



NFM Research Fund

Unlocking Investment from the Insurance Sector into Natural Flood Management



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Introduction

In March 2024 the Green Finance Institute published a report on Financing Natural Flood Management (NFM) that was brought together by a Strategic Working Group of experts from across multiple sectors including finance, eNGOs, land managers, academia, and insurance. Within that report it was highlighted that a major barrier to the expansion of natural flood management (NFM) is the lack of demand for flood risk outcomes from potential private sector buyers. This creates a challenge for NFM projects looking to create sufficient revenue streams to reach financial viability and/or to attract upfront, repayable investment.

Throughout the development of the report, it was often highlighted by many stakeholders that the insurance sector could help fund the delivery of natural flood management, by acting as a potential buyer of reduced flood risk alongside other private sector businesses, given that the increased risk of flooding due to climate change going forward, may increase the payouts required by insurers.

Following on from the report, the Green Finance Institute and the Strategic Working Group worked with insurers to assess the sector's potential role in paying for reduced flood risk through NFM.

After roundtables, workshops, and one-to-one interviews with the insurance sector, however, it is clear that, at present, despite broad acknowledgement of increasing risks going forward, market mechanisms provide no incentive to insurers to pay for reducing flood risk – at least for as long as annual flood risk cover can be offered at affordable premium levels.

That said, insurers are interested in understanding more about NFM and its role as a risk management technique that can deliver a wider range of environmental and social benefits. There are examples of insurers actively supporting NFM projects through Corporate Social Responsibility (CSR) and/or sustainability initiatives, a selection of which are included in the [Case Studies](#) section of this paper.

¹ GFI Hive - Financing Natural Flood Management

Through roundtables and workshops, the collective idea of an NFM Research Fund emerged, which marries the need of NFM project developers for a pool of funding to purchase risk reduction, with the appetite for insurers to pay for greater evidence of NFM for their risk models. Essentially, while the insurance sector may not be able to act as a traditional buyer of derisking, it may be able to play that role using R&D funding.

In summary, the NFM Research Fund would pool capital from the insurance sector which is to be deployed as non-repayable grants into NFM projects, forming part of the revenue stack alongside other private and public sector buyers².

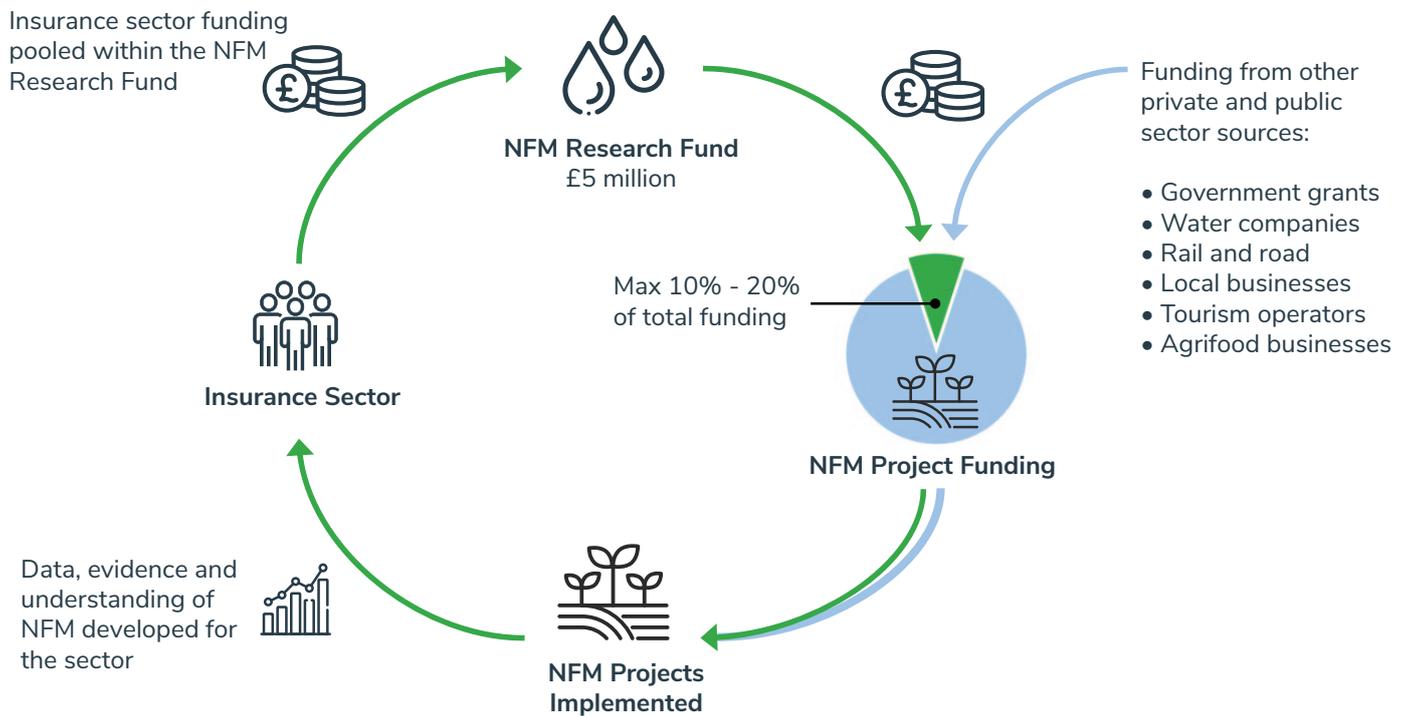


Figure 1: NFM Research Fund

² See Case Studies section of the Financing Natural Flood Management report for examples of how NFM projects are seeking to build a revenue stack from multiple private and public sector buyers.

A lack of commercial incentives

While it has been suggested that the insurance sector may seem an obvious stakeholder to invest in flood risk reduction, and act as a buyer of risk reduction in NFM projects, there is, to date, no real commercial incentive driving the insurance sector to pay for reduced flood risk – specifically through the delivery of NFM projects. In some cases, such as in the case of free riding, there are even disincentives. This lack of incentives is outlined below.

How flood insurance works in the UK

Flood is an industry-wide standard peril that is generally included by default within home insurance policies. Some providers do offer policies with flood cover excluded, but as this is a significant exclusion, the customer must be made fully aware of this in the sales process. These home insurance policies cover the property from damage or loss due to events such as fires, flooding, and storms. Home insurance in the UK is a competitive market, and there are over sixty different home insurance providers available. In addition to analysing many other risk factors, some insurers use flood risk maps based on detailed hydrological models to estimate the risk of potential losses from flooding and use this information to help set insurance premiums for customers through underwriting.

Prior to 2016, properties that had previously flooded, or were in high-risk flood zones, paid an economic premium to insure their home and some policies imposed additional flood excesses. To alleviate this, and to continue to provide affordable and accessible cover against the risk of flooding, the insurance industry and Government came together to create Flood Re. [\[See Appendix for more information on Flood Re\]](#)

Commercial properties are not covered under the Flood Re scheme. Instead, flood cover is typically selected by customers, and is bundled as part of an organisation's property policy (which also includes risks such as fire and freeze). The premium and terms are calculated using the same models deployed for residential risks, although the rates will also reflect the type of business (e.g., office versus shop, versus factory) and structural characteristics (e.g., age, elevation, steel frame, brick-build).

Box 1: Overview of how flood insurance works in the UK.

Increasing premiums

- An increase in flood risk would require insurers to hold more capital against potential future losses, incurring a cost which would need to be recouped. However, in practice, the industry passes some - or all - of the cost of increased flood risk on to the customer through annual premiums. Or, the insurer may choose not to take on the risk at all (or in the case of residential insurance, the insurer may choose to cede the flood risk portion to Flood Re). However, this approach can work only for as long as premiums remain affordable, after which point the risk must be pooled so that less exposed insurers and/or the taxpayer share the burden.

Free riding

- If a single insurer commits funding to an NFM project that will bring flood risk reduction benefits to an area and this reduction in risk is picked up in industry risk-pricing models, other insurers would benefit by being able to price premiums more competitively – without having committed funding to the project. Individual insurers are therefore disincentivised to commit funding to NFM projects. This is often referred to as the ‘free rider’ effect.

The role of Flood Re

- An increase in flood risk to an area due to factors such as climate change, would result in higher-than-average premiums, deductibles, or exclusions by the insurer if the risk is outside their risk appetite. However, if insurers do take on this higher risk, for eligible residential properties they are able to cede the flood risk portion to the Flood Re scheme at a fixed cost. The scheme stops existing in 2039 and has been highly beneficial in making flood insurance available and affordable to those in higher-risk areas. Yet, it does also disincentivise large-scale investment by insurers in risk mitigation measures for these higher risk properties, since risks can be ceded to Flood Re as long as the scheme is in existence. [\[See Appendix for more information on Flood Re\]](#).

Lack of regulation or government drivers

- There is currently no policy or regulatory incentive for the insurance sector, and the private sector as a whole, to contribute funding directly to NFM-based risk reduction projects.
- Government currently sources funds for the public purse from insurers through a tax on general insurance premiums, known as the insurance premium tax (IPT). Revenue from this tax supports many areas of public spending, including healthcare, education, and flood risk (among others). This tax therefore supports the roughly £867 million per year spent on flood defences via national mechanisms. Beyond this tax, there is no imperative for the sector to contribute further to flood risk reduction or specifically to NFM.



NFM Research Fund

Despite the challenges laid out above regarding the insurance sector as a potential buyer of reduced flood risk, there is increasing interest within the sector in furthering the understanding of NFM and the impact it may have on the business.

Insurers collectively benefit from an effective flood risk management (FRM) regime across the UK and see nature-based solutions, including NFM, as a mechanism to achieve risk management goals with considerable co-benefits.

There has been an interest from insurers in building understanding of NFM and its ability to deliver wider benefits for the sector. This includes building an understanding of, and improving the data and evidence for:

- The standard of protection (SoP) that NFM interventions and changes in land management can deliver against certain flood events.
- How the SoP changes based on varying environmental conditions pre- and post-flood and with climate change impacts going forward.
- NFM's ability to deliver wider environmental co-benefits (such as carbon sequestration and biodiversity benefits.) to mainstream this approach as part of national risk management efforts.
- The carbon sequestration potential of NFM interventions for possible future inclusion in decarbonisation pathways.
- The potential for future insurance products tied to nature-based solutions such as parametric insurance and insurance of carbon credit delivery.
- The return-generating ability of NFM projects alongside suitable project governance and delivery structures for potential investment.

Examples of insurance sector initiatives and partnerships around NFM and nature-based solutions more broadly can be found in the [Case Studies](#) section.

In order to provide the above evidence and data, a number of innovations would be required, including the below:

- Collaboration between insurers, government, NFM project developers, and data providers, to identify data requirements and ensure monitoring and/or measurement (see below).
- Investment in scientifically-based research to model and validate the risk reduction and the standard of protection (SoP) that NFM interventions can deliver. (This could be through a combination of techniques spanning in-field evidence captured by in-field systems such as river gauges, and laboratory and computer simulation.)
- Incentivisation for longer-term, outcomes-focussed, real-world pilot projects to identify and verify local versus wider area benefits, and shorter- versus longer-term risk reduction. (These should span a range of real-world situations including rural, semi-rural and urban landscapes.)
- Systematic monitoring of existing NFM schemes across the country to build the evidence base for NFM. This includes shared learnings from the UK Government's £25 million NFM programme³ to understand metrics and measurements used to measure success of the programme.
- Develop an evidence base into the economics of development. For example, how long it takes for the benefits to be realised and the maintenance costs required going forward.
- Develop the understanding of how NFM schemes would operate with any changes to government agri-environment schemes, such as the Sustainable Farming Incentive (SFI).
- A case study-based awareness and education campaign to promote understanding of the potential commercial impact of NFM for the insurance sector.
- Developing workable business models, whereby flood risk management is combined with other outcomes such as carbon sequestration, biodiversity and water quality, to provide multiple revenue streams for multiple benefits, lessening the financial load on any single party.
- Development of a widely available data source for industry risk models to use to keep updated as NFM is implemented across a landscape.

To deliver on the sector's above need for data and requirements for that data, as well as fill the funding gap that NFM projects need as part of their revenue stack, the Working Group therefore identified as a solution, the creation of an insurance sector **NFM Research Fund**.

An insurance sector-led research fund that can deploy funding into NFM projects with the aim of increasing the understanding of the impacts of NFM on the insurance business.

³ <https://engageenvironmentagency.uk.engagementhq.com/natural-flood-management>

How the Research Fund would work

The Fund would act as a mechanism through which funding from the insurance sector could be pooled, to be deployed to eligible NFM projects across the country, alongside other private and public sector buyers.

Private sector funding for NFM projects often comes in the form of payments for ecosystem services from buyers. Examples of these private sector buyers may include (but not limited to): real estate developers, water companies, rail and road companies, local businesses, agrifood businesses, and tourism operators, among others.

The selection of private sector buyers committed to one project creates a 'revenue stack' and each entity will contribute an agreed amount to the project over a specified period of time. Funding from the insurance sector would come in alongside funding from other private sector entities and would help to scale in further private sector investment into NFM projects.

Funding from the insurance sector would be voluntary, and could come from CSR budgets, and/or Research and Development (R&D) budgets in the short-term. The Fund would provide between 10% - 20% of required funding on a match-funded basis, with other private and public sector entities contributing the balance.

Projects must implement monitoring, reporting and verification (MRV) requirements co-designed by industry practitioners across the flooding, land use, environmental, regulatory and insurance sectors, to further the understanding of NFM and how it impacts the insurance business. Funding could also be used to implement suitable MRV processes at NFM sites in catchments with varying degrees of flood risk, that may not require extra capital or revenue funding. This would have the dual benefit of providing private sector funding to eligible projects, thereby increasing the delivery of NFM in the landscape, while simultaneously delivering evidence that will be of value to the insurance sector.

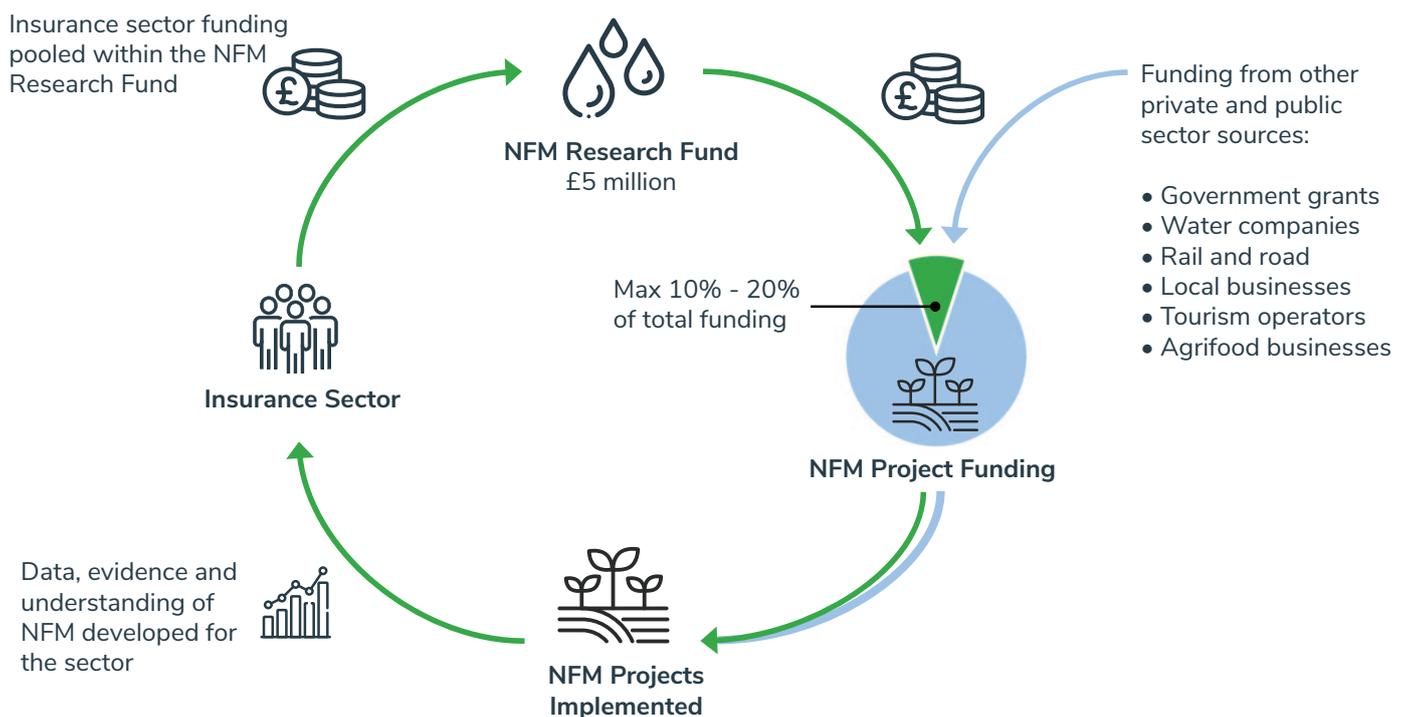


Figure 2: NFM Research Fund

The Fund would not work in isolation and could work alongside other initiatives working to advance the understanding of NFM, to further socialise the cost of research and reduce the free-rider impacts. These initiatives could include those led by the Engineering and Physical Research Council (EPSRC)⁴ and the Centre for Doctoral Training for Resilient Flood Futures (FLOOD-CDT)⁵. The insurance sector could set the desired outcomes of the research and a steering panel of flood practitioners could design a standard monitoring programme around those outcomes for approval.

There are similar examples of such sector-led approaches to furthering research priorities to the benefit of the sector as a whole, within other industries in the UK. Two examples included in this short paper are UK Water Industry Research (UKWIR) and the National Highways Natural Flood Management Fund. More information on these can be found in the Case Studies section.

What would the Fund pay for?

As explained in the Financing Natural Flood Management report, every NFM project is structured differently. As with the implementation of traditional grey infrastructure projects, most NFM projects, will require upfront capital funding (CAPEX) to fund the interventions in the landscape, as well as revenue funding. In the case of NFM projects, revenue funding is needed to:

- Pay landowners to host and maintain the interventions.
- To ensure adaptive management of the NFM interventions over time to ensure the interventions are delivering the required outcomes.
- To fund the operation of any governance or institutional structure used to manage and coordinate the funding and delivery of the project.

Funding will typically require a mixture of public and private sector funding, and this might be structured in different ways. For example:

- Public sector provides CAPEX funding and the private sector pay revenue funding (the Aire Resilience Company⁶), or
- Private sector contributes to CAPEX and public sector provide revenue funding through ELMs Landscape Recovery (Resilient Glenderamackin⁷)

⁴ <https://www.ukri.org/councils/epsrc/>

⁵ <https://flood-cdt.ac.uk/training-programme>

⁶ <https://aireresilience.org/>

⁷ Resilient Glenderamackin

NFM Projects looking to attract private sector buyers

Below we provide examples of current NFM projects seeking private sector funding and explain how the NFM Research Fund could support those projects.

Example NFM projects looking to attract private sector buyers			
Project	Total Funding Requirement	Private sector contributions	Targets
Wyre Natural Flood Management Project	£1m CAPEX and £220k p.a. for 9 years	£220k p.a. for 9 years £1.98m in total	Reduce peak flow by 10% in a 1-in-30 year flood at Churchtown
Aire Resilience Company	£2.5m CAPEX and £500k p.a. for an initial 5 years	£500k p.a. for initial 5 years £2.5m in total	Reduce peak flow by 5% in a 1-in-200 year type event in Leeds City Centre by 2069
Resilient Glenderamackin	£2.5m CAPEX and up to £500k p.a. for 20 years	50% of the CAPEX £1.25m in total	Reduce peak flow by 10% in a 1-in-30 year flood event in Keswick in current day scenarios

Table 1: Example NFM projects looking to attract private sector buyers, total funding requirements, required private sector contributions, and flood reduction targets.

Taking a contribution of between 10% and 20% of the total private sector requirements for an NFM project, as set out above, the NFM Research Fund from the insurance sector would contribute the following to each of the above three projects in the following ways:

- **Wyre Natural Flood Management Project:** between £198k (10%) and £396k (20%) as a revenue match contribution over 9 years. This equates to £22k - £44k p.a.
- **Aire Resilience Company:** between £250k (10%) and £500k (20%) as a revenue match contribution over 5 years – so £50k - £100k p.a.
- **Resilient Glenderamackin:** between £125k (10%) and £250k (20%) as a capital match contribution up front.

The NFM Research Fund could contribute between £100k to £500k to any individual NFM project, with £500k being at the top end as a 20% contribution to a larger project. Taking the midpoint contribution of £250k per project, then a £5m fund could support 16 projects with £4m after allowing for inflation linking, and £0.5m for fund operating costs.

The Fund would work alongside many other funding mechanisms including agri-environment schemes, government tree planting programmes, and other corporate initiatives in the landscape. Project developers would be responsible for ensuring additionality is achieved and double-funding of environmental outcomes does not occur as a result of this initiative.

Research Fund – Potential Details

Below we offer more details on how the fund could be structured, its size and duration and who it could be managed by.

Fund specifics	
Structure	Not a regulated investment fund – no expectation of financial return
Timeframe	10 years
Size	£5 million
Funded by	Insurance sector CSR and/or R&D budgets
Potential fund manager(s)	Natural England, Environment Agency, Rivers Trust
Fund management costs	Estimated at £50k per annum for ten years. Potentially split between technical and operational fund management organisations.

Table 2: Potential NFM Research Fund structure and details.

Potential project eligibility requirements	
Project type	Funding made available for NFM projects that show a tangible future reduction in flood risk to properties, where communities at risk do not qualify for FCERM funding, and/or in areas where the NFM project would provide future resilience to current flood alleviation schemes. There could be a preference for social enterprise models (such as Community Investment Companies (CICs)).
Modelling	Requires a credible hydrological model incorporating climate change to support any flood risk reduction assertions.
Match funding	Between 10% and 20% of total private sector finance secured by the project. This can be capital, revenue funding or a combination.
Monitoring, Reporting, and Verification (MRV)	<p>A credible MRV plan is required and guidance from the insurance sector should be provided to a steering panel of industry practitioners (including hydrologists, engineers, land managers and economists from academia and/or the Environment Agency, for example) to develop a scheme approved by insurers.</p> <p>Areas of research could include a variety of NFM interventions including land management changes, rainfall and flood data collection, reporting pre- and post-NFM interventions, and installation of flood gauges and level loggers.</p>
Time limitations	Due to the fund being time limited at 10-years, match revenue commitments could only be up to a maximum of 9/10 years.

Table 3: Potential eligibility criteria for projects applying to the Fund.



Benefits

An NFM Research Fund will create multiple beneficial outcomes for the insurance sector, for NFM project developers, and for society as a whole. These include the below:

Insurance sector

- Co-designing the MRV requirements for this Fund will allow the sector to increase the accuracy of insurance risk pricing models (within confines of competition law) by picking up the risk reduction generated by NFM in external datasets, and build a greater understanding of the SoP attributed to NFM assets. This could include site-specific NFM interventions and wider land management changes, such as peatland restoration in upland catchments.
- Funding could be used to further the accuracy of climate forecasts, the predicted impact of flooding, and the predicted reduction in risk from the implementation of NFM for a variety of climate scenarios.
- Furthering the understanding of the ability of NFM interventions to sequester carbon and to restore biodiversity will help the sector in assessing nature-based projects for their ability to help organisations meet any potential carbon and/or biodiversity requirements now or in the future.
- Development of data for future insurance products such as parametric insurance (for example developing habitat fragility curves for different NFM interventions)⁸.
- The Fund could help inform the development of a potential future market for NFM as an ecosystem service, increasing the ability of NFM to generate revenue and therefore attract upfront repayable investment.
- By sharing certain data sets on flood risks with NFM project developers, insurers can help identify the most vulnerable areas and co-design the most effective NFM strategies.
- Encourage the mainstreaming of NFM as part of the nation's FRM strategies and agri-environment schemes. More public funding attributed to NFM will ultimately benefit the insurance sector in the long run by reducing claims.
- In time, the evidence gathered could support the emergence of funding models that can deal with the peak and secondary perils of flood risk, such as through applying pooled risk funds to NFM and other necessary defences.

⁸ Kelso, M. A., A. E. Stovall, B. G. Reguero, G. Franco, and M. W. Beck. 2024. Nature-based Solutions & Risk Management: Recommendations for Integrating Nature into Risk Science & Insurance. UCSC and USACE, Washington, D.C

NFM projects

- Increased private sector funding for flood risk reduction – potentially crowding-in £20 million to £45 million of further private sector funding⁹.
- Develop improved governance structures for the management of public and private sector funded NFM (and NbS) projects.
- Build data and evidence on the ability of NFM projects to deliver wider environmental and social co-benefits, opening up potential future funding partnerships.
- Further develop understanding of business and community drivers for co-investment in NFM schemes.

⁹ Assuming the NFM Research Fund total size is £5 million and represents 10% to 20% of total private sector funding for NFM projects.



Future Opportunities for Insurance and NFM

In this short paper, we have focussed on the challenges around the insurance sector acting as buyers of reduced flood risk in NFM projects. While not the focus of this paper, in the longer-term, there are potential opportunities for the sector, that involve NFM and that are more compatible with current organisational drivers. By developing the data and evidence base for NFM in its ability to reduce flood risk and deliver wider environmental outcomes, the insurance sector can begin unlocking some of these opportunities below.

Providing insurance to de-risk investments in NbS that have flood reduction benefits

Some governments will issue debt to fund increasing resilience for their communities. In some instances these countries are susceptible to extreme weather events that may disrupt a country's ability to meet debt repayments. Catastrophe wrappers are an insurance product that can be purchased by debt issuers and provide a payout to cover bond payments in the event of a covered catastrophe. In the case of the Belize debt conversion for marine conservation, the catastrophe insurance was parametric and provided coverage for blue loan principal and coupon payments following an eligible hurricane event. [[See Belize Blue Bond case study](#)]

Insurance coverage for carbon credit delivery

Some carbon projects such as mangrove restoration and tree planting also provide flood risk mitigation benefits. Carbon finance can be an important source of funding for these projects but there is a risk these credits may not come to fruition due to fires, deforestation, or fraud (for example). Providing insurance coverage against these and other risks could help stimulate investment in nature-based carbon credits that also deliver flood risk benefits. For example, in 2022, Howden, Respira International, and Nephila Capital developed a carbon credit invalidation insurance solution that provides cover for third-party negligence and fraud¹⁰.

¹⁰ <https://www.respira-international.com/howden-launches-world-first-voluntary-carbon-credit-insurance-product-to-help-scale-the-market/>

Parametric insurance policies that incentivise the recovery of natural ecosystems that generate flood risk benefits

Parametric insurance provides rapid, pre-agreed payment amounts based on the occurrence and intensity of a hazard event, such as fire, wind and floods, for example. These rapid payouts enable swift emergency responses and can be used to fund longer-term reconstruction to ensure that the ecosystem asset can continue to deliver flood risk mitigation into the future. An example of such a product is Quintana Roo Reef Protection product, which in 2018 was the first insurance solution to preserve a reef ecosystem in Mexico to ensure continued flood risk mitigation delivery. If a hurricane meets a pre-agreed threshold then payouts are triggered allowing the community to repair any damage to the reef. [[See Quintana Roo case study](#)]

New opportunities for investment into NbS for financial return

The emergence of NbS as an investable asset class could potentially offer the investment arm of insurers an opportunity to derive financial returns from investing in nature. Having a revenue stream for flood risk reduction benefits in projects alongside revenues from other ecosystem services, such as carbon sequestration and water quality, will reinforce the overall viability of NbS (including NFM) as an asset class. If these projects can be shown to deliver similar predictable returns as the renewable energy sector for example, where private sector funding has worked alongside public support to ensure predictable returns on investment, there could be a strong case for future investment in such projects at scale. This may help contribute to potential TNFD reporting requirements. Flood investment bonds, whereby investments into flood risk reduction could provide a return on capital to an investor, are a possible future option, but these and any investment in NbS by the insurance sector, must meet solvency requirements and have some degree of liquidity¹¹.

Opportunities for nature-based carbon credit requirements

Some nature-based projects that create carbon credits may also reduce flood risk. For example, large scale tree planting projects in the UK may reduce flood risk if planted appropriately, and these could be a source of carbon credits for a funder. Committing funding to nature-based projects that simultaneously reduce flood risk and generate carbon credits could be a suitable pathway for insurers to obtain carbon credits as part of decarbonisation strategies. [[See Aviva and The Wildlife Trust - Atlantic Rainforest Programme case study](#)]

Next Steps

In the coming months, The Green Finance Institute and members of the Strategic Working Group will be socialising this paper with key stakeholders including the insurance sector, government, and NGOs, to agree details on the Fund. We look forward to working with all stakeholders to help mobilise further private sector capital into NFM across the country.

¹¹ <https://www.bankofengland.co.uk/prudential-regulation/key-initiatives/solvency-ii>



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Flood Re	Jonathan Kassian	Head of Research
Finance Earth	Caleb Wheeler Robinson	Senior Associate
The Rivers Trust	Dan Turner	Technical Lead – Land Management and Market Creation
Markerstudy Insurance Group	Gary Huetting	Chief Operating Officer
Marsh	Dr Bev Adams	Head of Climate Resilience & Strategy Practice
Swiss Re	Aidan Kerr	Director, Public Sector Solutions
WWF	Lucy Lee	UK Chief Advisor

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Appendix

Flood Re

Established in 2016, Flood Re is a joint initiative between the UK Government and insurers, funded by the insurance industry. It was established to ensure people living in high-risk flood areas could secure affordable home and contents insurance. Every insurer that offers home insurance in the UK must pay into the Flood Re scheme, and the £135 million that is raised through this annual levy is used to subsidise the flood risk portion of a home insurance policy. Commercial properties are not covered under the Flood Re scheme, nor are domestic properties built after 2009, nor leaseholds with more than three dwellings.

The flood risk element of a home insurance policy can be 'ceded' to Flood Re for a fixed price based on property tax banding, provided the property is eligible for the scheme. Should there be a claim on this policy due to flood related damages, the insurer will cover pay out in the usual way and will be reimbursed by Flood Re. Flood Re therefore acts as a reinsurance scheme for the home insurance sector managing insurers' exposure and keeping flood insurance affordable for eligible properties.

At the time of writing, there have been more than 500,000 flood insurance policies ceded to Flood Re at some point since the scheme's inception in 2013. This is not the totality of at-risk households in the UK as there are properties at risk that obtain flood insurance without Flood Re support.

The Water Act 2014 sets out Flood Re's primary purposes, including to manage, over the period of operation of the scheme, the transition to risk-reflective pricing of flood insurance for household premises. It also states that Flood Re will cease to exist in 2039, by which time affordable, risk-reflective pricing should be available to households in the market. Post-2039 the aim of Flood Re is to have enabled the insurance market to move to risk-reflective pricing of flood insurance for those in high-risk areas. This will, in effect, require that flood risk has been adequately managed by this time – key principles for flood risk management are outlined in Flood Re's [2023 Transition Plan](#). One priority in the plan is to support the development and awareness of NFM techniques in reducing flood risk.

Box 2: Overview of Flood Re¹²

¹² <https://www.floodre.co.uk/about-us/>



Case Studies

Aviva and WWF Partnership

A 3-year partnership between Aviva and WWF looks to transform the finance sector to deliver a low carbon and nature positive future, build climate resilient communities, restore nature, and encourage action on nature and climate by engaging people. The partnership looks to reduce the effects of flooding on communities by directly funding NFM interventions in the landscape. By modelling the potential impacts of NFM interventions, these projects aim to reduce risk to people and properties while protecting and restoring nature. Furthermore, the partnership is advocating for the increased adoption of NFM across the public and private sector. NFM projects within the partnership are located on the River Soar and led by Trent Rivers Trust, and in East Anglia led by Norfolk Rivers Trust.

In December 2020, Norfolk received a month's worth of rain within 24-hours and severe flooding occurred in the village of Gissing in Norfolk, where six properties were internally flooded. Following these floods, the Norfolk Rivers Trust (NRT) and the River Waveney Trust (RWT) joined forces, in collaboration with WWF and Aviva, to proactively protect the village of Gissing in south Norfolk from flooding. The Gissing NFM project also received funding from the Environment Agency and the Garfield Weston Foundation.

The Trusts collaborated with landowners, the local community, and the parish council to implement a programme of NFM measures to reduce the risk of flooding in Gissing. Completed in September 2023, the project included interventions such as reconnecting the River Waveney to its floodplain, reconnection of dry historic channels to the river, and the creation of scrapes to slow and store water.

In October that year, Storm Babet hit the UK, bringing with it intense rainfall to the south east of England, and high volumes of surface water runoff. The NFM interventions implemented by the project diverted water onto the floodplain where it could be stored and released gradually, reducing the flood peak. There have since been a further seven named storms to hit Gissing village, with no properties flooded since the installation.

Box 3: Aviva and WWF Partnership^{13,14,15} and the Gissing Natural Flood Management Project¹⁶

¹³ <https://www.aviva.com/sustainability/aviva-and-wwf/>

¹⁴ <https://www.trentriverstrust.org/projects/natural-flood-management-in-the-soar-catchment/>

¹⁵ <https://norfolkriverstrust.org/project/riverscape-ea/>

¹⁶ https://norfolkriverstrust.org/naturalfloodmanagement_gissing/

Aviva and The Wildlife Trusts - Atlantic Rainforest Restoration Programme

The Wildlife Trusts will be restoring 5,200 acres of temperate rainforest in the British Isles funded by a £38 million donation from Aviva. The project will generate multiple outcomes including carbon sequestration and flood risk reduction, and is predicted to remove 800,000 tonnes of carbon from the atmosphere over the next 100-years (based on Woodland Carbon Code calculations). Carbon credits will be generated from the project once the woodlands are established and would form part of Aviva's decarbonisation strategy aiming to be net zero by 2040.

Box 4: Aviva and The Wildlife Trusts – Atlantic Rainforest Restoration Programme^{17,18}

RSA Insurance and Gloucestershire Wildlife Trust Natural Flood Management Partnership

Launched in 2023, the two-year RSA Insurance and Gloucestershire Wildlife Trust partnership looks to implement an extensive NFM programme to reduce flood risk across Cheltenham and Gloucester, which RSA Insurance identified as two areas that have some of the most acute flood risk, based on extensive data analysis. The programme will showcase the use of NFM in reducing flood risk to Cheltenham and Gloucester, develop a network of connected green spaces across the area, and install urban green infrastructure to reduce surface water flooding and support urban wildlife. The initial investment from RSA Insurance will be £400,000.

Box 5: RSA Insurance and Gloucestershire Wildlife Trust NFM Partnership^{19,20}

RSA Insurance and The Wildlife Trusts – Assessing the Multiple Benefits of Natural Flood Management Research Project

The research partnership between RSA Insurance and The Wildlife Trusts looks to fill the data and evidence gaps on the multiple benefits provided by NFM schemes, in order to build the economic case for investment in NFM, including from insurance companies. Research will focus on reduction in flood risk alongside biodiversity and carbon impacts to provide a comprehensive picture of the benefits generated by NFM.

Box 6: RSA Insurance and The Wildlife Trust – Assessing the Multiple Benefits of Natural Flood Management Research Project.

¹⁷ <https://www.aviva.com/newsroom/news-releases/2023/02/aviva-helps-restore-rare-native-british-rainforests/>

¹⁸ <https://www.wildlifetrusts.org/news/new-fund-help-wildlife-trusts-restore-rainforests-britain>

¹⁹ <https://www.rsainsurance.co.uk/news/press-releases/2023/rsa-building-resilience-in-partnership-with-gloucestershire-wildlife-trust/>

²⁰ <https://www.gloucestershirewildlifetrust.co.uk/gloucester-and-cheltenham-waterscapes>

UK Water Industry Research (UKWIR)

UKWIR was set up by the water industry in 1993 to provide a framework for the procurement of a common research programme for UK water operators on 'one voice' issues. It is responsible for developing the research agenda of the water industry, and for procuring and managing the research and disseminating the findings. Membership of UKWIR consists of 18 water companies from across the United Kingdom and Ireland.

One output of UKWIR is the publication of Climate Change Adaptation – A Common Framework, which sets out a shared climate adaptation goal, and addresses the lack of a common approach to climate hazards, scenarios, timescales and assessments across the water sector. Objectives of the framework include: Assess climate risks consistently using up-to-date appropriate data; Deliver resilience in the water sector; and Assess and deliver co-benefits (including through nature-based solutions).

The need for this project was identified by the sector due to challenges with communicating the uncertainty and complexity of the likely impacts of climate change, as well as the inherent inconsistency of climate change projections and scenarios between different water companies. These challenges lead to difficulty with embedding climate change into decision-making processes in the sector, therefore inhibiting investments into adaptation (including into NbS).

Box 7: UK Water Industry Research²¹

National Highways Natural Flood Management Fund

Between 2020 – 2025, National Highways has ring-fenced £936 million under their Designated Funds programme. This fund aims to address social and environmental issues while improving the road network and its surroundings. The four funding areas are: Users and communities; Environment and wellbeing; Innovation and modernisation; and Safety and congestion.

Within the Environment and wellbeing fund, there are nine themes, including Flooding. This theme looks to reduce flooding on roads and minimising flood risks for neighbours and local communities, through contributing to flood management schemes.

As part of this commitment, National Highways have allocated part of this designated funding towards the National Highways Natural Flood Management Fund, hosted by the Mersey Rivers Trust and the Don Catchment Rivers Trust with support from Atkins. This Fund is a pilot to explore how National Highways can work with farmers and landowners to reduce flood risk on sections of roads known to be vulnerable to flooding. Projects that receive funding from the Fund, will be monitored for up to 5-years by National Highways to assess the effectiveness of the NFM measures in reducing flood risk to roads allowing National Highways to further their understanding on how natural flood management can deliver flood risk to their network.

Box 8: National Highways Natural Flood Management Fund²²

²¹ <https://ukwir.org/leading-the-water-industry-research-agenda>

²² <https://dcr.org.uk/farmers-2/national-highways-little-don-nfm-fund-pilot-project/>

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