



## Examples of Nature-based Solutions (NbS) and the role of insurance in these

(last updated 15 January 2026)

Name (source)	Short description	Role of insurance (and the financial sector more broadly)
Nature's remedy: Improving flood resilience through community insurance and nature-based mitigation (Munich Re and TNC, 2021)	The report explores the potential benefits of combining nature-based flood mitigation with a community-based flood insurance product (in which the insurance product would be sold to an entire community or subset of a community)	Insurer quantified how widening the path for the Missouri river to flow would reduce flood risk, and how insurance premiums could decrease over time
Innovative post-hurricane protection for endangered Mesoamerican Coral Reef goes live with insurance carrier confirmed (MAR Fund et al., 2021)	Coral reefs bring benefits to local communities and resilience to their economies. This initiative works with local conservation organisations and government agencies to put in place plans for early response and to train and equip specialist "brigades" to execute immediate reef-saving activities	Insurer provides fast-paying parametric hurricane insurance to enable restoration of reefs with protected status. The cover was arranged by a parametric broking specialist firm. Support for the insurance placement was provided by a fund set up through a public-private partnership
Supporting the Prince Hendrik Sand dyke project (Swiss Re, 2019)	Prince Hendrik Sand Dyke on Texel Island, the Netherlands, needed to adapt to rising sea levels, after having experienced heavy wave action that resulted in it no longer meeting safety standards	Insurance supported the 2019 construction-related risks of a nature-based solution to protect the island and the habitat of the adjacent World Heritage site against rising sea levels.
Insurance underwriting with nature: how mangroves can transform the climate strategy of companies, cities and re/insurers (Earth Security, 2022)	Report sets out a simplified quantitative model and approach to illustrate the protection value of mangroves against tropical cyclones in the Philippines	Re/insurers could factor the protection value of mangroves into risk underwriting (itself acting as an incentive for their protection)
Aon and Revalue Nature to Accelerate Global Decarbonization Efforts (Aon and Revalue Nature, 2022)	A collaboration between a professional services firm that offers a range of risk-mitigation products and a developer of nature-based solutions, to reduce relevant risks associated with carbon offset transactions. This collaboration, in the context of the Voluntary Carbon	So as to attract potential investors, the insurer de-risks assets from damage and destruction by natural perils and other pertinent risks. These assets, restored/protected forests and mangroves (in Africa, Latin America and Asia-Pacific), underlie future carbon





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	Market (VCM), aims to deliver climate mitigation benefits, improve biodiversity and benefit local communities	credits
First-Ever Coral Reef Insurance Policy in the US (The Nature Conservancy, 2022)	Natural disasters represent a major risk to coral reefs. State Senate passed a resolution in 2021 requesting a reef insurance evaluation, which was followed by a 2020 Bank of America-supported feasibility study	A parametric insurance that provides funding for rapid coral reef repair and restoration across Hawai'i immediately following hurricane or tropical storm damage
Parametric solution protects Belize's blue bond debt servicing from climate disasters (WTW, 2022)	Natural disasters are disproportionately affecting the economies of small coastal and island nations such as Belize - disaster response is costly and public debt servicing (along with sovereign credit rating) can be negatively affected. As Belize's economy strongly relies on natural assets for tourism and fisheries, a blue bond was developed aiming to reduce the country's debt burden as well as conserve its marine ecosystems	A risk transfer insurance solution to cover regular debt servicing needs after severe hurricane events (in which case the payment is waived). The solution is linked to a debt restructuring bond set up by a non-governmental conservation organisation, the bond being purchased by investors via an investment bank
Insurance to cover liability for prescribed burns (in Linnerooth-Bayer et al., 2023; p. 65)	Prescribed burns aimed at reducing the spread of wildfire carry unintentional risks to lives and properties	A liability insurance was developed aimed at qualified practitioners planning or conducting prescribed burns across much of the US
Insuring mangrove forests to increase resilience and generate carbon credit revenue streams (in Linnerooth-Bayer et al., 2023; p. 63)	Mangroves are threatened ecosystems that are important for biodiversity and climate resilience of coastal communities, as well as serving as carbon sinks. An insurance product is being developed to strengthen mangrove conservation and restoration through a social enterprise project (Restoration Insurance Service Company, RISCO)	The product would cover the loss and damage to mangroves from unexpected natural and weather-related events that result in reduced carbon benefits. Premiums would be partly paid with carbon credits and geared mainly towards public clients
Nature-related financial opportunity use case: The role of mangroves, coral reefs and seagrass beds in supporting and protecting near-shore fisheries in Bolinao, the Philippines (CISL and Howden, 2024)	Use case explores how insurance can help protect natural assets (mangroves, coral reefs and seagrass beds) that support near-shore fisheries, and more broadly the long-term sustainability of the region in terms of tourism and coastal storm protection	Insurance for designated marine protected areas ; insurance for ocean warming events leading to coral bleaching ; insurance for storm damage to coral reefs, mangroves, seagrass beds ; incentivising resilience building through insurance premium reduction





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Nature-related financial opportunity use case: Debt-for-nature swap supported by credit insurance for marine conservation (CISL and MS Amlin, 2024)	Use case describes the roles of financial institutions in a scheme in which Ecuador exchanged debt restructuring for commitments to preserve its marine ecosystems	Reinsurance coverage ; coordination of the issuance of a 'blue' bond ; investment in sovereign debt ; provision of guarantees and insurance
Quintana Roo Reef Protection (Green Finance Institute, 2024)	The policy aims to protect the Yucatan Coastline in Mexico, and hence the reefs from storm damage, and by extension the populations that depend on them	A parametric insurance policy (payment triggered when hurricane wind speeds reach a pre-agreed level)
Through the Wilderness: The Role of Insurance in Unlocking Nature Finance (Howden and Pollination, 2024)	Report sets out priority interventions of the insurance sector to help develop solutions that can reduce barriers to investments into nature	Risk transfer to mobilise capital; Protecting natural assets; Enabling trading in environmental markets; Governance (e.g. incentivise clients' performance, integrate nature into underwriting criteria, etc)
Asset protection with mangrove restoration (in Howden et al., 2024a; p. 21)	A wind power infrastructure in Pakistan was at risk of high maintenance costs due to environmental hazards such as tidal erosion, and storm surges and typhoons. These risks were worsened by the degradation of local mangroves, less able to act as a natural barrier	A hybrid solution integrating mangrove restoration with asset protection insurance. Saved maintenance costs justified reduced insurance premiums, whilst mangrove restoration was estimated to generate increased local fishing revenues for the community
First carbon credits warranty and indemnity insurance policy (Howden et al., 2024b)	The demand for high-quality credits is strong. Insurance can help increase the integrity and value of the carbon credits, by demonstrating to buyers that their credits have met the highest levels of environmental, social and financial diligence, and are backed by an insurance policy that guarantees their provenance	Insurance cover on the sale of carbon credits for the reforestation project of degraded forest lands. The policy aims to improve trust in the quality of carbon credits and has the potential to unlock a wave of capital into the carbon market
Harnessing England's Biodiversity Net Gain legislation to amplify urban flood risk management (Sherry and Kassian, 2024)	Biodiversity Net Gain (BNG) is an approach to development and land management that aims to leave the natural environment in a measurably better state than before. BNG enables nature, and nature is good for flood risk management, e.g. through the creation of urban green spaces, parks and wetlands, and the restoration of natural waterways	The insurance sector can play an important role by developing innovative insurance solutions designed to protect biodiversity and its maintenance/restoration over time – essentially de-risking investments in BNG/natural flood risk management
Kita insures Marex's investment in mangrove carbon	Supported by an investor group, the Global Mangrove	Insurer provides a Carbon Purchase Protection Cover to





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credit project (Kita, 2024)	Trust restores and conserves coastal mangrove ecosystems, from which carbon credits are derived	the project's carbon credits, so as to add a layer of security, thereby acting as a stamp of confidence on the quality of the project itself
New insurance product to support ecological restoration (SCOR, 2024)	Ecological restoration aims to support the integrity and resilience of ecosystems, which provide vital ecosystem services to the planet and its people. However, there can be reluctance to finance restoration initiatives due to the inherent unpredictable and dynamic nature of ecosystems, which can lead to project failure	This insurance product <a href="#">de-risks ecological restoration by protecting project outcomes against defined perils</a> . It allows governments, financiers, and developers to replace large budget contingencies with a five-year cover that safeguards restoration plans if extreme events or damage disrupt recovery, making projects more investable.
Mass timber: Insuring the future of sustainable construction (Zurich, 2024) (and Jenan et al., 2024 for a review of the role of insurance in scaling mass timber construction)	Building with mass timber (a family of engineered wood components) could reduce the carbon footprint of a large commercial building by up to 40 percent – provided the timber is sourced from sustainable forestry. Many building code regulators and insurance companies remain skeptical of its safety with regards to fire-resistance properties	New insurance policies, one providing coverage for the construction risks of one-off mass timber buildings, and the other for multiple mass timber buildings via a Master Builders Risk programme. This helped the insurer become the market-leading commercial insurer of mass timber projects
Wildfire resilience insurance (WTW and TNC, 2025)	A pioneering wildfire resilience insurance that rewards ecological forest management, such as tree thinning and prescribed burns, by accounting for reduced fire risk. Applied in Tahoe Donner, California, this approach demonstrates how proactive land stewardship can improve forest health while lowering wildfire exposure	The insurance product structured by Willis offers \$2.5 million in wildfire resilience coverage with significantly reduced premiums and deductibles by integrating nature-based risk reduction. By making coverage more available and affordable in high-risk areas, it aligns financial incentives with mitigation practices and encourages broader insurer support for climate-resilient communities
Insurance product to support biodiversity net gain (Howden, 2025)	This insurance supports biodiversity net gain at the Highlands Rewilding Bunloit project in Scotland by protecting and restoring habitats impacted by biodiversity loss. Designed around natural capital rather than just carbon credits, it helps landowners attract	The policy provides comprehensive cover that backs biodiversity and carbon units, covering the cost of substitute units if contractual obligations are not met. By reducing financial risk and unlocking capital for nature-positive initiatives, the insurance helps scale





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	investment and deliver long-term ecological benefits while giving buyers confidence in biodiversity and carbon units	biodiversity markets, supports sustainable development, and enables compliance with biodiversity net gain requirements under UK law



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