

Financing Nature-based Solutions (NbS): The Case for NbS in Agriculture



A brief for banks with an agricultural lending portfolio

This [NetworkNature](#) brief is aimed at banks with agricultural lending portfolios in Europe. It sets out why Nature-based Solutions (NbS) - practices that work with natural systems rather than against them - are a key tool to help reduce risk and what actions banks can take to support them.

This brief explains that:

- **Agricultural lending portfolios face growing risk.** Farm margins are under pressure from volatile incomes, rising input costs, and projected climate-driven yield declines of 11–20% across Europe. All of this threatens farming businesses' capacity to repay loans.
- **Nature degradation is compounding the problem.** Agriculture depends on the services that ecosystems provide, such as healthy soils, water and pollinators. Yet farming is the leading driver of biodiversity loss globally. It threatens the very ecosystem services upon which the sector, and farm productivity and creditworthiness, depend.
- **Nature-based Solutions (NbS) offer a practical response.** Sustainable practices such as agroforestry, no-till farming, the recovery of wetlands and the creation of hedgerows can reduce input costs, build climate resilience and unlock new revenue streams (e.g. carbon credits, certified products). These can be a tool to improve the long-term viability of farming businesses and their ability to service debt.
- **Banks can strengthen their understanding of NbS to help build resilience in their loan portfolio.** Mapping nature risks across agricultural portfolios, building internal NbS expertise and developing tailored lending products can turn the challenge of nature risk into an opportunity. Peers including Lloyds, Société Générale and Intesa Sanpaolo have already developed NbS-linked agriculture finance products that offer practical models to follow.



Challenges in Agriculture and the Role of Nature

Across Europe and the UK, agricultural lenders are facing a more volatile risk environment.

Farm incomes are structurally low and variable, with a significant share of income derived from public support in many EU countries (see [European Commission CAP statistics](#)). At the same time, sharp increases in input costs, notably fertiliser prices rising by over 80% between 2021 and 2022 ([Eurostat](#), 2023), are placing pressure on margins and increasing exposure to repayment risk.

Climate change is also intensifying pressures on farming businesses and threatening their ability to both access and repay finance. Droughts in Europe have increased in frequency and severity since the mid-20th century, with the 2022 drought affecting over 60% of EU and UK territory at its peak ([EEA](#), 2023; [JRC](#), 2023). EU climate impact modelling indicates that average crop yields could decline by around 11% without adaptation, with reductions of up to ~20% in southern Europe due to increased heat and water stress, while outcomes vary by crop, geography and the extent of adaptation ([JRC PESETA II](#)).

Damage to nature is threatening the ecosystem services upon which agriculture fundamentally depends. Agriculture is highly dependent on services that nature provides, such as soil fertility, water regulation and pollination, yet the sector is also the leading driver of biodiversity loss globally ([IPBES](#), 2019). For example, around 75% of global crop types depend to some extent on animal pollinators ([IPBES](#), 2016), yet around one in three assessed pollinator species in Europe are declining ([EEA](#), 2020). The estimated short-term effects of a total collapse of animal pollinators are between 1-2% of global GDP ([Lippert et al.](#) 2021). Soil degradation, partially driven by



unsustainable farming practices, is further compounding these risks – an estimated 60–70% of EU soils are in an unhealthy condition ([European Commission, 2021](#)). As these natural assets decline, risks to farm productivity and income stability increase.

Shifting farming practices to be more aligned with nature can increase farm resilience and ensure reliable returns for lenders. NbS (Box 1) offer a practical pathway to generate benefits that stabilise farm performance and reduce risk exposure within agricultural lending portfolios. These benefits can occur in the short-term, i.e. reduced input costs and improved water retention, and in the long-term, i.e. improved soil health and climate resilience.

Box 1

What are Nature-based Solutions?

NbS are “actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits” ([IUCN, 2016](#)). In practical terms, **the term NbS means working with nature rather than against it: leveraging forests, wetlands, soils and other ecosystems to manage risks such as climate change, water scarcity and disaster risk**

Unlike conventional “grey” infrastructure (e.g., irrigation dams, drainage systems), NbS harness natural processes to deliver resilience and multiple co-benefits, often at competitive or lower long-term cost when environmental and social benefits are considered. For example, NbS help enhance soil moisture and the sponge capacity of watersheds, thus strengthening the foundation for agricultural productivity ([Global Commission on the Economics of Water 2024](#)). In the European Water Resilience Strategy, the EU affirmed that “action on water management should prioritise nature-based solutions” ([EC 2025](#)).

Various nature-based practices on farm can be categorised as NbS. These include:

- agroecological practices such as cover crops, minimum tillage and reduced synthetic pesticide use,
- agroforestry systems that mix trees and shrubs with crops or livestock,
- measures that enhance biodiversity on farms, for instance through the inclusion of hedgerows and flower strips ([EC 2020](#)).

Some agricultural approaches are particularly well-aligned with internationally agreed criteria to define NbS. These are **agroecology, nature-inclusive agriculture, regenerative agriculture, biodynamic agriculture, and organic farming**. ([IUCN 2024](#))¹

¹ IUCN specifies that the way these approaches are carried out on the ground can be different from the principles they are based on. Each intervention will depend on its specific context, so determining whether it is or not an NbS should be done on a case-by-case basis.



The Business Case for NbS Investments in Agriculture

NbS can offer effective and often low-cost ways for farming businesses to build their resilience, as well as potentially drive additional income streams ([European Commission 2025](#)).

For banks, financing NbS can, in turn, reduce the risk of clients defaulting on loans while supporting farming systems that are more resilient to climate and nature-related risks. The sections below explore the four drivers that can motivate businesses and financial institutions to invest in or finance NbS:

1. **Enhancing risk mitigation and resilience**
2. **Improving cost-efficiency**
3. **Unlocking opportunities for revenue generation**
4. **Maintaining a social license to operate**

Each section provides concrete examples of how projects funded by the European Union through programmes such as [Horizon Europe](#) and [Interreg](#) are already delivering NbS on the ground. These projects can help lenders to better understand NbS and see their role as a part of the diversification toolkit for farm businesses.

a. Enhancing Risk Mitigation and Resilience

NbS play a critical role in strengthening agricultural resilience and preserving natural assets. Banks can therefore design tailored lending and debt-based programs that integrate NbS and help ensure that clients maintain their capacity to repay loans, in turn preventing financial losses. This means providing finance for solutions that allow clients in the agricultural sector to effectively mitigate the risks associated with nature degradation, such as floods, droughts, fires, pests and pollution.

Relevant EU project examples: The risk mitigation and resilience driver is illustrated in the [ARCADIA](#) project's sites in Wagram (Austria) and Lund (Sweden). In Austria, hedges and buffer strips have been strategically located on vineyards, farmland and hills along the river Danube to safeguard yields by preventing erosion, storing water and enhancing biodiversity. In Sweden, NbS such as irrigation wetlands and two-stage ditches are being deployed at the landscape level to build back the resilience of a region that was left especially vulnerable to flood and drought risks due to agricultural drainage. The project is also seeking to establish a new biosphere reserve in the area. Water-based solutions are also deployed in the [PONDERFUL](#) demo site in Leicester (UK), where a set of ponds and pools were created to provide wildlife habitats, reduce flooding risk and intercept agricultural pollutants.

In order to use NbS to enhance risk mitigation within their portfolios, banks should start by mapping their agricultural portfolio to better understand where their material nature risks lie and to determine how NbS can address them. For example, Lloyds Bank mapped 5.1 million hectares of UK farmland using earth observation data to identify farms that operate near areas with potentially elevated nature risks, such as physical water stress, soil degradation and proximity to protected areas. This information then allowed Lloyds Bank to identify the areas where NbS such as cover cropping, tree planting and sustainable water management would deliver the most significant environmental and economic benefits ([Farming with Nature](#)).

b. Improving Cost Efficiency

Some NbS can generate a reduction in, or avoid, costs that are associated with conventional infrastructure development and inputs. In the agriculture sector, capital expenditure savings from NbS can come from implementing green infrastructure to slow, store, filter and infiltrate water. Operational savings from NbS can be accomplished by reducing input use of pesticides, fertilisers, water, energy and labour.

Relevant EU project examples: The [NbS4Drought](#) project worked in Samsø Island (Denmark), where farmers created small wetland reservoirs to reuse drainage water, reducing irrigation costs and lowering pressure on groundwater supplies. For operational cost savings, [ClieNFarms](#) Gęsin's (Poland) dairy farm and [FABulous Farmers](#) Noord Brabant (The Netherlands) pilot areas utilised no-tillage methods and flower strips resulting in cost reductions on inputs such as fuel, labour and fertilisers. Finally, Rothamsted's North Wyke site (United Kingdom), part of the [trans4num](#) project, is aiming to achieve cost savings by using abattoir by-products as bio-fertilisers.

Helping clients in the agricultural sector achieve capital and operational cost savings through the implementation of NbS would enhance the resilience of a bank's agricultural portfolio. By devising specific loan and bond products and tailoring their sector-specific strategies and advisory services accordingly, banks could reduce credit risk and onboard sustainability-focused clients and enterprises.

c. Unlocking Opportunities for Revenue Generation

Investing in NbS in the agriculture sector can result in direct income streams for businesses and financial institutions. This can happen through the integration of additional crops and forest products into agricultural systems (e.g. including additional crops within rotations and implementing agroforestry systems), but also through the generation of circular byproducts to sell (e.g. bio-fertilisers), carbon removal credits, sustainably certified products and emerging nature credit mechanisms.

Relevant EU project examples: Pilot areas from the FABulous Farmers project in Southwest England (United Kingdom) and Pays de la Loire (France) tested the introduction of legumes within cereal rotations and the sale of carbon credits from sustainable hedgerows management as revenue-generating activities, respectively. Farms under the REFOREST project in Jagava (Czechia) and Strandzha (Bulgaria) generated additional revenue through the sale of fruits and honey, obtained through agroforestry systems. In the Bulgarian case, the honey has received organic certification. Additionally, a trans4num project site in Northern Jutland (Denmark) is characterised by the generation and use of bio-based fertiliser from organic waste, which can also be sold to increase the farmer's profit.

Interventions that generate new and additional revenue streams will strengthen the bankability of potential clients, making them more attractive to commercial banks. Additional income streams through measures such as carbon credit sales and sustainably certified products can help banks justify a larger role in financing NbS and structure more complex debt instruments (e.g. thematic bonds, sustainability-linked bonds and loans, collateralisation of future revenues).



d. Maintaining a Social License to Operate

The agriculture sector can leverage NbS to build and strengthen trust with local communities and customers. Businesses can ensure social licence to operate through NbS by clearly articulating their social, environmental and economic benefits to relevant stakeholders.

Relevant EU project examples: In Europe, food manufacturers such as Nestle, Danone and Friesland Campina have participated in initiatives aimed at implementing NbS across their supply chains. They are all partners in the [ClieNFarms](#) project and work with farms in their supply chain to achieve climate neutrality in the sector. Not only is this a good risk mitigation action, but it also contributes to better reputation with increasingly climate-conscious customers if communicated well. Other examples of NbS projects strengthening social license include Suntory Global Spirits and RSPB's peatland restoration initiative in Scotland and Iberdrola's ecological restoration on agricultural land in Spain. These can be found in the [Restoration Project Developers' Playbook on Private Finance](#) (UNEP-WCMC 2025) and the [From Risk to Resilience: The Business Imperative of Nature Restoration](#) (CISL 2023), respectively.

Banks and their clients can benefit reputationally and commercially when their NbS interventions deliver clear benefits for local communities. When engaging with nature-based interventions in the agriculture sector, banks should perform thorough due diligence to ensure that financed clients clearly articulate the social benefits of their proposed interventions and have robust plans to monitor them to ensure they are being delivered as intended.



Linking NbS Interventions to Investment Drivers

Table 1 presents an indicative list of EU-funded NbS that are supporting farming businesses. It links them to the four investment drivers. In addition to the ones presented in the table, it should be noted that there are other projects that are researching and testing NbS in the agriculture sector. These include demonstrating sites, pilots and hubs under the [DESIRMED](#), [GoNaturePositive](#), [GRACE](#), [HYDROUSA](#), [NBSoil](#), [NURISH](#), [VALOR](#) and [Spongescapes](#). These were not included in the table to avoid repetition of implemented NbS, or due to their early stage and lack of detailed information on their case studies at the time of writing.

Table 1. This table gives some examples of how NbS can be used by farming businesses, alongside illustrative case studies funded by Horizon Europe.

NbS for the agriculture sector	Case study (and associated Horizon Europe project)	Driver for investment
Multi-purpose hedges and buffer strips that prevent erosion, store water, and enhance biodiversity.	 Wagram: Nature-based Solutions for “Too much and too little water” (ARCADIA)	Risk mitigation; cost efficiency; social license
Expanding blue-green corridors in river catchment areas to boost biodiversity and enhance resilience to flooding and drought.	 Helsingborg: NbS in the Rural/peri-urban challenges including catchment area approach and land-owner dialogs (ARCADIA)	Risk mitigation; social license
No-till farming to improve water retention in the soil and increase its biodiversity and fertility (while reducing cost of tillage).	 Danone partner dairy farm in Gęsin (ClieNFarms)	Risk mitigation; Cost efficiency
Mixed cropping (legumes and cereals) and reduced tillage to reduce chemical fertiliser input and enhance biodiversity.	 Mixed crops with Wildfarmed in Southwest England (FABulous Farmers)	Risk mitigation; Cost efficiency; revenue generation
Introduction of flower strips to attract pollinators and natural predators, increasing biodiversity and reducing the need for chemical crop protection products.	 Flower strips in Noord-Brabant, the Netherlands (FABulous Farmers)	Cost efficiency; social licence
Implementing ecosystem restoration to enhance resilience to flooding, habitat connectivity and biodiversity (i.e. providing shelter to pollinators and key-species predators)	 Floodplain restoration in Sorraia, Portugal (MERLIN)	Risk mitigation; cost efficiency; social license
Creation of wetland reservoirs to help preserve groundwater and sustain local agriculture, as well as increasing biodiversity on site.	 Constructing wetland reservoirs to secure agriculture production on Samsø island, Denmark (NBS4Drought)	Risk mitigation; cost efficiency; social license
Creation of ponds to provide high-quality biodiversity habitats, store floodwater and intercept agricultural pollutants.	 Water Friendly Farming, Leicester (Ponderful)	Risk mitigation; cost efficiency; social license
Introduction of trees in intensive farming landscape to improve soil conditions, and increase water infiltration, biodiversity and resilience.	 Inagro Living Lab in Belgium (REFOREST)	Risk mitigation; cost efficiency; social license
Crop rotation with biomass crops and use of bio-based fertilisers from organic waste to improve soil quality, soil biodiversity and minimize nitrogen loss.	 NBS site in Northern Jutland, Denmark (Trans4num)	Risk mitigation; cost efficiency

What next?

To drive uptake of NbS as a means to build resilience in agricultural investments, there are a number of measures banks can take.

Broadly, this entails building capacity among key teams, developing a clear strategy and solidifying partnerships.

Below, and illustrated in Figure 1, are some suggestions that teams within a bank could consider and tailor to their own situation. A number of private banks in Europe have already started to increase the volume of finance they provide to NbS and other sustainable agriculture investments. Some examples are given below for inspiration.

For Credit Risk and Environmental & Social (E&S) Risk teams:

Evaluate the impacts and dependencies on nature within the bank's agricultural portfolio, in line with the TNFD's LEAP Approach (TNFD, 2026). From this, identify and rank where the most material nature risks are emerging, and over what time horizons. Consider NbS as both a means to manage risk and generate opportunity - NbS can help reduce the likelihood of nature risk materialising, and help build resilience in client businesses, ensuring reliable payback of loans.

Relevant example: IndusInd Bank (India) conducted a pilot on the implementation of the LEAP approach on its agriculture corporate loans portfolio in India, focusing on determining sensitive locations and understanding impacts and dependencies across 12 Indian states. ([Global Canopy, 2024](#)).

Relevant example: Rabobank (Netherlands) conducted a nature footprint analysis on their private sector loan portfolio (63% of their total assets). It found that the biggest nature-related impact from their assets comes from land use, and most of Rabobank's clients' impact on nature occurs at farm level in the animal protein, grains & oilseeds and dairy sectors. Additionally, 85% of the covered assets were found to be 'highly' or 'very highly' dependent on ecosystem services such as water availability, soil quality, and climate regulation. ([Rabobank, 2024](#))

For Front Office and Relationship Managers:

Build greater understanding of what NbS are and the multiple benefits that they can create. This includes going beyond financial values.

Ensure customer-facing staff have the understanding and capacity to discuss NbS options, including transitioning to regenerative farming, and associated opportunities and costs, with clients, alongside more traditional interventions. As climate change and international volatility bring more challenges to farmers profitability, NbS are one tool to reduce input costs and help maintain business viability.

For Product Development teams:

Become familiar with the variety of financial models that can support NbS. .

Consider which model could fit within the bank's strategy and current products. Within these considerations, bear in mind where the bank's greatest nature risks lie (from the assessment above) and consider targeting new products that encourage uptake of NbS.

Relevant example: Lloyds bank (UK) have developed a transition finance loan product, “designed to help UK farmers who wish to adopt regenerative farming techniques to become more resilient for the future”. It was developed with estate agent Savills, who “reviewed research from over 220 sources, looked at 45 case studies, and held farmer and industry stakeholder conversations” to inform its development. The product offers fee-free lending with terms of up to 25 years and an up-front interest-only period of up to 5 years, providing long term support to farming businesses to transition.

Relevant example: Triodos Bank (Netherlands, Spain, Belgium, UK) has taken a decision to only offer agricultural loans to farms that are either certified organic, in conversion to organic production or demonstrate a clear alignment with those principles and practices. This is in alignment with the bank's wider environmental and animal welfare standards, and principles of sustainable agricultural production and equitable value chains.

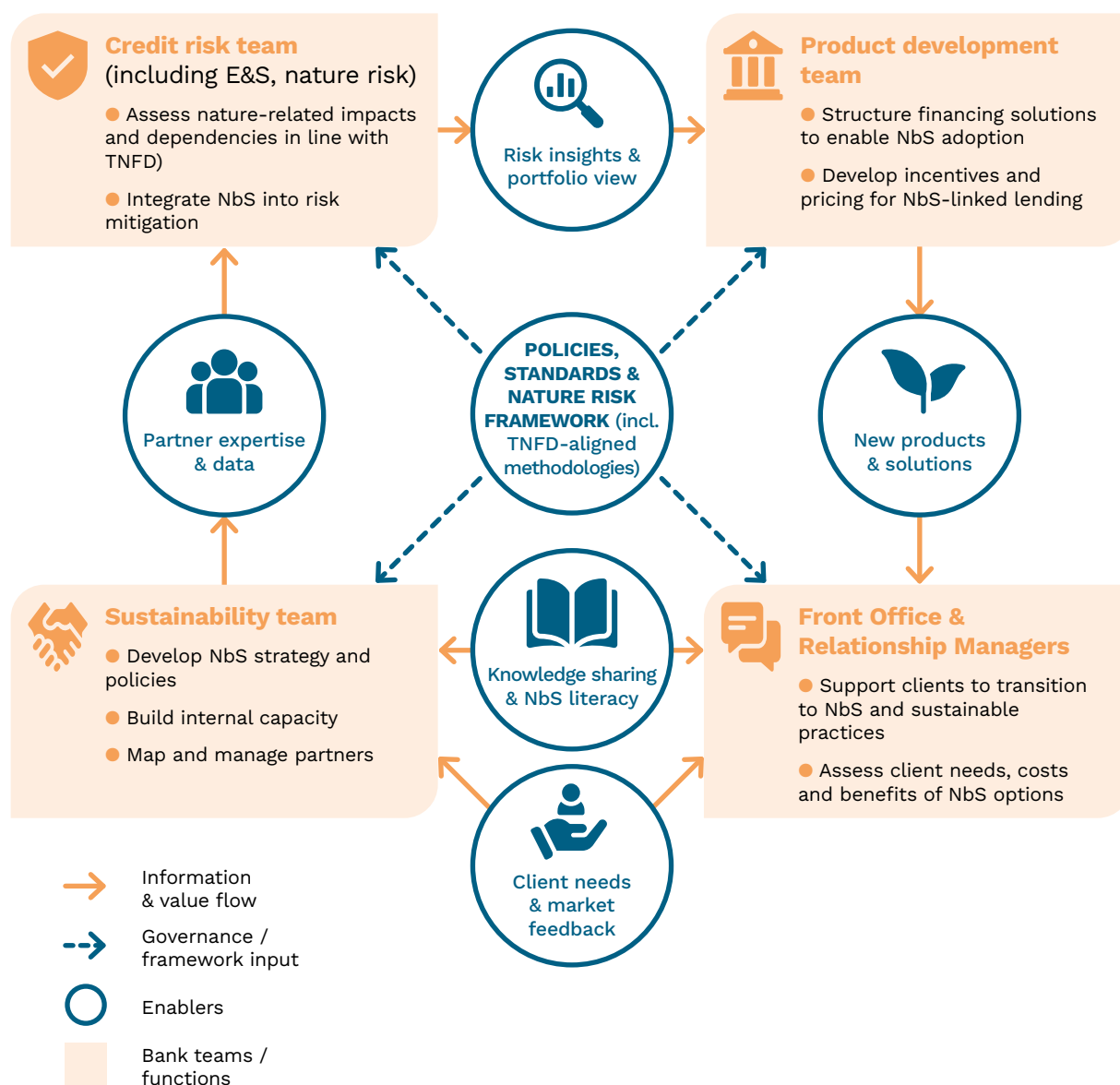
For Sustainability teams:

Map the landscape of partners who can help the bank build its understanding of various NbS interventions and help farmers and other clients to implement them.

This could range from local project developers, environmental NGOs and researchers.

Relevant example: Société Générale (France) has been supporting clients in the selection, origination, and sourcing of investments in NbS projects. To do this, the bank has built a network of project developers, and invested in EcoTree, a B-Corp start up active in preserving forests and ecosystems in Europe. They have also developed a screening methodology to identify high-quality projects that maximise impact outcomes.

Figure 1. Various teams within a bank have role to play in considering increasing the uptake of NbS.



For further information on financing NbS, consider these resources:

A Guide to the Nature-based Solutions (NbS) Finance Landscape in Europe (UNEP-WCMC, 2025).

Outlines the business case, financing models and skillsets required to mobilise investment into NbS in Europe.

Sustainable agriculture and Nature-based Solutions (IUCN, 2026). This publication focuses on the relationship between sustainable agricultural practices and the concept of NbS, and specifically the applicability of the IUCN Global Standard for NbS.

Investing with Nature: Exploring Investment Opportunities Across Ecosystems - Primer 5: Nature-based Solutions in Farmlands (UNEP FI, 2023). Provides an overview of NbS in farmlands and their benefits. It is catered to financial institutions embarking on their NbS journey as it showcases case studies, new financial instruments, and recommendations.

Investing in nature-based solutions - State-of-play and way forward for public and private financial measures in Europe (EIB, 2023). Takes stock of the current use of nature-based solutions in the European Union by identifying the operational and financing challenges faced by projects in different landscapes and ecosystems and sets out some possible solutions.

About NetworkNature NetworkNature is a key knowledge broker and information resource fostering and strengthening the European NbS community. The platform connects over 100 NbS-related projects and initiatives, facilitating collaboration and knowledge exchange between researchers, policymakers, practitioners, businesses and finance actors to advance the uptake and impact of NbS.

Authors: Giacomo Ascenzi, Rodrigo Cassola, Nikki Chapman and Joanna Wolstenholme (UNEP-WCMC).

Suggested citation: Ascenzi, G., Cassola, C., Chapman, N., Wolstenholme, J. (2026). Financing Nature-based Solutions (NbS): The Case for NbS in Agriculture. NetworkNature EU HORIZON-CL6-2022-BIODIV-01, Project ID 101082213. UN Environment Programme World Conservation Monitoring Centre. Cambridge, UK.

Disclaimers: Mention of a commercial company or product in this document does not imply endorsement by the United Nations Environment Programme or the authors. The use of information from this document for publicity or advertising is not permitted. The views expressed in this publication are those of the authors and do not necessarily reflect the views of the United Nations Environment Programme.



Funded by
the European Union



UK Research
and Innovation

This project has received funding from the European Union's Research Executive agency under grant No. 101082213. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Commission. Neither the European Union nor the granting authority can be held responsible for them.

This work is also funded by UK Research and Innovation (UKRI) under the UK government's Horizon Europe funding guarantee [grant number 10064784]



www.networknature.eu