



## Briefing for Insurance Sector

**Authors:** Elena Lopez-Gunn, Audrey Vion Loisel, Mia Ebeltoft, Silke Nauta, Merijn Hougee, Anna Bérczi-Siket, Kirsty Blackstock

### **Mainstreaming aquatic restoration using Nature-based Solutions: supporting transformation**

A collaborative approach with key economic sectors is essential to enable the H2020 MERLIN project to promote systemic transformative change. We co-develop transformation strategies with different sectors to **mainstream restoration as a Nature-based Solution (NbS)**. Working with nature at landscape scale can contribute to the EU Green Deal objectives (climate resilience, improved biodiversity, zero pollution, sustainable food systems, health, and wellbeing).

NbS has been defined by the International Union for Conservation of Nature (IUCN) as “actions to **protect, sustainably manage, and restore** natural or modified ecosystems, that address **societal challenges** effectively and adaptively, simultaneously providing **human well-being and biodiversity benefits**”.<sup>1</sup>

This briefing focuses on the **Insurance Sector**. It summarises MERLIN’s understanding of the sector’s current connection with rivers and wetlands, and how Nature-based Solutions (NbS) are viewed within the sector at the start of the collaboration. The briefing proposes how MERLIN (for more information visit [www.project-merlin.eu](http://www.project-merlin.eu)) can support the Insurance Sector to implement NbS.

### **How can MERLIN support transformation?**

The Insurance Sector can play a crucial role in responding to Europe’s Green Deal objectives, particularly climate action. Transformation whereby NbS becomes the new normal will only happen through multiple actions involving government, the private sector, and citizens. MERLIN will support this through understanding why, how, and where the Insurance Sector is already making or can lead positive changes, sharing good practice between European countries and exploring how NbS could help overcome some of the challenges faced by the sector. The briefing is based on a range of insights from individuals actively engaged in the Insurance Sector from a series of Round Table Discussions (RTDs), questionnaires, structured interviews, and a desktop review of relevant literature. We are very grateful for the insights shared to date, which have helped us understand the different roles and the main potential entry points for transformation. The synthesis provided in this briefing reflects the views of the authors and does not imply consensus within our developing **Community of Practice**. Our Community of Practice concerns EU and Member State level policy and commercial actors of the Insurance Sector who share a common interest in improving their practices better through regular interaction and sharing information.



## Relationship of the Insurance Sector with freshwater restoration and NbS

### Brief description of the sector

The Insurance Sector provides risk management products and services through insurance contracts. The basic concept of insurance is that one party, the insurer, guarantees payments for potential future events (like floods or injuries) that would have produced a financial loss for the policyholder. Meanwhile, another party, the insured or the policyholder, pays an insurance premium to the insurer in exchange for that protection on that potential future risk occurrence. There are two main types of insurance: life and non-life. Life and health insurance companies focus on legacy planning and replacing human capital value, and medical costs. Non-life covers property, casualty, or accident insurance and is aimed at replacing the value of homes, cars, or valuables. For example, (direct) non-life insurance companies compensate the insured/policyholder for losses (as defined in the insurance contract) due to damage to the insured assets, such as private and commercial buildings/homes, cars etc. MERLIN for example will look at damages incurred by water related events such as floods or droughts. The Insurance Sector also offers insurance to cover losses due to business interruption, 3<sup>rd</sup> party liability and personal injury. The contract (and premium) is normally limited for a one-year-period but can be multi-year if agreed between the policyholder and the insurance company.

### How the sector currently understands NbS

The Insurance Sector is more aware of the term NbS than just 2-3 years ago, when a sector survey confirmed it was not a well-known or understood concept.<sup>2</sup> Since then, the sector has become much more aware and active in this area, partly due to the work of global insurance (and financial) forums like the new Task force on Nature-related Financial Disclosure (TNFD)<sup>3</sup> and United Nations Environment Programme Finance Initiative's (UNEPFI) work on Principles for Sustainable Insurance (PSI)<sup>4</sup>. The TNFD is actively seeking methods to assess impacts, exposure, and dependencies on ecosystem services and to create a common framework to report and set targets on these areas. The TNFD categorises the nature-related financial risks to be either physical, transitional or systemic.<sup>5</sup> In addition, policy developments like the EU Sustainable Finance Action Plan and the EU Taxonomy for sustainable activities have developed a classification system, establishing a list of environmentally sustainable economic activities which include Insurance as a sector. Some insurance companies have actively participated in research projects on NbS and/or are in the process of developing new products and services around NbS. However, the awareness and activities are quite variable within the Insurance Sector, although the topic is rapidly being considered higher in the agenda, particularly with the larger more global (direct) insurance companies and reinsurance companies.

There are areas where additional technical work is needed. Most insurance companies do not have a full understanding of the technical NbS solutions available to reduce physical climate risk, and to understand the link between physical risk and NbS. This means that new information and data on these linkages would help the insurance industry to include these solutions into their risk assessment process, tools, models and compensation systems. NbS could be used for risk reduction and as adaptation measures to climate change to reduce exposure and vulnerability to increased hazard extreme events, which would contribute to making sure assets remain insurable.

The industry needs a widely accepted framework to describe and quantify the risk reduction effectiveness of nature-based solutions. Such data is crucial to enable insurance companies to use them in their day-to-day business. The sharing of new data will require cooperation between the public and private (insurance) sector with e.g. the pooling of traditional insurance loss data and data from NbS. Making these data more transparent will be useful to both the industry and public decision-makers. Such cooperation is now included in the EU Strategy on Adaptation to Climate Change which will "encourage at the national level a voluntary approach of public private partnerships for the collection and sharing of loss data based on enhanced cooperation with Member States, cities and industry".<sup>6</sup>



To mainstream NbS, the insurance experts recommended to look into (1) how can insurance value and support NbS based on their potential for risk reduction and climate change adaptation, and (2) how can NbS be insured based on the economic and ecological value they provide to facilitate update (e.g. to protect the investment in NbS).

### NbS and their potential for supporting the sector and good examples of NbS for the Insurance Sector

The Insurance Sector is now looking at how to provide new products and services in relation to NBS. For example, in Spain the Spanish Consorcio de Compensación de Seguros has been sharing loss data to help make better investment decisions e.g., on floodplain restoration in a number of river basins. In Norway the state introduced a legal requirement in 2018 in the building and planning act where the preservation, restoration or establishment of nature-based solutions should be considered (such as existing wetlands and natural streams or new green roofs and walls, artificial streams, and pools, etc.). And if other solutions are chosen, reasons must be given as to why nature-based solutions have not been chosen. In addition, there are examples of the collaboration between public and private actors for both small and large scale NbS. In Holland, Achmea, a Dutch insurance cooperative and mutual holding company, is promoting the installation of green roofs in homes to reduce damages from heavy rainfall.<sup>7</sup> At the global level, Swiss Re has also collaborated with the State Government of Quintana Roo's Coastal Zone Management Trust in the Mexican state of Quintana Roo to create an NbS-insurance product to help protect and restore coastal reef damaged from storms or hurricanes, since they provide flood protection during such events.<sup>8</sup> Another best practice is the MarFund<sup>9</sup> where Axa Climate is providing parametric hurricane insurance to four key coral reefs on the Caribbean coast. This means in case of a hurricane crossing the protected areas, a payment is immediately made to carry out emergency response activities. With this type of parametric insurance, the aim is to react very quickly and limit the damage on living ecosystems. One of our **MERLIN** cases, the **Basque country MERLIN case study**, looks at the hydro-geomorphological restoration of the Deba River, and includes benefits such as decreased risk of flooding. This is an example of how further work between our MERLIN case studies and the sector will be explored to identify synergies and opportunities. Our MERLIN cases are related to large area restoration on regional and transnational, rural, peri urban and urban locations. These involve transition in land use and floodplain reconnection, targeting flood risk and drought reduction, as well as enhanced compliance with the Birds and Habitats Directive and Water Framework Directive, as well as recreation enhancement. There is also an opportunity thanks to the current draft law on Nature Restoration.



### Challenges and Opportunities of the Insurance Sector

The Insurance Sector consists of non-life, life and reinsurance companies. These therefore provide very different insurance products and are also subject to different regulations. MERLIN has therefore developed a conceptual model that will consider these different types of insurance, especially **non-life** insurance which compensates for damages to assets.

Below we present some initial results taken from interviews and a Roundtable with insurance experts.

#### Challenges

*From the point of view of policy and regulation:*

- The Insurance Sector is strongly regulated (including on how to calculate the risk.) NbS, nature risk, or nature-related risk, are not terms that are part of, or defined in the insurance regulation (Solvency II directive) in contrast to climate risk.
- Each country has their own insurance regulatory set up (public, public-private, private) which means solutions – and how NbS fit into this system – will need to be tailored to their specific context.



*From the point of view of products and services (including other sectors):*

- The sector does not yet use NbS in traditional non-life insurance products, coverages and pricing. To get there, the risk must be calculated to an adequate, risk-based premium which can be set wherever the insured non-life asset is located (e.g. the house in a floodplain area exposed to flooding). In this case, the incorporation of NbS into risk models, poses important questions on the kind of data needed, and what type of data is available.
- Furthermore, and also particularly relevant for MERLIN, is the case when third parties incorporate NbS into their insurable assets, e.g. Agriculture, Water Supply and Sanitation, or Navigation.

*From the point of view of investment:*

- It is a changing landscape in relation to the Insurance Sector and the consideration of risk reduction measures as part of their role (e.g., river restoration for flood protection). The Insurance Sector can incentivize risk reduction in a number of ways like educational programs, the insurance contract, risk engineering services, risk assessment, data-sharing or on occasions as investors, and through public private projects.
- The Insurance Sector is, however, very aware of the need and urgency to adopt risk reduction measures since otherwise the rise of insurance premiums could lead to affordability issues or even more structural problems like the whole insurability of the system and its long-term viability.
- There is a need for accurate cost benefits analysis of NbS to quantify the various losses and damages, exposure and vulnerability, to better understand the causality between NbS and risk reduction that could catalyse a series of actions like e.g. effective communication with funders of these measures or how to upscale them.

## Opportunities

- The Insurance Sector is more aware of their role in the adoption of NbS: 1) as data collectors and how by sharing insurance loss data, better investments can be made to reduce risk <sup>10, 11</sup>; 2) through the insurance contract incentives that can be created for the uptake of NbS (conditions; public-private partnerships (PPP) with NbS) through the pricing mechanism like e.g., the reduction of price/premium when customers implement NbS.
- The Insurance Sector has an increased interest in better defining what and how NbS can be incorporated into insurance products and services, e.g. to help incentivize investment into NbS for risk prevention or with new products e.g. to insure green assets.
- The Insurance associations can help by advocating for the awareness, sharing of good practice and use of NbS both within their own sector/members, and towards/in cooperation with public decision-makers in both local (municipalities), regional and national governments. Also with EU and international level, e.g. through Insurance Europe and similar organisations, and in cooperation with other relevant enterprises/SMEs, research institutions and NGOs like WWF.
- The current financial regulation Solvency II adopted in 2021 includes the prudential treatment of sustainability risks. The adopted amending regulations require the integration of sustainability risks in the risk management and governance of (re)insurance undertakings. There are some very relevant questions to be further analysed related to MERLIN like “How does this apply to the use of NbS?” or, “How could the EU taxonomy incentivize the insurance industry towards developing new sustainable products with the use of NbS for risk reduction/prevention?”.



## Cooperation (MERLIN & the Insurance Sector)

**A conceptual frame will be developed to explore the different ways that Insurance could engage in restoration.** For example, how to better define the NbS benefits to use in new insurance products or how natural capital itself could be insured. MERLIN will work with the Insurance Sector and aim to:

- First, identify how to better adapt risk models to include NbS benefits – larger insurance companies use natural catastrophe (natcat) models to understand how natural catastrophes can influence their risk (if a loss will occur, and the size/pay out).
- Second, explore new products and services – better understand how NbS can “fit” in traditional insurance products and other new risk-transfer solutions, or in new type parametric insurance which “covers the probability of a predefined event happening instead of indemnifying actual loss incurred”<sup>12</sup>.
- Third, undertake joint advocacy workshops/meetings with the sector through key actors like Insurance Europe and national insurance associations to reflect on the main steps taken to implement current initiatives like PSI and TNFD to assess their biodiversity impact and dependencies.
- Fourth, revise regulatory frameworks to align all instruments – to make it easier to invest in green assets while ensuring access to capital during disasters.

This will allow us to move from a broad understanding of the sector to a more focused and therefore **in-depth engagement to identify the main barriers and the opportunities.**

A number of important cross sectoral issues were identified. First, how insurance can help incentivize other sectors to adopt NbS through their own insurance policies to these sectors and second, a direct connection to the **Agriculture Sector in particular** as a particularly vulnerable sector and opportunities for innovative agricultural insurance schemes<sup>13</sup>. Our policy interviews revealed the need to take a closer look at agriculture to identify examples in this area, as well as to consider farmers as a viable and potential part of the solution.

In addition, the potential to understand better how to finance restoration of freshwater with NbS which is more relevant for the life insurance and reinsurance (investment) sectors since their products include long-term investment. This is an **area of cooperation between the non/life insurance** and the investment world where insurance could help as a de/risking mechanism to attract more investments into e.g. nature conservation or restoration. The non-life Insurance Sector is based on short (one-year) contracts and with a short investment period, thus there is a need to better understand and/or identify the current Solvency II regulations on any potential constraints, or how the changes included in 2021<sup>14</sup> will affect the use of NbS in the Insurance Sector. Private investment/financing of restoration is a fairly new discussion, mainly held within international forums like UNEPFI PSI<sup>4</sup> and TNFD.<sup>3</sup>



## Next Steps

Overall, we are building a Community of Practice to support an understanding of NbS and how we can enable the mainstreaming of NbS in the Insurance Sector; and also how Insurance can work with other sectors.

### Together with participants from the six sectors, in the next year MERLIN will:

- Better understand the EU and international policy framing and the available opportunities and barriers on how current and future policy could enable scaling of restoration and NbS in relation to Insurance.
- Continue to engage with the sector to exchange ideas and develop understanding of their needs, challenges, and opportunities for NbS with a specific focus on some use cases with the MERLIN case studies.

### In the longer term, MERLIN will:

- Identify opportunities for cross sector partnerships by applying a value chain approach.
- Co-develop route maps for transforming the sector's relationship with NbS.
- Provide concrete examples on potential innovative insurance schemes and public private collaboration.

For more information on how we will collaborate with the sectors' representatives or to discuss how you can help MERLIN please contact  
Anna Bérczi-Siket ([Anna.Berczi-siket@wwf.hu](mailto:Anna.Berczi-siket@wwf.hu)) or  
Kirsty Blackstock ([Kirsty.Blackstock@hutton.ac.uk](mailto:Kirsty.Blackstock@hutton.ac.uk)).

For MERLIN Insurance Sector specific questions or queries please contact  
Elena López Gunn ([elopezgunn@icatalist.eu](mailto:elopezgunn@icatalist.eu)) or Audrey Vion Loisel ([avionloisel@icatalist.eu](mailto:avionloisel@icatalist.eu)).

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