance solution to reduce the risk of investments into carbon credits.

The insurance policy will pay out a dollar value of the credit in the event a project fails or is destroyed; allowing companies to reinvest insurance payouts into new carbon credits if necessary. This helps de-risk purchasing decisions for buyers and encourage greater flow of capital into carbon sequestration projects.

Carbon credit insurance is set to boost confidence by protecting financial investments, safeguards reputations, and promote a more reliable voluntary carbon market. Similar approaches could be applied to biodiversity certificates, such as those issued under the Australian Nature Repair Market. This could de-risk investments and encourage more capital to support projects that protect and restore nature.

Incentivising behaviours that reduce negative impacts and facilitate the nature-positive transition

Insurers have a unique opportunity to incentivise nature-positive behaviours among policyholders and investees through their dual role as investors and underwriters.

As significant institutional investors, insurers can use their power to influence the companies they invest in. 52 This can be done through active engagement and stewardship activities. 53 For example, insurers can engage with company boards on their nature-positive strategies, encourage transparent reporting on nature-related financial risks and opportunities, vote in favour of shareholder resolutions that support the nature-positive transition or work with investment manager mandates to embed consideration of nature related issues.

Insurers can also affect change through their core business of underwriting. Insurers may incentivise policyholders to implement risk-reducing measures or adopt sustainable practices by adjusting premiums and conditions accordingly. Examples of underwriting policies that could encourage policyholders to reduce their impacts on nature and/or adopt sustainable practices include:

- Green home insurance: Providing homeowners with insurance discounts to encourage them to build with sustainably sourced materials and/or consume less energy.
- Usage-based car insurance: Pricing motor insurance based on how much policyholders drive to encourage them to drive less, which both reduces emissions and the risk of incidents.
- Sustainable technology or fuel-efficiency discounts: Premium discounts offered to policyholders that drive electric vehicles.
- Green building insurance: Designing underwriting products to encourage property developers to build buildings that meet credible sustainability certifications.
- Sustainability-linked insurance premiums:
 Providing businesses with premium discounts for undertaking activities that reduce their exposure to physical nature risk and/or negative impacts on nature, similar to how sustainability linked-loans are structured.

 Directors & Officers liability insurance: Enhancing traditional Directors and Officers insurance by offering protection against legal actions arising from accusations of greenwashing. The intent is to counteract 'greenhushing' challenges and encourage companies to communicate their nature efforts, whilst still upholding accountability around misleading claims.

These actions can nudge companies in the right direction, influencing them to value, conserve, restore and sustainably use ecosystem services. In this way, insurers can be proactive stewards in both their investment and underwriting activities and facilitate the transition toward a nature-positive economy.

Integrating nature-related resilience into risk management and underwriting practices

To advance nature-positive insurance, insurers must first thoroughly understand their own nature-related impacts, dependencies, risks and opportunities, and then embed these considerations into their risk management and underwriting practices.

The companies that insurers invest in and underwrite can both depend upon nature and contribute toward biodiversity loss, pollution, or habitat destruction. Insurers can better manage the associated risks and opportunities by integrating nature considerations into their underwriting and investment decision-making processes (Case Study 5).

Reliable insurance coverage is often required before investors commit funds and private companies commence construction for infrastructure projects. This means insurers that appropriately consider the nature-related risks associated with insurers assets can play a key role in safeguarding critical biodiversity and habitats. For example, setting stricter underwriting criteria for projects that pose significant risks to nature, or requiring project developers to include environmental safeguards or implementing nature conservation measures.

Case Study 5



Embedding nature in underwriting and risk management practices: Swiss Re's ESG Risk Framework⁵⁴

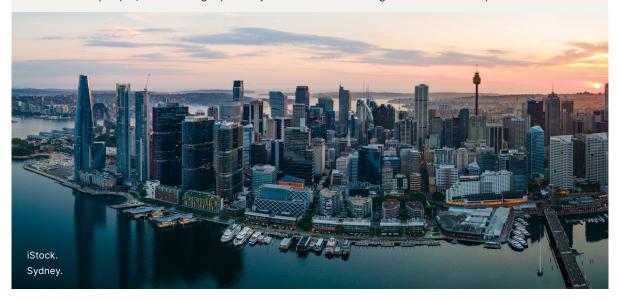
Insurers are pivotal in project development; their role underwriting risk provides the security investors and lenders require to commit funds to large-scale ventures. Australian insurers play an integral part in major energy projects, positioning them at the forefront of the energy sector net-zero transition.

While renewable energy projects are crucial for reducing carbon emissions, they are not always inherently nature positive. For instance, hydropower dams can have significant negative impacts on river systems, and the people that depend on them. Internationally, they are the primary cause of river connectivity loss and a major contributor to the 84% decline in freshwater species populations since 1970.

Failure to consider the environmental and social implications of renewable energy projects can put people and nature at risk, as well impact an organisation's commercial and reputational standing. To address and balance these complex considerations, Swiss Re has developed an ESG Risk Framework. The framework provides an advanced risk management tool to identify, mitigate and address sustainability risks associated with insurance and investment transactions. It includes specific policies and criteria for sensitive sectors, such as hydropower dams.

Nature-related considerations are built into the framework. For instance, Swiss Re does not provide support to hydropower projects operating in protected areas or World Heritage Sites. Swiss Re also does not provide support if the project could violate the rights of local communities, such as the right of free, prior, and informed consent of indigenous peoples.

There is an opportunity for Australian insurers to incorporate nature-related considerations into their underwriting and risk management practices. Such frameworks could not only enhance the sustainability of large-scale project developments but also safeguard biodiversity and the rights of First Nations people, establishing a pathway to net zero that is aligned with a nature-positive future.



52. CBUS Super, Stewardship Statement.

53. Principles for Responsible Investment. N.d. Australian Policy.

54. WWF. 2022. Insuring a Nature-Positive World.

Public-Private Partnerships

Managing nature-related risks presents an opportunity for collaboration between the public and private insurance sectors. Insurance plays a critical role in facilitating community resilience and recovery. The cost of uninsured damages resulting from natural hazards must be picked up by impacted Australians, communities, businesses, and the Government. Conversely, not offering insurance conflicts with insurer's fundamental business model and can create reputational damage for insurers. It is therefore in the best interest of both the public and private sector to avoid insurability challenges.

Government is responsible for establishing regulatory measures and land use planning laws, which lay the foundation for avoiding and mitigating nature-related risks. It is imperative for Federal, State and Local Government to consider the exposure of developments to natural hazards that pose material risks to Australian people, homes, and businesses, and how this exposure could change overtime in response to climate change and nature loss. Ultimately, appropriate land use planning provides the foundation for viable insurance solutions.

Australian insurers can engage with government and advocate for policy reforms that improve resilience against natural hazards and support the nature-positive transition. This includes advocating for improved land-use planning laws and mandates for prioritising the use of resilient materials and design standards that better protect people, homes and businesses from natural hazards and reduce long-term insurance risks and costs. Insurers also have opportunities to advocate for enhanced regulations to protect nature as well as collaborate on fostering a financial system that values nature through consultations on the Australian Sustainable Finance Taxonomy and Sustainable Finance Strategy.

Notably, the Australian Government is already actively engaging insurers as part of its Hazards Insurance Partnership (HIP) and strategic insurance projects. ⁵⁵ Through this initiative, the Government is seeking to enable more targeted investment in disaster risk mitigation to put downward pressure on insurance premiums; including public-private co-investment into natural hazard risk reduction.

Another potential collaborative opportunity lies in the improvement of natural hazard mapping quality and consistency. For instance, accurate and detailed flood maps are essential in enabling insurers to precisely assess risk and price premiums accordingly. Government has access to environmental data that can assist insurers with modelling natural hazard risk. Greater certainty can reduce underlying risk which in turn can assist in moderating risking premiums, and insurance sector modelling capabilities could support effective land use and development planning.

Community-based catastrophe insurance (CBCI) models are receiving increasing interest internationally as a response to addressing rising natural hazard risks and policy coverage gaps.56 These are a single disaster insurance policy arranged by a local government or other public entity, which secures coverage for a group of properties. CBCI can enhance the financial resilience of communities and support the availability of affordable coverage. This can be achieved by communities leveraging collective buying power and securing volume discounts to drive down insurance premiums. Premium collection could integrate into existing systems, tying payments to property taxes, offering a streamlined and equitable distribution of premiums. CBCI could be particularly important in high flood or bushfire regions of Australia.

As previously highlighted in Case Study 3, there are emerging case studies of governments also partnering with insurers to purchase parametric insurance policies to protect natural assets, and by extension, the communities that rely on them (Case Study 3).

^{55.} Nature Research Custom Media & The University of Queensland Australia. 2022. *Pooling risk to insure against natural disaster.*56. Bernhardt, A., Kousky, C., Read, A. & Sykes, C. 2021, *Community Based Catastrophe Insurance: A model for closing the disaster protection gap.*57. Legacy Programme. 2022. *CCRI Climate Leaders Roundtable – "Now is the time to act and invest".*

Case Study 6



Partnering with government to build resilience to extreme weather events⁵⁷

Jamaica is highly exposed to extreme weather events such as hurricanes, tropical storms, and flooding. As such, building the resilience of communities and major infrastructure assets is a key priority for the country to mitigate the impacts of climate change.

In 2022, Jamaica became the first country to complete development of the System Risk Assessment Tool (J-SRAT), designed by Oxford University in collaboration with the Jamaican Government, the UK's Foreign Commonwealth and Development Office, and Coalition for Climate Resilient Investment (CCRI). CCRI is a global coalition aiming to 'mainstream' climate risks in investment decision-making, comprising over 120 institutional investors, banks, rating agencies, engineering firms and insurance companies.

J-SRAT is a tool designed to help identify the

country's major infrastructure networks (i.e. energy, water and transport) that are most vulnerable to climate risk. Development was led by Oxford University. Climate risk modellers partner with the public and private sector to obtain national key input data, test assumptions and develop the tool.

The pilot project aims to deliver a comprehensive solution for the government of Jamaica to be able to assess, manage and finance resilient infrastructure investment needs. Understanding priority areas most vulnerable to climate risk will help the Jamaican Government make better informed financial decisions on the future location and investment for critical infrastructure.



Where can insurers start

Insurers are uniquely positioned to influence the economic shift toward a nature-positive future. Integrating nature-positive principles into business strategy, insurance service offerings and stakeholder engagement could help facilitate the changes necessary to tackle nature loss and promote a more resilient future.

Insurers can take several practical steps to start integrating resilient nature-positive insurance principles into their operations. There is an emerging body of research from across the global insurance sector, aimed at identifying practical steps insurers can take to facilitate the nature-positive transition. This includes work such as the *UNEP Finance Initiative's Nature-Positive Insurance: Evolving Thinking and Practices*⁵⁸ report and research undertaken by the Association of British Insurers (ABI). ⁵⁹ Some of these steps are adapted and summarised below, and categorised into three overarching themes:



58. UN Environment Programme Finance Initiative. 2023. Nature-Positive Insurance: Evolving Thinking and Practices.

59. Association of British Insurers. 2023. A Guide to Nature Action: Securing our natural world.

Some insurers may want to take different steps and adopt other approaches that will make more sense to their company. What is important is to choose an approach and start the work that leads to embedding nature-positive insurance principles and facilitating the inevitable transition.

As new approaches emerge, the most appropriate approach may evolve – but starting now is important. The ICA and its members are preparing for the role of the insurance industry in enabling a nature-positive future.



Embed nature into business strategy

Insurers can start embedding nature-positive insurance principles into their business strategy by taking the following steps:

- Identify and assess exposure to nature-related dependencies, impacts, risks and opportunities across their entire value chain, including the highest likely risk and/or impact sectors they underwrite and invest in.
- Formulate and agree on an organisational position statement for nature to inform and guide internal strategy and engagements with external stakeholders.
- Identify and develop a strategy to address current data and skills gaps for identifying and assessing nature-related issues.
- Map and integrate nature considerations into business governance, strategy, risk management and financial decision-making processes to effectively address material risks and opportunities emerging from the nature-positive transition.
- Begin transparently reporting on nature-related issues in alignment with relevant disclosure frameworks, such as the TNFD.



Integrate nature into products and services

Insurers can facilitate the protection and restoration of nature through the products and services they offer, including:

- Develop incentives to encourage home and contents, building and small business insurance policyholders to adopt sustainable practices and/or reduce their exposure to natural hazards.
- Offer sustainable claims options for repairs and replacements to facilitate a more circular economy.
- Establish underwriting criteria and guidelines for the most nature-negative activities within investment and underwriting portfolios to incentivise existing and potential clients to adopt sustainable practices.
- Develop innovative commercial insurance products and solutions that help protect valuable natural assets, improve coverage for vulnerable communities, and/or facilitate the flow of capital toward nature-positive outcomes.



Engage and collaborate with key stakeholders

The nature-positive transition will require co-ordinated efforts across all parts of the economy. Insurers can play a pivotal role in advancing the nature-positive transition through the following activities:

- Engage clients and investees on the need for greater transparency on nature-related impacts, dependencies, risks and opportunities, to encourage mainstreaming of nature-related financial disclosures.
- Actively engage policy makers for a sciencebased and socially just nature-positive transition.
- Collaborate and advocate for development of standardised metrics for measuring and reporting nature impacts associated with underwriting activities; building on the Partnership for Biodiversity Accounting Financials (PBAF) standard.⁶⁰
- Collaborate and advocate for best practice guidelines and/or nature target setting framework for insurers (lessons can be learned from existing nature target setting frameworks for asset managers, asset owners, and banking).⁶¹

^{60.} Partnership for Biodiversity Accounting Financial. 2024. *A Biodiversity Accounting standard for the Financial Industry*. 61. United Nations Environment Programme Finance Initiative. 2023. *PRB Nature Target Setting Guidance*.

Appendix A – Glossary

Term	Definition
Biodiversity	An essential characteristic of nature that is critical to maintaining the quality, resilience and quantity of ecosystem assets and the provision of ecosystem services that business and society rely upon
Ecosystems	An important part of environmental assets comprising the dynamic complex of plants, animals and microorganisms, interacting with each other and their nonliving environment
Ecosystem services	The flows from nature which result in a provisioning of services, regulation and maintenance of services and cultural services. Examples include pest control, pollination services and soil quality
Environmental assets	The naturally occurring living and non-living components of the Earth (e.g., forests, wetlands, coral reefs and agricultural areas)
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999
EU	European Union
GDP	Gross Domestic Product
Global Biodiversity Framework	2022 Kunming-Montreal Global Biodiversity Framework, agreed at the 15th meeting of the Conference of Parties to the UN Convention on Biological Diversity is now available as document CBD/COP/15/L25
LCA	Lifecycle assessment
Natural capital	The stock of renewable and non-renewable natural resources that combine to yield a flow of benefits to people
Nature	The natural world, with an emphasis on the diversity of living organisms (including people) and their interactions among themselves and with their environment
PBAF	Partnership for Biodiversity Accounting Financials
Physical risks	Risks that are a direct result of an organisation's dependencies on nature. They arise from nature changes which reduce the availability or quality of the ecosystem services on which a company depends
SBTN	Science-Based Targets for Nature
Systemic risks	Risks arising from the breakdown of the entire system, rather than the failure of individual parts. They arise from economy-wide dependencies and impacts on nature that affect critical natural systems or financial stability at the portfolio or system level
TNFD	Taskforce for Nature-related Financial Disclosures
Transition risks	Risks that result from a misalignment between an organisations strategy and management and the changing landscape in which it operates. They arise from changes in the legal, societal and economic expectations of a company's impact on nature

Appendix B - References

Actuaries Institute. 2023. *Home Insurance Affordability Update*. Available at: https://actuaries.asn.au/docs/thought-leadership-reports/home-insurance-affordability-update.pdf.pdf?sfvrsn=7737bcf4_4

Actuaries Institute. 2023. *Home Insurance Affordability Update*. Available at: https://actuaries.asn.au/docs/thought-leadership-reports/home-insurance-affordability-update.pdf.pdf?sfvrsn=7737bcf4_4

Association of British Insurers. 2023. *A Guide to Nature Action: Securing our natural world*. Available at: https://www.abi.org.uk/globalassets/files/publications/public/climate-change/abi_guide-to-action-on-nature-full-report-july-23.pdf

Australian Bureau of Statistics. 2023. *Australian Industry*. Available at: https://www.abs.gov.au/statistics/industry/industry-overview/australian-industry/latest-release

Australian Conservation Foundation. 2022. *The nature-based economy: How Australia's prosperity depends on nature*. Available at: https://assets.nationbuilder.com/auscon/pages/20826/attachments/original/1665019942/2208_Nature_NatureDependencyReport_FINAL-2.pdf?1665019942

Australian Prudential Regulation Authority. 2022. *Quarterly general insurance performance statistics – highlights*. Available at: https://www.apra.gov.au/sites/default/files/2023-03/Quarterly%20general%20insurance%20performance%20statistics%20highlights%20December%202022.pdf

Australian Prudential Regulation Authority. 2023. *Quarterly general insurance performance statistics – highlights*. Available at: https://www.apra.gov.au/sites/default/files/2023-03/Quarterly%20general%20insurance%20performance%20statistics%20highlights%20December%202022.pdf

Australian Sustainable Finance Taxonomy. 2024. *Public consultation*. Available at: https://www.asfi.org.au/taxonomy-public-consultation

Australian Treasury. 2023. Sustainable Finance Strategy. Available at: https://treasury.gov.au/consultation/c2023-456756

Australian Treasury. 2024. New legislation to strengthen financial system and boost investment in cleaner cheaper energy. Available at: https://ministers.treasury.gov.au/ministers/jim-chalmers-2022/media-releases/new-legislation-strengthen-financial-system-and-boost

Azizuddin, K. 2024. *Chinese exchanges endorse double materiality in market-first disclosure*. Available at: https://www.responsible-investor.com/chinese-exchanges-endorse-double-materiality-in-market-first-disclosure-rules/

Bernhardt, A., Kousky, C., Read, A. & Sykes, C. 2021, Community Based Catastrophe Insurance: A model for closing the disaster protection gap. Available at: https://www.marshmclennan.com/content/dam/mmc-web/insights/publications/2021/february/Community--Based--Catastrophe--Insurance--(Final).pdf

Bowman, D.M.J.S., Williamson, G.J., Johnston, F.H., Bowman, J.W., Murphy, B.P., Roos, C.I., Trauernicht, C., Rostron, J. & Prior, L.D. 2022, *Population collapse of a Gondwanan conifer follows the loss of Indigenous fire regimes in a northern Australian savanna*. Sci Rep, 12(9081). Available at https://www.nature.com/articles/s41598-022-12946-3

CBUS Super. 2023. Stewardship Statement. Available at: https://www.cbussuper.com.au/content/dam/cbus/files/governance/reporting/Stewardship-Statement.pdf

City of Gold Coast. 2024. Mangrove Research Collaboration Project. Available at: https://www.goldcoast.qld.gov.au/Services/Projects-works/Mangrove-Research-Collaboration-Project

Convention on Biological Diversity. 2022. COP15: Nations Adopt Four Goals, 23 Targets for 2030 In Landmark UN Biodiversity Agreement. Available at: https://www.cbd.int/article/cop15-cbd-press-release-final-19dec2022

Convention on Biological Diversity. 2022. *Nations Adopt Four Goals, 23 Targets for 2030 In Landmark UN Biodiversity Agreement*. Available at: https://prod.drupal.www.infra.cbd.int/sites/default/files/2022-12/221219-CBD-PressRelease-COP15-Final_0.pdf?_gl=1*t5wm5v*_ga*MTcxMDE1MDk3OS4xNjkxOTkzMzAy*_ga_7S1TPRE7F5*MTcxMzc1MDU1MS44LjAuMTcxMzc1MDU1Ni41NS4wLjA

Appendix B - References continued

DCCEEW. 2009. Climate Change Risks to Australia's Coast: A First Pass National Assessment. Available at: https://www.agriculture.gov.au/sites/default/files/documents/cc-risks-full-report.pdf

Department of Climate Change, Energy, the Environment and Water. (2021). *Australia State of the Environment 2021*. Available at: https://soe.dcceew.gov.au/

Díaz, S. et al. 2015. *The IPBES Conceptual Framework – connecting nature and people*. Current Opinion in Environmental Sustainability, 14: 1–16.

Ermgassen, S. et al. 2022. Are corporate biodiversity commitments consistent with delivering 'nature-positive' outcomes? A review of 'nature-positive' definitions, company progress and challenges. Journal of Cleaner Production. 379.

European Parliament. 2023. *Environmental crimes: deal on new offences and reinforced sanctions*. Available at: https://www.europarl.europa.eu/news/en/press-room/20230929IPR06108/environmental-crimes-deal-on-new-offences-and-reinforced-sanctions

Faull, N. 2022., *Can we insure the natural world?* Available at: https://www.marsh.com/uk/risks/climate-change-sustainability/insights/can-we-insure-natural-world.html

Gambetta, G. 2023. TNFD forming working group on nature in transition plans. Available at: https://www.responsible-investor.com/tnfd-forming-working-group-on-nature-in-transition-plans/

Green Finance Institute. 2021. *Quitana Roo Reef Platform*. Available at: https://www.greenfinanceinstitute.com/qfihive/case-studies/quintana-roo-reef-protection-parametric-insurance/

Herd, E. & Hatfield-Dodds, S. 2023. *Creating a nature-positive advantage: Assessing the outlook for Australia in a net zero world*. Available at: https://www.ey.com/en_au/sustainability/how-can-the-net-zero-transition-create-a-nature-positive-advantage

ICA. 2023. *Insurance Catastrophe Resilience Report 2022–23*. Available at: https://insurancecouncil.com.au/wp-content/uploads/2023/09/20897_ICA_Cat-Report_Print-2023_RGB_Final_Spreads.pdf

IFRS. 2024. ISSB to commence research projects about risks and opportunities related to nature and human capital. Available at: https://www.ifrs.org/news-and-events/news/2024/04/issb-commence-research-projects-risks-opportunities-nature-human-capital/

Legacy Programme. 2022. CCRI Climate Leaders Roundtable – "Now is the time to act and invest". Available at: https://resilientinvestment.org/ccri-climate-leaders-roundtable-now-is-the-time-to-act-and-invest/

Munich Re and The Nature Conservancy. 2021. *Nature's remedy: Improving flood resilience through community insurance and nature-based mitigation*. Available at: https://www.nature.org/content/dam/tnc/nature/en/documents/ImprovingFloodResilienceThroughInsuranceandNatureBasedMitigation_21NOV01.pdf

NAB News. 2015. New deal brings energy savings to SMEs and corporates. Available at: https://news.nab.com.au/news/new-deal-brings-energy-savings-to-smes-and-corporates/

NAB News. 2023. NAB helps farmers report on sustainability of Agri Green Loans using blockchain. Available at: https://news.nab.com.au/news/nab-helps-farmers-report-on-sustainability-of-agri-green-loans-using-blockchain/

National Emergency Management Agency. 2024. *Helping to address rising insurance premiums*. Available at: https://nema.gov.au/programs/hazards-insurance-partnership

Nature Research Custom Media & The University of Queensland Australia. 2022. *Pooling risk to insure against natural disaster*. Available at: https://www.nature.com/articles/d42473-021-00566-w

Partnership for Biodiversity Accounting Financial. 2024. A Biodiversity Accounting standard for the Financial Industry. Available at: https://www.pbafqlobal.com/standard

Principles for Responsible Investment. N.d. *Australian Policy*. Available at: https://www.unpri.org/policy/australia-policy

Queensland Government. 2024. *Protecting our Great Barrier Reef*. Available at: https://www.des.qld.gov.au/great-barrier-reef/protecting

Ross, D. 2024. *Insurance set to boost carbon credit market*. Available at: https://www.theaustralian.com. au/business/financial-services/betacarbonbacked-clima-to-launch-insurancebacked-carbon-credits-in-australia/news-story/4fa8638fb05e9f0035a101b70e6aa3db

Scotti, V. 2021. Mexico's Mesoamerican Barrier Reef is now being protected with insurance – here's how. Available at: https://www.weforum.org/agenda/2021/09/mesoamerican-coral-reef-mexico-using-insurance-to-protect-ecosystem/

Stockholm Environment Institute. 2023. *Urban wetlands restoration builds resilience and liveability*. Available at: https://www.sei.org/perspectives/urban-wetlands-restoration-builds-resilience-and-liveability/

The Nature Conservancy & Willis Towers Watson. 2021. *Wildfire Resilience Insurance: Quantifying the Risk Reduction of Ecological Forestry with Insurance*. Available at: https://www.nature.org/content/dam/tnc/nature/en/documents/FINALwildfireresilienceinsurance6.27.21.pdf

TNFD. 2023. Recommendations of the Taskforce on Nature-related Financial Disclosures. Available at: https://tnfd.global/wp-content/uploads/2023/08/Recommendations_of_the_Taskforce_on_Nature-related_Financial_Disclosures_September_2023.pdf?v=1695118661

UN Environment Programme Finance Initiative. 2023. *Nature-Positive Insurance: Evolving Thinking and Practices*. Available at: https://www.unepfi.org/wordpress/wp-content/uploads/2023/09/Nature-Positive-Insurance-Briefing-Paper.pdf

UN Environment Programme. 2023. State of Finance for Nature 2023. Available at: https://www.unep.org/resources/state-finance-nature-2023United Nations Development Program and Sustainable Insurance Forum. 2021. Nature-Related Risks in the Global Insurance Sector. https://sustainableinsuranceforum.org/wp-content/uploads/2021/11/UN_Nature-Related-Risks-in-the-Global-Insurance-Sector_v9.pdf

United Nations Environment Programme Finance Initiative. 2023. PRB Nature Target Setting Guidance. Available at: https://www.unepfi.org/industries/banking/nature-target-setting-guidance/

WEF. 2020. Nature risk rising: why the crisis engulfing nature matters for business and the economy. Available at: https://www.weforum.org/publications/nature-risk-rising-why-the-crisis-engulfing-nature-matters-for-business-and-the-economy/

WEF. 2024. The Global Risks Report. Available at: https://www.weforum.org/publications/global-risks-report-2024/

World Business Council for Sustainable Development. 2022. *Roadmaps to Nature Positive*. Available at: https://www.wbcsd.org/contentwbc/download/15430/225143/1

WWF. 2022. *Insuring a Nature-Positive World*. Available at: https://wwfint.awsassets.panda.org/downloads/insuring_a_nature_positive_future___an_insurer_s_guide_to_hydropower__wwf_low_res_.pdf

