

Nature and the Insurance Industry: Taking action towards a nature-positive economy

Maryam Golnaraghi, Director Climate Change & Environment, The Geneva Association

Adrien Mellot, former Climate Change & Environment Intern, The Geneva Association

The sustainability of natural capital is vital for socio-economic development and prosperity. Yet, nature has systematically been considered an externality – undervalued and mispriced by the public and private sectors. Since 2019, however, a number of flagship reports have presented clear and concrete evidence of the large-scale impacts of the pollution and depletion of natural capital due to human activity, as well as the significant implications this has for people and businesses. This is driving considerations around large-scale nature degradation and biodiversity loss into core business decision-making.

Assessing and valuing biodiversity and ecosystem services is complex and still under development. However, the most comprehensive estimates suggest that nature provides a value of USD 125–140 trillion per year.¹ Over 50% of global GDP is dependent on natural capital and ecosystem services, but many of those ecosystems are close to tipping points, beyond which they may be unrecoverable.

Nature and climate change

Climate change and large-scale nature loss are interlinked. The protection, improved management and restoration of ecosystems can simultaneously increase climate resilience (climate change adaptation) and help to sequester carbon (climate change mitigation). At the same time, the deployment of new technological solutions to transition energy and other sectors to achieve net-zero targets could have profound impacts on nature. As the world expedites the large-scale deployment of these new technologies, their environmental footprint should therefore be assessed and managed with a full life cycle view.

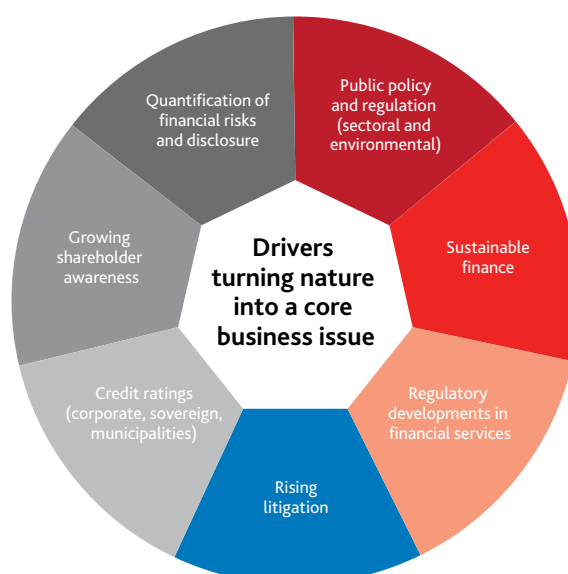
Nature-based solutions should be considered an integral part of the design, construction, operation and maintenance of critical infrastructure systems to reduce extreme weather risks and increase resilience. As we look ahead, the public and private sectors need to invest in sustainable infrastructure systems (e.g. energy, transport, water management). There is also a need to mobilise capital for upgrading existing infrastructure systems as well as investing in new ones.

Reducing greenhouse gas (GHG) emissions cannot be done at the expense of nature loss and other environmental impacts. Ultimately, addressing climate change and nature and biodiversity loss together with a system-based approach will be necessary if either is to be solved.

Factors driving nature-related considerations into core business decision-making

A number of external factors are transforming nature-related risks and opportunities into a core business issue: 1) the evolving public policy and regulatory landscape, 2) efforts to quantify the financial risks associated with nature loss by the Task Force for Nature Related Financial Disclosure (TNFD), 3) sustainable finance frameworks, 4) financial regulatory bodies' increasing attention to the risks of large-scale nature loss, 5) rising litigation, 6) the incorporation of nature-related issues in corporate, sovereign and municipal credit ratings and 7) growing investor and shareholder awareness (Figure 1).

Figure 1: Factors driving nature-related considerations into core business decision-making



Source: The Geneva Association

¹ Organisation for Economic Co-operation and Development (OECD) 2019.

The insurance industry and nature-related risks and opportunities

The speed, scale and scope of nature and biodiversity loss present new risks and opportunities for re/insurers. The Chief Risk Officer (CRO) Forum identifies nature and biodiversity loss as an emerging, 'medium category' environmental risk for re/insurers, with significant potential impacts expected within the next five years.²

These risks could impact re/insurers in a variety of ways:

1. Underwriting

For P&C re/insurers, pricing and insuring risks may eventually be an issue. Nature risks directly impact their business models by modifying the resilience of their customers to extreme events. Rising large-scale nature loss and pollution impact commercial lines, with potential, rising litigation against corporations in these sectors. For life insurers, there is growing evidence of the link between nature-based risks and air pollution, food security and malnutrition, the increased transmission of vector-borne diseases and even pandemics.

2. Investments

The financial performance of assets is directly impacted by physical climate risks, transition risks, litigation risks and the ability to transition to a nature-positive economy.³ This is particularly relevant for life insurers given the long-term characteristic of their investments.

3. Real assets and operations

Physical risks to assets, buildings and staff may increase due to large-scale nature loss in specific regions.

4. Risk assessment, modelling and pricing capabilities

Effectively assessing and quantifying nature-based risks requires forward-looking tools, which are currently lacking. The industry is, however, supporting initiatives to develop such tools,⁴ and re/insurers can draw on their years of experience in NatCat (natural catastrophe) modelling.⁵



² CRO Forum 2022.

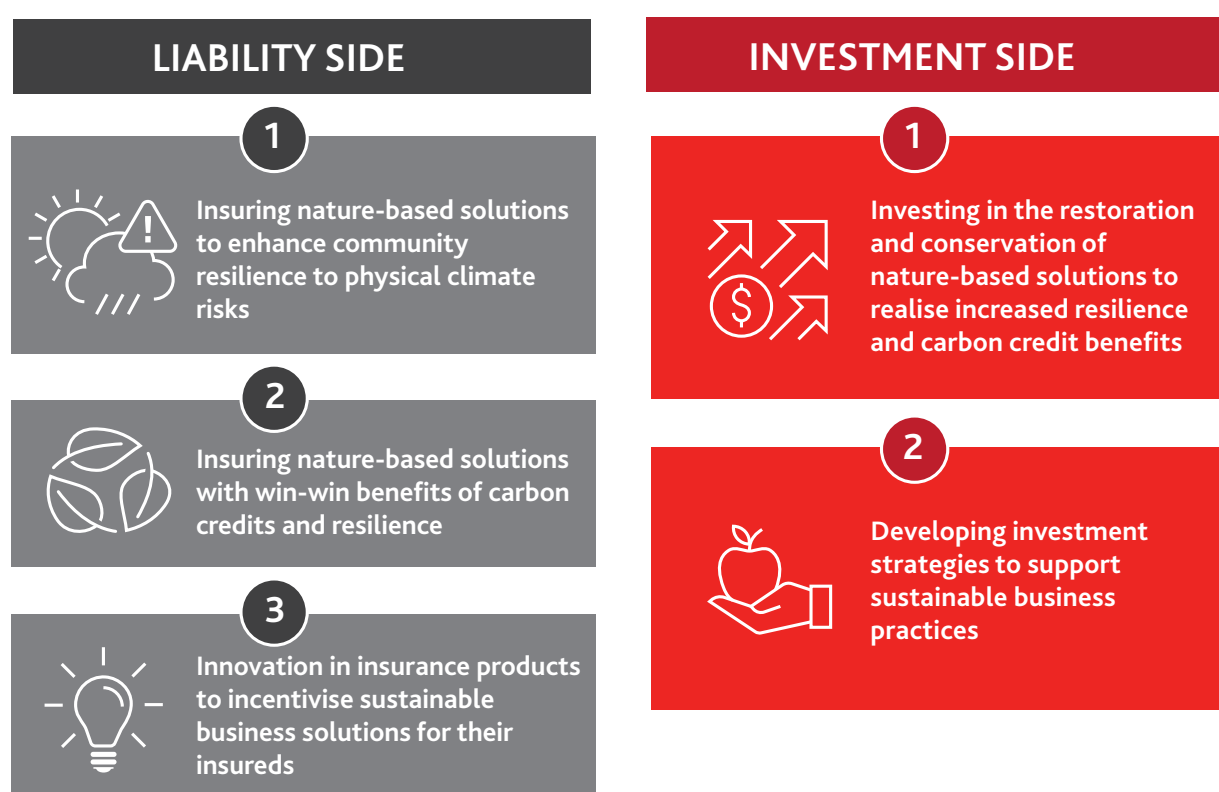
³ MNHM and SCOR.

⁴ The Geneva Association 2021a,b, 2022 Authors: Maryam Golnaraghi et al.

⁵ The Geneva Association 2018. Author: Maryam Golnaraghi.

Acting now can reduce current and future exposure to nature-related risks and lead to business opportunities; delaying action could exacerbate the risks to a point of no return. Re/insurers can encourage behavioural changes for the preservation, restoration and management of nature, and support their insureds and investees to develop more resilient, GHG-neutral and nature-positive business models. They also have an opportunity to increase the resilience of their clients through underwriting and investing in nature-based solutions (Figure 2).

Figure 2: Opportunities for re/insurers to support a nature-positive transition



Source: The Geneva Association

Recommendations

While some re/insurers have already started to assess, understand and quantify the risks and opportunities related to nature-based systems, the industry can go further by helping to shape more nature-positive behaviour. We recommend that companies:

Explore, identify and assess the materiality of nature-related risks in their business models. Re/insurers can engage in global efforts such as the TNFD to identify methodologies, share lessons learned and help expedite convergence towards best practices.

Further explore the links between nature-based solutions and climate change adaptation and mitigation measures. Addressing nature and biodiversity loss together should be an integral part of companies' net-zero transition strategies.

Raise awareness among insureds and investees, as well as internally among the board, executive management and employees, about the scale of nature-related risks and biodiversity loss to incentivise more sustainable behaviours and business models.

Explore opportunities for new product and service innovation to mitigate nature loss and its impacts. It is important to consider the interactions, feedback loops and competing interests of various industries around nature and climate change, and engage with other sectors such as banking, IT and digital communications to assess and price these risks.

Consider the environmental risks associated with producing new climate technologies for decarbonisation when underwriting and investing in their large-scale deployment.



Identify and potentially realise investment opportunities in nature-based solutions that would lead to increased resilience and carbon credit benefits for clients, as well as their own business models.

Recognise the shortfalls in the availability and accessibility of data and tools to quantify the risks and benefits tied to nature-based systems. Consider industry-level collaboration and engagement with regulatory bodies to identify major data gaps and expedite the development of forward-looking methodologies for nature-related risk assessment.

References

CRO Forum. 2022. *Emerging Risk Initiative – Major trends and emerging risk radar – 2022 update*. <https://www.thecroforum.org/2022/08/04/emerging-risk-initiative-major-trends-and-emerging-risk-radar-2022-update/>

MNHM and SCOR. 2021. *Biodiversity and Re/insurance: An ecosystem at risk*. <https://hal.archives-ouvertes.fr/hal-03213905/document>

OECD. 2019. *Biodiversity: Finance and the economic and business case for action. Report prepared for the G7 Environment Ministers' Meeting*. <https://www.oecd.org/environment/resources/biodiversity/G7-report-Biodiversity-Finance-and-the-Economic-and-Business-Case-for-Action.pdf>

The Geneva Association. 2018. *Climate Change and the Insurance Industry: Taking Actions as Risk Managers and Investors*. Author: Maryam Golnaraghi. January. <https://www.genevaassociation.org/research-topics/extreme-eventsand-climate-risk/climate-change-and-insurance-industrytaking-action>

The Geneva Association. 2021a. *Climate Change Risk Assessment for the Insurance Industry – A holistic framing of decisions and other key considerations for both sides of the balance sheet*. Authors: Maryam Golnaraghi and the GA Task Force on Climate Risk Assessment. February. https://www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public/climate_risk_web_final_250221.pdf

The Geneva Association. 2021b. *Insurance Industry Perspectives on Regulatory Approaches to Climate Risk Assessment*. Authors: Maryam Golnaraghi et al. June. https://www.genevaassociation.org/sites/default/files/research-topics-document-type/pdf_public/climate_regulation_web.pdf

The Geneva Association. 2022. *Anchoring Climate Change Risk Assessment in Core Business Decisions in Insurance*. Authors: Maryam Golnaraghi and the GA Task Force on Climate Risk Assessment. September. <https://www.genevaassociation.org/research-topics/climate-change-and-emerging-environmental-topics/climate-change-risk-3-report>