

Scotland's Rural College

Financing UK Nature Recovery

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FINANCING UK NATURE RECOVERY

FINAL DRAFT

FINANCING UK NATURE RECOVERY

SCALING UP HIGH-INTEGRITY ENVIRONMENTAL MARKETS ACROSS THE UK

APRIL 2022



The Financing UK Nature Recovery initiative was established in November 2020 with the aim of putting nature onto a sustainable financial path.

Led by the Broadway Initiative, Green Finance Institute and Finance Earth, the initiative brought together over 200 industry leaders from the land management, business, finance and environment sectors across the UK, to:

- identify the barriers to large scale private investment in nature recovery and how these barriers can be overcome;
- establish a framework to ensure the high integrity of UK environment markets;
- provide recommendations and roadmap for scaling up environmental markets across the UK.

FOREWORD

This Report is fundamentally about putting UK nature and its recovery onto a financially sustainable path.

It sets out a framework for scaling up high integrity environmental markets to enable the UK to demonstrate how to modernise regulation, leverage public expenditure and secure large-scale private investment in nature recovery.

It is hard to overstate the scale of the challenges we face in addressing climate change and the decline in global and local biodiversity. However, an important legacy from the UK's Presidency of COP 26 in 2021 is the increasing recognition that action on climate change and the decline of nature are inextricably linked.

There is growing optimism that nature-based solutions can play a critical role in addressing societal challenges and support sustainable development.¹ The critical role of nature in our economies, livelihoods and well-being have been highlighted by the landmark Dasgupta Review.² But in the UK we are yet to halt nature's decline.³

In the UK, despite billions of pounds of taxpayer money being spent annually on land management and environmental protection,⁴ ecosystems continue to degrade and biodiversity is still being lost.⁵ To make matters worse, action on adaptation to climate change has not kept pace with the worsening reality of climate risk.⁶

The funding gap to deliver the UK's nature-related targets is a minimum of £44 billion over the next ten years.⁷ Public funding and philanthropy will remain critical to achieving these targets. But it is clear that we will not deliver on our environmental commitments if we continue to rely on these sources of funding alone.

¹ IUCN Director General's open letter to Members ahead of UNEA5.2; <https://www.iucn.org/news/secretariat/202202/iucn-director-generals-open-letter-members-ahead-unea52>

² Dasgupta, P. (2021), *The Economics of Biodiversity: The Dasgupta Review*. (London: HM Treasury), *Headline Messages*.

³ Department for Environment Food and Rural Affairs, *Nature recovery green paper: protected sites and species*, March 2022; https://consult.defra.gov.uk/nature-recovery-green-paper/nature-recovery-green-paper/supporting_documents/Nature%20Recovery%20Green%20Paper%20Consultation%20%20Protected%20Sites%20and%20Species.pdf

⁴ National Audit Office, *Departmental Overview 2019-20 Department for Environment, Food & Rural Affairs February 2021*.

⁵ Natural England, JNCC, Natural Resources Wales, NatureScot & Northern Ireland Environment Agency (2021) *Nature Positive 2030 – Summary Report*. JNCC: Peterborough. ISBN: 978-1-866107-636-6.

⁶ Climate Change Committee, *Independent Assessment of UK Climate Risk*, 16 June 2021; <https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/>

⁷ eftec, Rayment Consulting (2021) *The Finance Gap for UK Nature*; <https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2021/10/The-Finance-Gap-for-UK-Nature-13102021.pdf>

These reforms will catalyse private investment in nature-based solutions helping to:

- address the challenges facing our food system,
- leverage public funding for greater environmental gains;
- deliver an integrated response to achieving net zero;
- ensure that local communities benefit.

Markets for nature and the environmental services nature provides, have the potential to harness the capabilities and resources of the private sector to efficiently deploy capital and encourage the innovation needed. But environmental markets must be well-designed and governed to prevent 'greenwash' and ensure they deliver real environmental improvement.

In its response to the Dasgupta Review of The Economics of Biodiversity the UK Government committed to working with the Financing UK Nature Recovery coalition to 'develop a roadmap scaling up high-integrity environmental markets in the UK'.⁸

This Report has been Informed by the views and contributions of over 300 experts from more than 50 business, government, and environment organisations across the UK, it sets out a framework and recommendations to modernise regulation, leverage public expenditure and secure large-scale private investment in nature recovery.

Delivering this Report's recommendations will enable environmental markets to become of major driver of nature and economic recovery across the UK, and enable us to be 'the first generation to leave the environment in a better state than we found it'⁹.

By establishing high-integrity environmental markets the UK also has the opportunity to provide a blueprint for mobilising private finance on a global scale, to help address two of the most significant challenges faced by current and future generations.

Figure 1 – The role of Nature-Based Solutions



Address the challenges facing our **food system**, including better integrating nature with agriculture, making food production more resilient in the face of climate change and economically more sustainable for farmers.



Accelerate the transition to **public funding for public goods** to deliver quantified environmental improvement and better value for taxpayers' money;



Deliver an integrated response to **net zero through nature-based solutions** that maximise the environmental outcomes from nature-based solutions;



Ensure that **local communities benefit** from the economic and employment opportunities from the transition to net zero and nature positive.

⁸ HM Treasury, The Economics of Biodiversity: The Dasgupta Review, Government response, July 2021.

⁹ <https://www.gov.uk/government/publications/25-year-environment-plan>

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EXISTING INITIATIVES	84

ABOUT THIS REPORT

This Report is for UK governments, business and the finance sector, as well as local government and communities.

This Report:

- outlines a **Vision** for private investment in nature through environmental markets,
- sets out the **Barriers** to achieving this vision
- defines a **Framework** for action

This Report provides **Recommendations** and a **Roadmap** for how to deliver the Framework in a timely, consistent and coordinated way, to enable environmental markets to be scaled up across the UK.

The Report describes:

- the key role for governments in guiding and facilitating action by business and the community, by establishing the institutional architecture and governance needed to underpin ongoing market integrity;
- how businesses can deliver both on their individual commitments to reducing their direct impact on nature, and, with support from the finance sector, take collective action to address the institutional failures driving nature's decline;
- the opportunity for environmental organisations to expand the opportunities for private investment through the development and delivery of a pipeline of nature-based projects;
- how well-designed market mechanisms will support local communities to participate in, and benefit from, private investment in nature.

VISION

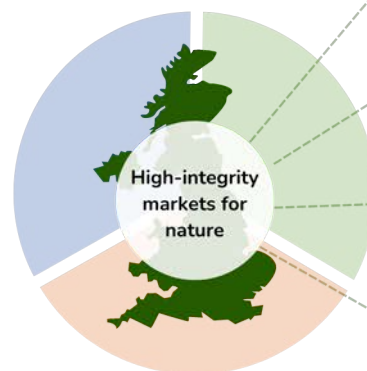
Our vision is that: **high-integrity markets for nature-based environmental services will become a major driver of nature recovery across the UK.**

By 2030:

- Farmers and other landholders will routinely participate in markets to supply nature-based projects that improve the natural environment. Projects supplied will be integrated with agricultural production and other land uses on farms and across the landscape;
- UK businesses will be active buyers in markets for environmental services to meet both regulated and voluntary environmental obligations, providing a strong driver for investment in nature recovery;
- Governments and philanthropic organisations will be strategic buyers of environmental services to help meet local environmental improvement targets where there is insufficient private sector demand;
- Design, delivery and maintenance of nature-based projects will be a major economic activity and a significant source of local employment;
- Regulators will be advising what is required to improve the environment and allowing the market to identify how best to achieve it;
- Consistent data will be publicly available on the state of the natural environment at a local level;
- There will be a high level of public trust in environmental markets and clear evidence that real environmental outcomes are being delivered;
- The UK's environmental markets will be seen as a blueprint for how to integrate action on climate change and nature recovery, and mobilise private finance.

Figure 2 – A vision for Nature's Recovery in 2030

Putting nature and its recovery onto a sustainable financial path



BY 2030 ...



Environmental markets will unlock private investment in nature
Private investment in nature of £1 billion per year.



Businesses will respond to clear policy signals
Businesses actively participating in environmental markets to meet nature positive commitments.



Landholders will benefit from supplying nature-based projects
Landholders delivering nature-based projects through local catchment markets.



UK will demonstrate global leadership in mobilising finance to support nature's recovery
Successful delivery of nature-based projects through well-designed, high-integrity markets for nature.

BARRIERS TO PRIVATE INVESTMENT

Current approaches to regulation and public funding for the environment present substantial barriers to environmental market development. Specific barriers to private investment in nature recovery in the UK are:

- limited sources of revenue from nature to fund investment at the scale required
- lack of a coherent framework for ensuring market integrity
- mis-aligned economic and environmental regulation
- financial disincentives to investment
- limited expertise and capacity within supply chains for nature-based projects.

Together these barriers mean that there is insufficient certainty for most investors to price and manage the risk of investing in nature over the long term. As a result, the risks of investment at scale currently outweigh the returns. A robust framework is needed to build confidence in environmental markets, realise their economic, social and environmental potential and provide assurance that investment in nature-based solutions in the UK is not 'green washing'.

FRAMEWORK FOR HIGH INTEGRITY MARKETS

The framework needed to address the barriers to investment and establish the foundations for high-integrity environmental markets is detailed in Part B of this Report. A summary of the framework is illustrated below.

Figure 3 – Summary of the Framework for High Integrity Environmental Markets



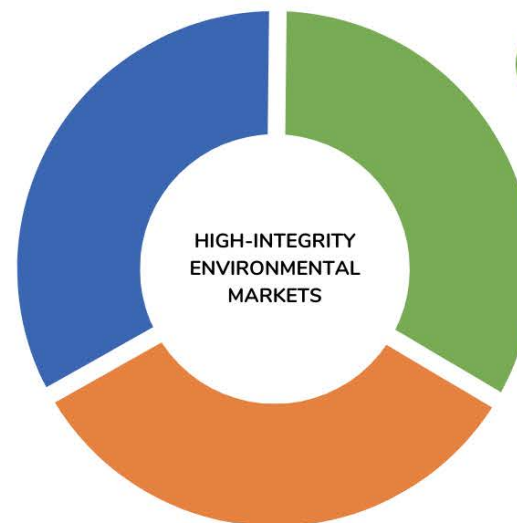
MARKET DESIGN

A clear policy framework coupled with the right incentives and institutional architecture will build business confidence in investing in nature to meet regulatory commitments and voluntary obligations.



MARKET GOVERNANCE

Clear standards and accreditation processes will provide assurances that nature-based projects are delivering real environmental outcomes while providing a trusted currency for trade in environmental services.



MARKET OPERATION

Market infrastructure, rules and contracts will facilitate fair and efficient trade in environmental services to ensure public and private investment in high-quality nature recovery projects in the right locations for communities and the environment.

HIGH LEVEL RECOMMENDATIONS

The following high-level recommendations set out what is required to deliver the Framework and realise the Vision

MARKET DESIGN

1. Translate long-term national environmental targets into local nature recovery targets.
2. Use public funding to buy accredited environmental services through environmental markets.
3. Establish new demand-side drivers for nature recovery.
4. Reform economic and environmental regulation to incentivise more efficient delivery of environmental outcomes.
5. Establish a governance and institutional architecture for UK environmental markets.

MARKET GOVERNANCE

6. Establish a system of standards for quantifying the environmental services from nature.
7. Establish an accreditation mechanism for nature-based environmental services.
8. Improve the data needed to facilitate efficient environmental market operation.

MARKET OPERATION

9. Provide funding and capital for projects to demonstrate investment-scale revenues.
10. Develop and test frameworks for local prioritisation, administration and leveraging public funding.
11. Establish market infrastructure including registries, platforms, tools, and templates to facilitate efficient market operation.
12. Convene a cross-sectoral Task Force to coordinate and report on the delivery of the Framework.

Detailed recommendations and how they combine are set out in Part D of the Report.

ROADMAP

A Roadmap for delivering the Framework through to 2030 is set out in Part D which builds on legislated targets, existing reforms and future reviews. The goals for the three key elements of the roadmap and the destination are illustrated below.

Figure 4 – Roadmap goals for UK Nature Recovery

BY 2030

MARKET DESIGN



A coherent system for local environmental improvement with strong incentives for nature recovery, facilitated by outcome based regulation and a modern institutional architecture.

MARKET GOVERNANCE



Standards and accreditation processes for nature-based solutions that are both precautionary and proportionate, supported by consistent and accessible environmental data at a local level.

MARKET OPERATION



Efficient markets for different environmental services bring suppliers and buyers together through accessible environmental market infrastructures, underpinned by expertise and effective supply chains.

HIGH-INTEGRITY MARKETS FOR NATURE

UK NATURE RECOVERY



Farmers supplying nature-based projects alongside agriculture



Businesses buying competitively priced nature-based environmental services.



Governments directing public investment in nature through environmental markets



Local economies benefitting from private investment in nature recovery



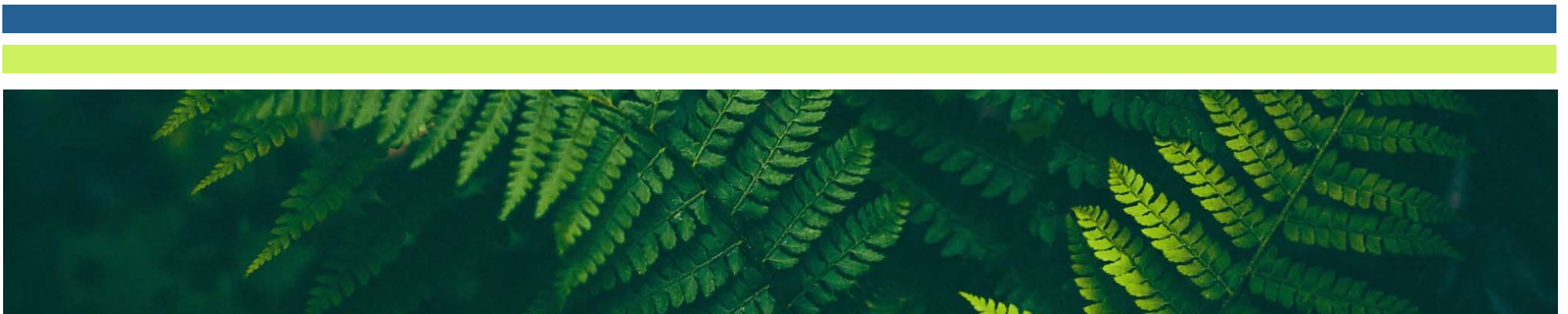
UK environmental markets a global blueprint for action on nature's recovery

PART A: BARRIERS TO INVESTMENT AND THE ROLE OF MARKETS FOR NATURE

This part sets out the significant range of barriers to private investment in nature. While individually these barriers may not be insurmountable, for many nature-based projects they combine to make the risks of investment greater than the potential returns.

This part also sets out the role of formal market structures and trading mechanisms in:

- valuing nature and the services it provides;
- standardising the quantification of these services;
- ensuring that landholders receive fair payments for using land to provide these services; and
- providing incentives for integrating nature with agricultural and other land uses.



BARRIERS TO INVESTMENT

The main obstacle to private sector investment in nature at scale is not a lack of available capital.

It is simply that under current policy and regulatory settings, the risks of investing in nature at scale outweigh the returns.

There are four principal reasons for the lack of available capital:

- the systemic undervaluation of nature and the absence of drivers for the private sector to invest in its conservation, restoration and management, means that there are **limited sources of revenue from nature to fund investment**;
- the uncertainty and complexity created by the lack of coherence between the approach to environmental regulation, existing public funding mechanisms, and incentives, means that there are **significant disincentives for investment in nature-based projects**;
- the lack of an institutional architecture and robust market governance including approved standards for measuring and accrediting nature-based projects, means that **investors do not have sufficient certainty to price and manage risk over the long term**; and
- the limited capacity of the current supply chain to deliver a robust and reliable pipeline of nature-based projects means that **projects cannot be readily aggregated to investment scale**.

Each of these barriers and how they impact on private investment are outlined in further detail below.

REVENUE

Private investment requires reliable sources of revenue

Public funding and philanthropy are insufficient to pay for the scale of nature restoration required. It has been estimated that the finance gap to meet the UK's nature-related outcomes is at least £44 billion over the next ten years, with the gap for protecting and restoring biodiversity alone being £19 billion.¹⁰

Figure 5 - Finance gap by location (2022-2032)¹¹



The main obstacle to private investment in nature is not a lack of access to capital, rather it is the lack of reliable sources of revenue for the environmental services provided by nature to deliver a financial return on the capital required.

In his strategic steer to the UK Infrastructure Bank, the Chancellor recognised the potential role for the UKIB to play in environmental markets but highlighted the need for investments in nature to 'be in line with [the bank's] investment principles, including the investment being intended to deliver a financial return'.¹²

Although nature-based projects deliver both public and private benefits, there are currently limited private sector buyers for nature-based environmental services and therefore insufficient revenues to fund the level of investment in natural capital required.

¹⁰ eftc, Rayment Consulting (2021) The Finance Gap for UK Nature.

¹¹ <https://www.greenfinanceinstitute.co.uk/wp-content/uploads/2021/10/The-Finance-Gap-for-UK-Nature-13102021.pdf>

¹² https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1061776/Strategic_steer_to_the_UK_Infrastructure_Bank_180322.pdf

AGRI-ENVIRONMENT SCHEMES

Existing schemes systematically undervalue land use for nature

Existing and proposed agri-environment schemes are structured to provide funding for activities, rather than acting as a buyer in a market for environmental services that would provide an ongoing source of revenue for landholders.

Schemes such as woodland creation typically pay for the cost of establishment and an initial period of maintenance but do not provide payments for ongoing land use. This systematically undervalues land use for nature unless landholders are also able to obtain payments for the environmental services that are delivered by the land use into the future.

Land used for nature needs to generate an income for landholders

Schemes that require permanent land-use change without allowing landholders to obtain sufficient funding for future land use and maintenance, can have the effect of converting land from a productive asset into a future liability. The risk of negative land values is a fundamental barrier to investment.

Schemes also do not generally accommodate geographic variation when valuing specific environmental services, for example the high value of habitat for biodiversity or natural flood mitigation in particular locations. This results in underinvestment in nature-based solutions in high impact locations unless landholders are able to sell these particular environmental services through local market mechanisms.

PAYMENTS FOR PRIVATE BENEFITS

Carbon funding alone is insufficient

There are limited circumstances in which landholders can obtain payments for the private benefits delivered by using their land for nature. The main environmental benefit for which there is an established private market in the UK is nature-based carbon offsets. Markets for nature-based carbon offsets are currently limited to woodland creation and peatland restoration¹³. However, the carbon price is both insufficient to fund the scale of projects needed to restore nature across the UK and creates the risk of perverse outcomes driven by global demand for carbon offsets at the expense of the local value of nature.

Some buyers of nature-based carbon offsets are prepared to pay a higher price for carbon credits that demonstrate additional benefits such as biodiversity. However, there is no transparent or consistent approach to quantifying and these additional benefits, and bundling services such as biodiversity gain and water quality improvement with carbon reduces the efficiency of supply of the individual environmental services.

¹³ In England, work on a range of other nature-based carbon standards has been funded through the Natural Environment Investment Readiness Fund.

Halting nature's decline is only the first step

Although mechanisms are being developed to enable the private sector to pay landholders for nature-based projects that deliver particular environmental outcomes, these mechanisms are primarily designed to offset harm, eg water pollution and biodiversity loss. These schemes may halt nature's decline but will not make a substantial contribution to its restoration.

There is no economy-wide mechanism to address the impacts on nature from broader economic activity such as food production and water supply, and no incentives for the private sector to make the shift to nature positive production and operation. As outlined above, public funding alone is insufficient to bridge this gap.

DISINCENTIVES

The absence of a coherent policy and regulatory framework for investing in nature-based projects means that there are significant disincentives to private investment which include:

- the current approach to environmental regulation;
- stacking policy, tests for additionality and co-funding;
- unclear boundaries between regulated requirements and voluntary action;
- uncertain rights of landholders to sell environmental services from their land; and
- misaligned economic incentives for landholder and third parties to invest in nature recovery.

CURRENT ENVIRONMENTAL REGULATION

Environmental regulation across the UK has evolved over many years, strongly influenced by EU frameworks. In many cases the approach to environmental regulation is highly prescriptive,¹⁴ and has been 'guided as much by concerns about possible future legal challenge over decision making, as it is by the actual impact of the activity'.¹⁵

This approach has meant that regulators have been less focused on defining the outcomes required to improve the environment and monitoring progress towards these outcomes and instead focused on the detail of *how* and *where* specific actions should be taken. In the absence of scientific certainty and with authorities and agencies having overlapping responsibilities, this has added substantial uncertainty, time, cost and complexity to developing nature-based projects.

¹⁴ See for example the level of prescriptive detail provided to water businesses by the Environment Agency under the Water Industry National Environment Programme in England.

¹⁵ Department for Environment Food and Rural Affairs, *Nature recovery green paper: protected sites and species*, March 2022 p15; https://consult.defra.gov.uk/nature-recovery-green-paper/nature-recovery-green-paper/supporting_documents/Nature%20Recovery%20Green%20Paper%20Consultation%20%20Protected%20Sites%20and%20Species.pdf

There is a need for regulators to focus on ‘what will improve the environment and support nature’s recover in local geographies’,¹⁶ and allow the market to identify how and where these outcomes can be most efficiently and effectively delivered. Regulators recognise this challenge but in many cases are constrained by the existing regulatory framework.

**Case Study:
Outcome-based
Environmental
Regulation – the
need for a
different
approach to
regulation**

In response to the scale of England’s environmental challenges and the cost of living crisis, Frontier Economics and Wessex Water have proposed a shift to Outcome-based Environmental Regulation (OBER) for the water sector.¹⁷ The OBER proposal recognises that water catchments are subject to multiple market failures and that environmental regulation in the water sector is:

- fragmented across different sectors;
- prescriptive;
- output focused; and
- not based on systems thinking.

OBER is based on developing outcome-based measures and setting targets that enable water companies to deliver the most efficient solutions across all outcomes, and develop appropriate funding and incentive mechanisms to support delivery. They propose a regulatory “sandbox” to test OBER in the next regulatory cycle from 2025-30.

¹⁶ Department for Environment Food and Rural Affairs, *Nature recovery green paper: protected sites and species*, March 2022 p5; https://consult.defra.gov.uk/nature-recovery-green-paper/nature-recovery-green-paper/supporting_documents/Nature%20Recovery%20Green%20Paper%20Consultation%20%20Protected%20Sites%20and%20Species.pdf

¹⁷ Ong, A and Cuttle, C, November 2021, Frontier Economics: Outcome based Environmental Regulation: enabling the water sector to make its contribution to the 25 Year Environment Plan.

STACKING, ADDITIONALITY AND CO-FUNDING

Land used for well-designed nature-based projects can deliver multiple environmental services, for example improvements in biodiversity and water quality, carbon sequestration and flood mitigation. Farmers are used to producing and selling multiple products from the use of their land, for example meat, wool and milk from sheep grazing, or wheat and straw from arable land use.

Farmers routinely make land use decisions in response to the combination of market prices for each of their agricultural products. Markets for environmental services will enable landholders to make land use decisions in response to the combination of market prices for each of the environmental services delivered by different types of nature-based project.

However, there is significant policy uncertainty about whether environmental markets will be allowed to operate in this way, or whether restrictions will be placed on the environmental services landholders can sell from a particular nature-based project. This uncertainty is a major barrier to private investment.

When a nature-based project is accredited for the environmental services it delivers, there is a need to ensure that the credits issued represent real environmental improvement. To provide confidence in these markets, the nature-based project that generates the environmental services must be 'additional', in other words would not otherwise have occurred. A lack of clarity and consistency around what tests for additionality should be required and their economic justification are creating further uncertainty.

A similar lack of clarity and coherence in relation to principles for co-funding projects where public and private finance is combined is also deterring landholder and investors.

UNCLEAR BOUNDARIES

A number of existing environmental regulations create unclear boundaries between what is a regulated requirement on a landholder and what is voluntary action.

Regulation should not promote free riding

For example, planning regulations in some parts of England require housing developers to mitigate the additional nutrients that will be discharged into a catchment in the wastewater from the new homes. If a landholder enters into a private contract to plant a woodland to reduce nutrients in that catchment, it is unclear whether they are able to sell the unregulated carbon, biodiversity and flood mitigation services that are also delivered. Policy that prevents a landholder from doing so would significantly increase the cost of nutrient mitigation, reduce market efficiency and result in free riding.

Regulatory baselines are uncertain

A further example relates to uncertain rules requiring farmers to manage diffuse sources of pollution from their land and how this affects the baseline for voluntary action. Regulations that require risks of diffuse pollution to be managed by landholders but do not specify a particular standard are open to interpretation. This creates a high level of uncertainty for landholders about the value of voluntary action and a disincentive to invest in nature-based projects. In particular, requiring landholders to achieve progressively higher levels of compliance as a condition of participation in voluntary markets should not be used as a substitute for following a proper process to set enforceable regulatory standards.

UNCERTAIN RIGHTS***Unclear rights to environmental services***

Agri-environment schemes that offer incentives for land uses and activities rather than payments for specific environmental services, create uncertainty of ownership of the rights to the environmental services delivered, which is a major barrier to investment. For example, incentives to plant new hedgerows which do not clearly allocate the rights to the environmental services these hedgerows may deliver.

Uncertain rights to the environmental services are compounded by unclear or complex rules that define and regulate the relationship between public and private funding of nature-based solutions. For example, it is unclear what tests for additionality will apply for co-funding projects and tests that have their origins in grants schemes are not designed to take into account the multiple environmental services delivered by nature-based projects, nor the role of markets in establishing efficient prices for these projects.

MISALIGNED INCENTIVES***Unequal tax treatment and valuation of land for nature***

Uncertainty around how land use for environmental services will be treated by the UK tax and land valuation systems is currently a barrier for farmers and landholders to invest in nature conservation and restoration. Using land to provide habitat for nature and deliver environmental services, should be treated in the same way as land use for agriculture and forestry. This is particularly important given the inter-generational consequences of decisions to invest in nature-based projects.

Revenue streams from land uses that deliver environmental services should be able to be taken into account in land valuation. Tenant farmers should also be incentivised to work with landowners to make improvements to land that deliver environmental services and share in the benefits.

Economic regulation is driving short term investment

In the water sector, the current approach to the economic regulation of water businesses also creates significant barriers to investment in nature-based solutions. Unlike asset-based solutions which are funded over the life of the asset through regulated returns, nature-based solutions are required to be funded from operating expenditure within each regulatory price cycle which presents significant additional financial risk in terms of revenue uncertainty.

UNCERTAINTY AND RISK

It is hard to price the risk of nature-based solutions

Nature-based projects are a relatively new and still largely unfamiliar category of asset for the finance and investment community. However, nature-based assets are beginning to be created through long-term contracts with landholders, to use and manage their land in ways that deliver valuable environmental services.

The UK finance sector is a global leader in pricing and managing risk of investment in long-term assets such as commercial property and infrastructure. However, the lack of an institutional architecture, approved data and standards for measuring and accrediting nature-based projects, and agreed market rules and infrastructure are major barriers to investment.

INSTITUTIONAL ARCHITECTURE

An independent environmental market regulator is essential

There are currently no defined or agreed organisational roles and responsibilities for the design, governance and operation of environmental markets across the UK. This is a particular problem for nature-based projects that are supplying environmental services to meet different regulated requirements. As a result, project developers have to navigate a complex array of siloed policy and regulatory requirements, many of which were inherited from the EU.

The absence of clear responsibilities is compounded by significant differences in how current regulations are interpreted and what is needed to secure approval of both the project and the environmental services being delivered.

STANDARDS AND DATA

There are no agreed principles or coordination for standard development

With the exception of the voluntary Woodland Carbon and Peatland Codes, there are a lack of agreed technical standards for nature-based projects, or standardised methods for measuring and accrediting the environmental services they deliver. Although some standards for nature-based environmental services are being developed,¹⁸ there is no coordination of standard development, or an agreed set of principles that should apply. For example, there are no overarching principles for measuring nature-based carbon from different ecosystems.

¹⁸ For example; the UK Farm and Soil Code being developed by Farming and Wildlife Advisory Group South West; the Wilder Carbon Standard being developed by Kent Wildlife Trust; a UK Saltmarsh Carbon Code being developed by the UK Centre for Ecology & Hydrology; the Hedgerow Code being developed by the Allerton Research & Educational Trust;

The transaction costs of navigating a growing number of different standards may limit market development

Incompatibility between different standards may limit the capacity for nature-based projects to be accredited for the full range of environmental services they deliver. It may also increase the risk of free riding and double counting.

The transaction costs of navigating a growing number of uncoordinated and potentially inconsistent standards will limit market development as investors cannot be certain of the quality of environmental credits from different types of nature-based project.

General guidance places the majority of the burden of scientific uncertainty on project proponents.

Where environmental services are being delivered to meet regulatory obligations, suppliers bear the onus of demonstrating to the satisfaction of the relevant regulator the quality and quantity of environmental services that a project will deliver. Although regulators issue guidance to assist project developers, guidance is typically of a general nature, is open to interpretation, and places the majority of the burden of scientific uncertainty on project proponents.

As a result, nature-based projects typically require bespoke design and accreditation, often adding very significant time and cost to both project development and on-going monitoring.

Access to decision grade data is adding cost

In addition, there is a systemic lack of readily accessible decision-grade data on the current condition of the natural environment across the UK, which adds substantially to the cost of determining project baselines and monitoring performance.

RULES AND INFRASTRUCTURE

Infrastructure is required to support market participation

There are no standard rules for participating in environmental markets or market infrastructure to support participation. For example, some markets such as woodland carbon have established price guarantees, whilst others such as biodiversity net gain supply guarantees are being developed. Lack of clarity about the role governments intend to play in price setting and underwriting supply is a major source of uncertainty.

Standard contracts are needed to reduce legal costs

The absence of standardised contracts for nature-based projects and the environmental credits they generate is a source of inefficiency and cost for landholders, project investors and buyers of environmental services. In the absence of standards, the finance sector has yet to develop the suite of financial products and services to support project owners and investors to assess and manage their long-term risks.

Registries are needed for transparency and assurance

Finally, there is a lack of market infrastructure such as registries and trading platforms to provide the level of transparency and assurance that markets for environmental services are high integrity and delivering real environmental improvement.

SCALE

The absence of markets is limiting scale

Individual nature-based projects, even those delivered at a landscape scale, are not of sufficient financial value to attract institutional investment. The absence of efficient market mechanisms to develop and aggregate projects to investment scale limits sources of finance to smaller investors or means that intermediaries are required to develop and aggregate projects. Communities, landholders and other stakeholders need to be confident that markets are designed to share the value created through trade in environmental markets fairly, rather than see the majority of the benefits captured by intermediaries.

The limited sources of revenue, disincentives to investment, uncertainty and risk outlined above are major constraints on the supply chain of available projects. This is compounded by a lack of capacity and expertise that is limiting potential suppliers, including farmers and community organisations, from responding to growing demand.

SUPPLY CHAIN CONSTRAINTS

Although some nature-based projects (typically on land with low economic value) can be financed by the limited revenues streams currently available such as woodland carbon, many projects need to secure revenues from the full range of environmental services they deliver to make business sense for landholders. In the absence of clear obligations and workable standards and accreditation mechanisms, the time and cost of developing these projects, including quantifying and monetising these services, risks 'confining nature-based solutions to a cottage industry'.¹⁹

LACK OF CAPACITY AND EXPERTISE

The use of land for nature-based projects is an important opportunity for landowners, community organisations, and potentially tenant farmers, to diversify their sources of revenue at a time of significant change and uncertainty in UK agriculture. However, there are currently very limited sources of expertise to support the design, development and delivery of high-quality projects. This includes expertise on assessing land for potential opportunities, the design of nature-based projects to maximise environmental services, and the development of viable long-term business models.

Demonstrating the revenue potential of nature-based projects is a critical step towards private investment, and may facilitate bilateral agreements on a project-by-project basis. However, it is clear from other environmental markets that formal market structures and trading mechanisms are necessary to achieve such investment at scale.

¹⁹ Stacking and Bundling Workshop Participant, 22 April 2021.

THE ROLE OF MARKETS**Markets for environmental services are not new.**

Markets for environmental services are not new. Billions of pounds have been invested around the world through environmental markets for air and water quality improvement, clean energy, biodiversity and carbon pollution reduction.

Well-designed and regulated markets can value nature and the environmental services it provides. Markets can provide a mechanism for those who benefit from nature to pay a fair price for the services that nature supplies. In economic terms, markets can internalise the costs of conserving nature and maintaining the services delivered, helping to rebalance the demand for the products and services from nature, with its capacity to supply.

In practical terms, markets for nature can provide incentives for landholders to protect, enhance and restore habitat and deliver nature-based solutions for problems such as water and air pollution, floods and increasing greenhouse gas emissions. Markets will encourage innovation in nature-based project development and reward efficient ways of monitoring and verifying delivery. Markets for nature also have the potential to reward investment in freshwater and marine environments.

**Case study:
White
Certificate
Markets – The
importance of
quantifying and
certifying
outcomes.**

When competitive markets for electricity were created around the world in the 1990s, they were designed to promote efficient electricity supply. It was assumed that consumers would respond to the price of electricity by reducing their demand where it was efficient for them to do so. However, the value of investment in energy efficiency was hard to capture as many of the benefits of energy efficiency flow to other users from the lower cost of transmission and distribution, and to society more generally through reduction in greenhouse gas emissions. In addition to these 'positive externalities' the cost of identifying and implementing energy efficiency measures for individual consumers was very high – even for large energy users, due to a lack of access to information and expertise.

In 2005, Italy created the world's first 'white certificate' scheme to promote investment in energy efficiency in the electricity market. The scheme established a demand for increasing levels of energy efficiency, and introduced a standardised approach to quantifying and certifying energy efficiency projects and activities. Trade in white certificates takes place on a dedicated platform. The public company, Gestore Servizi Energetici (GSE) operates the market and carries out monitoring, verification and control activities. Over its first 12 years, over 56 million white certificates were traded which represented 62 % of the emissions reduction in electricity industry.²⁰ Similar schemes also operate in other countries including France²¹ and Australia²².

As was the case with energy efficiency, nature benefits us all, but current mechanisms do not properly reward investment in its conservation, restoration and enhancement. As a result, we are systematically underinvesting in nature and its restoration.²³ In the absence of an efficient market framework, the cost of quantifying the environmental services delivered by nature will be very high, and there are limited incentives for innovation in nature restoration.

²⁰ https://www.eceee.org/library/conference_proceedings/eceee_Summer_Studies/2019/3-policy-and-governance/white-certificates-in-italy-will-it-overcome-the-huge-challenges-it-has-been-facing-in-the-last-three-years/

²¹ <https://www.iea.org/policies/1854-white-certificate-scheme-obligation;>

²² <https://www.esc.vic.gov.au/victorian-energy-upgrades-program;> <https://www.energy.nsw.gov.au/government-and-regulation/energy-security-safeguard/energy-savings-scheme>

²³ Above note 2.

Case study: Nutrient Neutrality – the need for efficient market mechanisms

Across the UK local planning authorities have an obligation to ensure that new development does not impact on Natura 2000 protected sites.²⁴ Nutrient pollution is a major problem across a number of these sites. In England, developers are required to demonstrate that new housing will not impact on these sites by increasing nutrient loads discharged from existing water treatment facilities. Typically, this requires developers to deliver nutrient mitigation as a condition of planning approval. Agricultural land use change,²⁵ and nature-based projects such as the creation of wetlands and woodlands are potential sources of nutrient mitigation.

However, in most areas there is no market mechanism that facilitates the supply of nutrient reduction credits. Although guidance is available,²⁶ there are also no standardised methods for quantifying mitigation from nature-based projects that can reduce nutrients from the catchment. And there is no accreditation body that can certify the mitigation from projects to provide assurance to Local Planning Authorities.²⁷

Consequently, the House Builders Federation estimates that the construction of up to 33,000 homes may be delayed, and across England developers face long, complex and costly processes to obtain planning approval. Furthermore, where suppliers of mitigation have received approval they are able to charge very high prices for nutrient reduction credits, and potentially large areas of agricultural land may have to be taken out of production if nature-based projects that can be integrated with agriculture are not approved.

Harnessing market forces to restore nature is not without risk. However, lessons learnt from international and domestic experience can inform market design, governance and operation, to ensure that these risks are effectively managed and create confidence for both investors and the community.

Market conditions that will facilitate private investment include clear and legally binding targets, well defined and approved technical standards, and efficient mechanisms to accredit both market participants and project delivery, supported by independent institutions with responsibility for market governance, including auditing the performance of market participants.

²⁴ Natura 2000 is a network of protected areas covering Europe's most valuable threatened species and habitats.

²⁵ For example, taking land used for high nutrient arable farming out of agricultural production.

²⁶ Natural England, Nutrient Neutrality Generic Methodology *Issue 1: February 2022*

²⁷ Natural England provides advice to Local Planning Authorities on proposed mitigation on a case by case basis but does not formally accredit mitigation projects.

Governments have a critical role in ensuring an institutional architecture is in place for high integrity markets

Case study: Agriculture Biodiversity Stewardship Market Act 2022 - The importance of independent market governance

In 2011, Australia passed legislation to provide a legal framework to enable land managers to earn carbon credits by changing land use or management practices to store carbon or reduce greenhouse gas emissions.²⁸ In addition to setting out the market rules, the legislation established an independent statutory authority responsible for developing the technical rules, administering the scheme and making emissions reduction purchases on behalf of the government. In 202/21, the Market for Australian Carbon Credit Units (ACCUs) was estimated to be \$226 million (AUD).²⁹

Building on the success of the ACCU market, in 2022 new legislation was introduced to provide a nationally consistent framework to describe and verify biodiversity benefits, create a new form of tradeable personal property in the form of a biodiversity certificate and establish assurance and compliance systems to provide market certainty.³⁰

Key features of the new legislation include:

- a fit and proper person test for market participants
- biodiversity integrity standards
- protocols that set out how a biodiversity project is to be carried out and the circumstances in which a biodiversity certificate will be issued for a project.
- the legal status of biodiversity credits and the process for transferring credits.
- powers to audit project proponents and take enforcement action for non-compliance, including issuing civil penalties.
- the capacity for the government to purchase biodiversity certificates.

The scheme will be overseen by the same independent statutory authority that oversees the ACCU market.

A key feature of the market design for both white certificate markets and the Australian markets for Carbon Credits and Biodiversity Certificates is that they are not tied to development approvals or other statutory offset mechanisms. This allows for these markets to flexibly and efficiently respond to multiple demand drivers including voluntary and government purchasing, as well as development offsetting and meeting other statutory requirements.

²⁸ *Carbon Credits (Carbon Farming Initiative) Act 2011*

²⁹ Reputex, *The State and Trends of the Australian Carbon Market in 2021*.

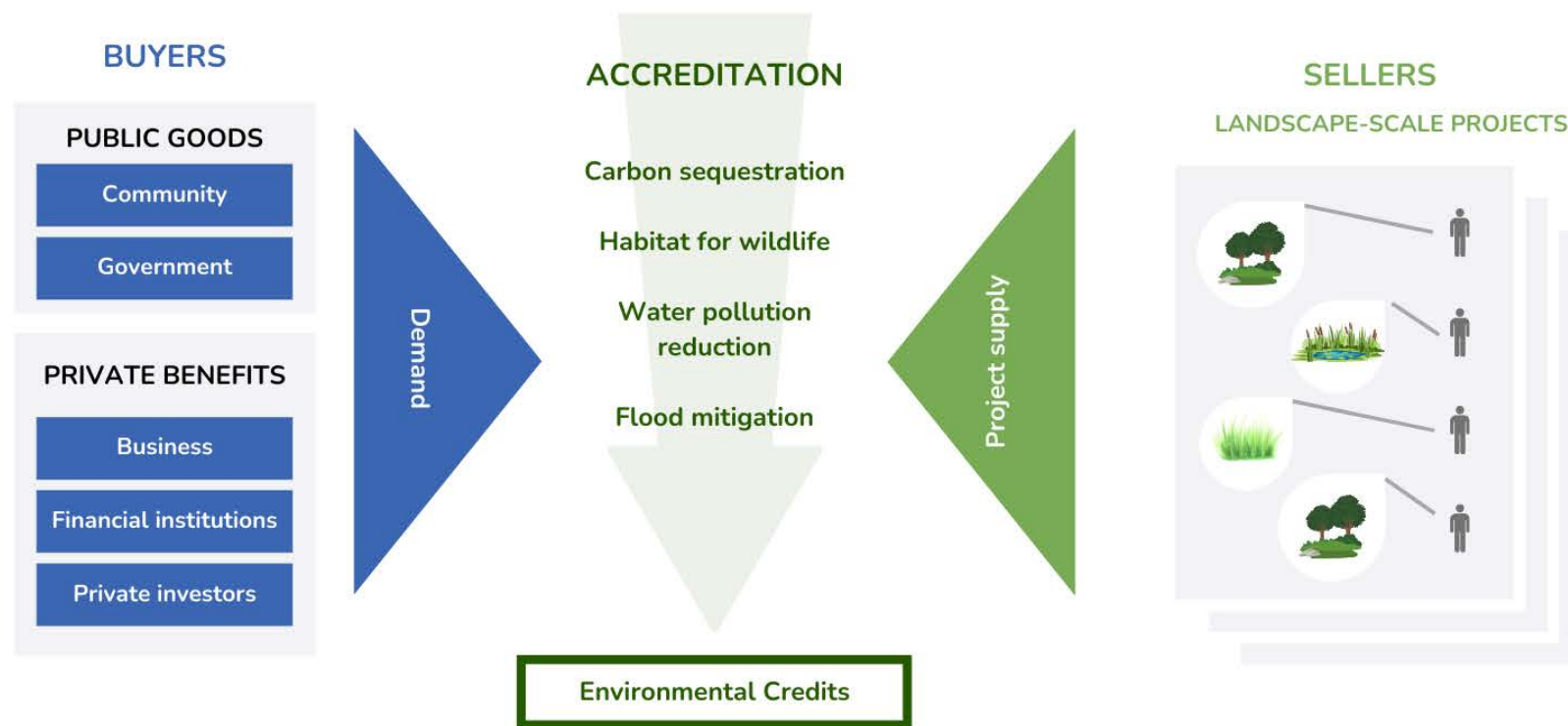
³⁰ *Agriculture Biodiversity Stewardship Market Act 2022*.

MARKETS FOR NATURE

Establishing markets for nature-based projects such as the creation of woodland, wetlands and other habitats can provide a mechanism to integrate nature with rural and urban land uses, to deliver multiple environmental services such as improvements in air and water quality, flood risk mitigation and carbon sequestration.

Markets for nature-based environmental services can bring landholders and managers together with buyers of these services, to establish prices and contracts for their delivery. The way in which markets for nature-based environmental services can work is illustrated in Figure 6.

Figure 6 - Market Mechanism for Nature-Based Environmental Services³¹



³¹ Source: Adapted from Accelerating Investment in Nature-Based Solutions, Broadway Initiative. July 2020

An efficient approach to nature-based project development is also required to facilitate market operation. The typical phases of project development are illustrated in Figure 7.

Figure 7 - Phases of nature-based project development³²



The quantity of the environmental services delivered by a nature-based project in a given location need to be measured and accredited using the best available science. Transparent market standards and processes are needed to provide confidence in the environmental outcomes being delivered.

Nature-based projects also need to demonstrate that there is a demand for the environmental services and the expected cash flows to become investment ready. Access to a source of patient or concessionary capital is often required for projects to demonstrate the revenues before they are able to attract capital investment at scale.

Currently, each of these steps is highly bespoke, complex and time consuming due in no small part to the barriers outlined above. If the UK is to attract a significant share of the global capital available for nature-based solutions, a robust framework is needed to reduce these barriers and long-term risks, and create the right incentive for private sector investment.

³² Financing UK Nature Recovery, Broadway Initiative, Green Finance Institute, Finance Earth, November 2020

PART B: VISION AND FRAMEWORK FOR HIGH-INTEGRITY ENVIRONMENTAL MARKETS

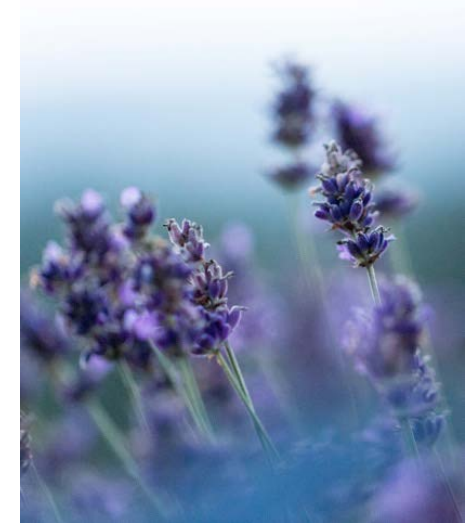
This part sets out a vision for high integrity environmental markets and the role they can play in nature recovery. It also sets out a framework to address the barriers to investment outlined above and establish the foundations for high-integrity markets for nature-based environmental services.



VISION

The vision is for **high-integrity markets for nature-based environmental services to become a major driver of nature recovery across the UK** by:

- establishing prices for nature-based environmental services that reward farmers, land managers and other sectors for integrating nature with agriculture, forestry, and infrastructure;
- providing on-going incentives to use and manage land to deliver nature-based environmental services and build resilience to climate change;
- substantially lowering the transaction costs of planning and delivering nature-based solutions to meet new and existing targets;
- matching different types of private sector capital to investment opportunities that meet different levels of expected risk and return;
- providing an efficient mechanism to deliver value for money for public funding and regulated expenditure alongside private investment;
- mobilising the data, knowledge and expertise required to deliver nature-based solutions across the UK that make a significant contribution to regional and local economies.



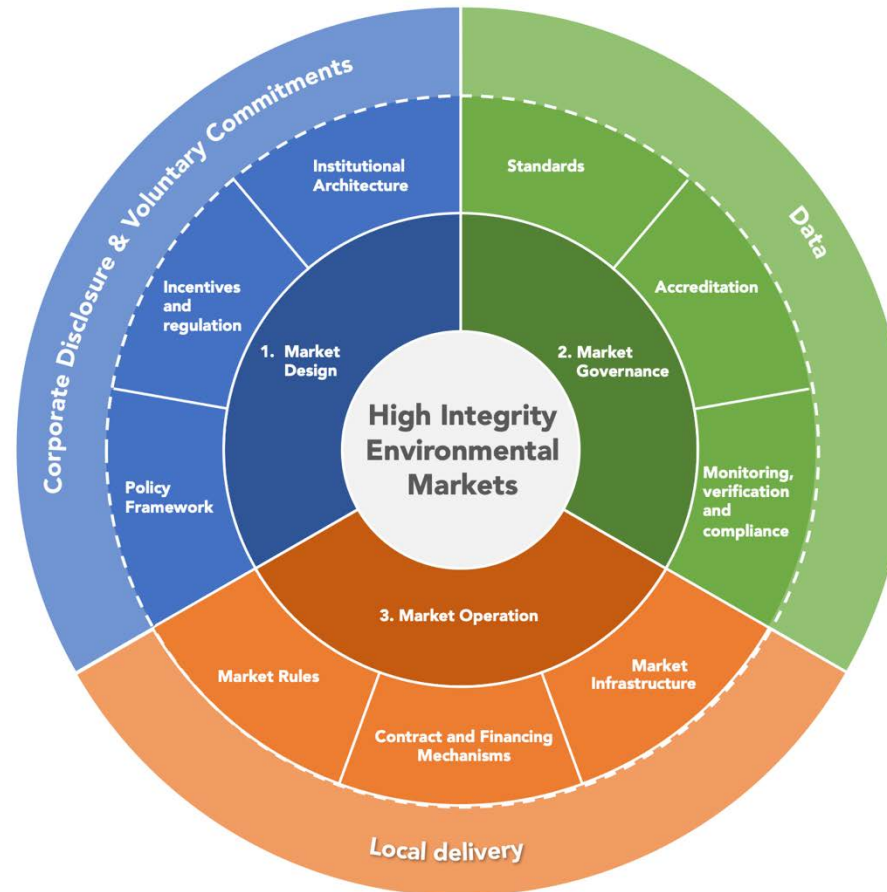
By 2030:

- Farmers and other landholders will routinely participate in markets to supply nature-based projects that improve the natural environment. Projects supplied will be integrated with agricultural production and other land uses on farms and across the landscape;
- UK businesses will be active buyers in markets for environmental services to meet both regulated and voluntary environmental obligations, providing a strong driver for investment in nature recovery;
- Governments and philanthropic organisations will be strategic buyers of environmental services to help meet local environmental improvement targets where there is insufficient private sector demand;
- Design, delivery and maintenance of nature-based projects will be major economic activity and a significant source of local employment;
- Regulators will be advising what is required to improve the environment and allowing the market to identify how best to achieve it;
- Consistent data will be publicly available on the state of the natural environment at a local level;
- There will be a high level of public trust in environmental markets and clear evidence that real environmental outcomes are being delivered;
- The UK's environmental markets will be seen as a blueprint for how to integrate action on climate change and nature recovery, and mobilise private finance.

FRAMEWORK

The Framework in Figure 8 sets out the key elements required for the UK and its devolved administrations to establish high-integrity markets for nature and the environmental services nature provides. The Framework has been informed by examples from international and domestic environmental services markets.

Figure 8 - Investment Framework for High-Integrity Environmental Markets



Each of these elements, why they are needed, and how they interact to provide the assurance required by the public, investors, landholders, and managers are described in the following pages.

MARKET DESIGN

The widespread institutional failure highlighted in the Dasgupta Review, illustrates the need for well-designed markets to provide a price signal for nature and the environmental services nature delivers. Policy frameworks need to establish integrated goals for nature recovery and environmental improvement that drive outcome-based approaches to both public funding for public goods and environmental regulation. Institutional architecture is needed that facilitates efficient market operation and provides assurance of high-quality delivery, that complements clear corporate disclosure requirements and voluntary commitments.

POLICY FRAMEWORK

Effective policy frameworks for nature recovery need to acknowledge the institutional failures driving nature's decline and the cost and consequence of inaction for current and future generations. Policies also need to recognise that, as with climate change, nature's recovery is not something that can be addressed by governments alone.

Statutory targets for nature recovery can help support the mobilisation of private capital but need to be translated into:

- output targets such as defined types and quantities of habitat creation and restoration, backed by well-defined rights to the environmental services delivered by nature-based projects;
- sector-specific plans with appropriate obligations for the delivery of nature recovery targets, integrated with other environmental improvement goals; and
- mechanisms to facilitate trading in nature-based environmental services to reduce the cost of meeting targets for both nature recovery and climate change.

In order to provide incentives for private investment at scale, the policy framework will also need to:

- progressively eliminate perverse outcomes from other policy measures that are driving nature's decline;
- develop policy interventions that incentivise private investment by reducing project risk and increasing project returns;
- remove disincentives for land use for nature such as regulatory barriers and tax treatments; and
- ensure that value created is fairly shared by market participants and communities.

The value created for national, local, and regional economies and the contribution to social policy objectives of individual UK administrations such as 'levelling up' and a 'just transition' through investment in nature recovery should also be reflected in these policy frameworks.

The policy framework also needs to promote competition for the delivery of nature recovery, to maximise the outcomes delivered with the resources available. To achieve this, a significant shift is needed to increase the use of market mechanisms to allocate public funding and target regulated expenditure for environmental improvement.

INCENTIVES AND REGULATION

Stable and predictable incentives and regulatory frameworks for nature-based solutions are essential to facilitate efficient investment. The opportunity created by Brexit to establish integrated targets for the environment needs an equally decisive shift to outcome-based approaches to both public funding for public goods and environmental regulation.

Incentives and regulation focused on outcomes are needed to recognise there are different ways of improving the natural environment and that nature-based solutions are inherently place specific. An outcome-based approach is also required to encourage innovation and enhance the transparency of where investment is needed.

Long-term clarity on the level of contribution required from different sectors, businesses, and public institutions to facilitate on-ground delivery of targets for nature recovery, climate change and environmental improvement are needed. Mechanisms to fund the delivery of these obligations in a way that balances the need to take action with the financial impact on different sectors are also required. Delivery targets and mechanisms need to cover as much of the economy as possible to avoid imposing unreasonable burdens on individual sectors. Nonetheless, sectors that stand to benefit from improvements in nature will have the increased incentives to invest.

Mechanisms that can leverage public investment to attract private finance are also needed to maximise the outcomes delivered by public funding. In particular, regulated expenditure requirements for water businesses and planning requirements for land development need to contribute to integrated strategies for local delivery of nature recovery and building climate resilience.

INSTITUTIONAL ARCHITECTURE

The institutional architecture for the establishment and oversight of markets for nature needs to provide clarity on the respective roles of Governments, regulators and nature-based service providers, and coherence with the increasingly interlinked policy context for climate change and nature recovery post Brexit.

To keep barriers to entry low and limit transaction costs as far as possible, the need for market participants to engage with multiple institutions and processes needs to be minimised through standardisation and streamlined processes that can be applied flexibly across the UK's diverse landscapes.

Investor confidence needs to be maintained by ensuring that market rules, standards and accreditation processes are developed and applied in a transparent and predictable way. Public and community confidence needs to be maintained by ensuring that investment meets local priorities, and that market operation and project delivery is subject to effective compliance mechanisms. Market design and governance arrangements therefore need legitimacy, expertise, and capability.

Market Design must be focused on the efficient delivery of high-quality environmental outcomes and be properly informed by economic, scientific, financial, regulatory, and legal expertise. Market Governance, in particular standard setting and accreditation processes, needs to be established and maintained at arms-length from environmental regulation. Environmental regulators nonetheless need to actively participate in standard development to provide assurance that nature-based projects that meet approved standards will comply with regulatory requirements.

Governments need to establish a transparent process to authorise market design and governance arrangements in addition to providing a mechanism for their on-going oversight.

**Case study:
Scottish Interim
Principles for
Responsible
Investment in
Natural Capital
– government
setting the
agenda**

Scotland has recognised that the transition to net zero and nature positive will have impacts on businesses, communities and individuals. By publishing its Interim Principles for Responsible Investment³³ it is both promoting dialogue and setting the agenda for responsible investment in nature-based projects in Scotland.

The Interim Principles highlight the importance of investment that:

- delivers integrated land use
- delivers public, private and community benefit
- demonstrates engagement and collaboration
- is ethical and values led
- is of high environmental integrity
- supports diverse and productive land ownership

CORPORATE DISCLOSURE AND VOLUNTARY COMMITMENTS

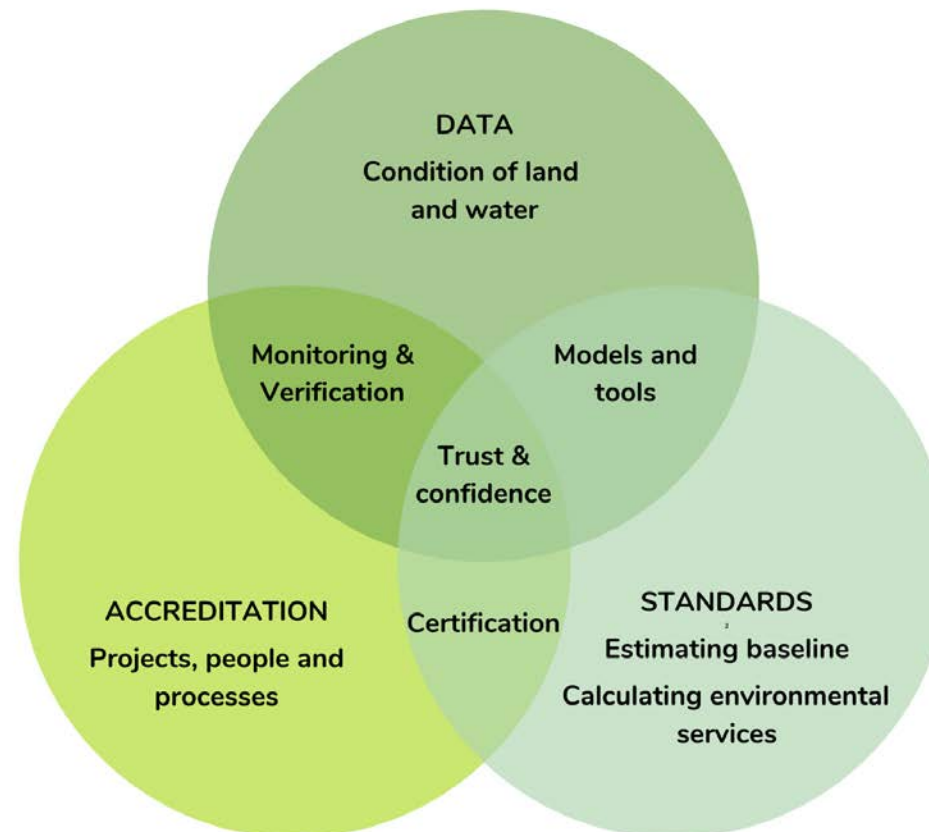
Markets for nature need to be designed to factor in emerging corporate disclosure frameworks and reporting requirements such as those being developed by the Task Force on Nature-related Financial Disclosures (TNFD). Markets for nature that support businesses to meet both voluntary commitments and regulated obligations will help generate the scale of investment required. Markets will help facilitate positive action by business to meet shareholders expectations, including reduction in greenhouse gas emissions where nature-based solutions also contribute to carbon sequestration.

³³ Scottish Government, Interim Scottish Government Principles for the Responsible Investment in Natural Capital, 31 March 2022; <https://www.gov.scot/publications/interim-principles-for-responsible-investment-in-natural-capital/>

MARKET GOVERNANCE

A market governance system comprising high quality-data, rigorous standards, and properly authorised accreditation processes are critical for accelerating investment in nature. The governance system must provide assurance that money is going to the right projects, in the right places and to the level of quality that will deliver nature recovery. Effective market monitoring and compliance systems are also critical for establishing trust and confidence in markets for nature. How these elements interact is illustrated below:

Figure 9 - Data, Standards and Accreditation and their role in delivering trust and confidence in markets for nature



DATA

Data on environmental services that can be delivered by different types of nature-based projects in different locations is required to target investment. Consistent data on the baseline condition of biodiversity, land, and water is needed, along with models and tools to estimate the impact of different land-use changes.

Systems for maintaining and making available datasets and models required by the standards for calculating the environmental services from nature-based projects are also required, along with clear responsibilities and adequate resources for maintaining these systems.

STANDARDS

Standards are essential to the efficient operation of markets. They are an important mechanism for communicating technical information, facilitating trade, and are recognised as a key driver of competition and innovation.³⁴

Suppliers of nature-based projects need to know the technical standards to which projects must be implemented if they are to be accredited for the environmental services they deliver. Measurement standards are also required to enable project developers to know how the quantity of different environmental services delivered by nature-based projects will be measured.

Standards for different types of nature-based project and different environmental services need to be developed in a consistent and coordinated way to:

- make it easier to design projects that optimise the full suite of environmental outcomes for a given location;
- reduce the complexity of navigating different standards based on different sets of principles; and
- reduce the cost of quantifying different environmental outcomes.

Coordination of standard development is critical to avoid confusion in the market. Clear processes for developing, approving, and managing standards provides certainty, predictability and lowers the cost for both buyers and sellers.

Designated standards³⁵ are particularly important for efficient market operation to enable nature-based projects that demonstrate compliance to obtain a 'presumption of conformity'³⁶ with the relevant regulations.

³⁴ Centre for Economics and Business Research, *The Economic Contribution of Standards to the UK Economy*, June 2015

³⁵ A designated standard is a standard, developed by consensus and recognised by government as satisfactory for meeting particular regulatory obligations.

³⁶ A 'presumption of conformity' enables a business that can demonstrate compliance with a designed standard to be presumed to be compliant with the relevant regulations, unless regulator provides evidence to the contrary.

ACCREDITATION

In environmental markets, accreditation is the process of:

- assessing projects against approved standards to quantify the environmental service that projects will deliver;
- certifying the results of this process; and
- issuing tradeable and redeemable credits that represent a person's rights to these services.

Rigorous accreditation of nature-based projects and the environmental services they deliver is critical to the development of high-integrity environmental markets. Efficient matching of buyers and sellers requires assurance that nature-based projects have been delivered to approved standards in order to provide confidence in the value of the resulting credits that are being traded.

The environmental services delivered by these projects need to be certified using a common and widely accepted currency of units, linked to targets and regulatory requirements.³⁷ Organisations and individuals who have the authority to confirm that projects have been delivered to the required standards are needed to support market operation. Transparent accreditation processes are needed to provide buyers and sellers with confidence in the value of the credits generated by projects.

MONITORING, VERIFICATION AND COMPLIANCE

Once nature-based projects have been accredited, there is a need for monitoring to ensure that they are maintained to the required standards. There is also a need for the environmental outcomes expected to be delivered by projects to be verified and for any non-compliance with the required standards to be identified and addressed.

Monitoring, verification, and compliance systems need to be risk-based to maximise resources for on-ground delivery and avoid burdening low-risk projects with costs that outweigh the benefits.

³⁷ For example, in England biodiversity gain is measured in tradeable biodiversity units that represent the value of the habitat creation or improvement delivered, while nutrient pollution reduction is typically measured and traded in credits for that represent 1kg/annum of total nitrogen and/or phosphorus reduction.

MARKET OPERATION

Efficient market operation needs to be underpinned by clear markets rules, transparent contract and financing mechanisms and the market infrastructure that support market governance and oversight.

MARKET RULES

Effective markets for environmental services such as renewable energy (UK³⁸), air quality (US³⁹), and water quality (Australia⁴⁰) have clear rules for market participation and mechanisms for price setting. Markets for nature similarly need clear market rules that can also operate at a range of different scales and across the range of environmental services delivered by nature-based projects.

CONTRACT AND FINANCING MECHANISMS

As in carbon markets, certainty and efficiency will be promoted by contracts for nature-based projects and the environmental credits they generate with standardised terms that also provide flexibility to accommodate the unique features of individual projects and the circumstances and needs of buyers and suppliers. Similarly, nature-related financial products need to be developed and tested to help build investor confidence in nature as an asset class and reduce the transaction costs for project suppliers to get their projects to investment readiness.

MARKET INFRASTRUCTURE

In the same way that Financial Market Infrastructures are systemically important to the integrity of the financial system,⁴¹ Environmental Market Infrastructures are needed that support market operation and provide both financial and environmental transparency.

Market registries (operated by a government agency or an independent and trusted third party) are needed that track nature-based projects and the environmental credits that they generate to ensure that the same environmental service from a project is not sold to multiple buyers.

A standard taxonomy of environmental credits is also needed along with a transparent process for registering credits issued to enable buyers and regulators to have confidence that a credit represents actual on-ground delivery of the environmental service that has been paid for.

Online trading platforms and price-setting mechanisms are also required to bring buyers and sellers together and create a fair-trading environment that minimises the risk of misuse of market power by large buyers or sellers.

³⁸ <https://www.ofgem.gov.uk/environmental-and-social-schemes/renewables-obligation-ro>

³⁹ <https://www.epa.gov/airmarkets>

⁴⁰ <https://www.qld.gov.au/environment/coasts-waterways/reef/reef-credit-scheme>

⁴¹ <https://www.bankofengland.co.uk/financial-stability/financial-market-infrastructure-supervision>

LOCAL DELIVERY

Markets for nature need to be set within a local delivery framework because, aside from the global challenge of climate change, the environment is inherently place-based. Outcomes and phased delivery targets for an area, catchment or region need to be developed through an iterative process that translates national goals into local targets through a process that identifies and takes into account local needs and opportunities.

Nature recovery strategies need to highlight opportunities to achieve these targets through nature-based projects that:

- deliver at a landscape-scale;
- provide multiple environmental services across policy priorities;
- integrate with agriculture and forestry; and
- complement local development goals including urban green infrastructure and local development plans for housing.

Mechanisms are also needed to integrate public and private funding at a local level to identify and deliver a suite of projects that maximise overall environmental benefits.

Scaling up nature recovery needs data, knowledge, and expertise to be mobilised at a local level. Capacity and capability will be needed in areas that are not traditionally associated with nature conservation and restoration.

Landholders and managers will need access to specialist expertise to design nature-based projects that optimise environmental outcomes and to develop a supply chain of projects that demonstrate the cash flows to fund investment that can be aggregated to investment scale.

Market mechanisms also need to ensure that the benefits of investment in nature are shared. Markets for nature that stimulate a nature recovery industry can make an important contribution to wider social and economic goals such as a 'just transition' and 'levelling up'.

PART C: RECOMMENDATIONS

This Part sets out high-level and specific recommendations for delivering the Framework. The recommendations are grouped into the three main elements of the Framework, with the key links and dependencies between the recommendations illustrated in Figure 7. Detail of each recommendation and its rationale are also provided.



SUMMARY OF RECOMMENDATIONS

MARKET DESIGN

Demand drivers

1. Translate long-term national environmental targets into near-term local delivery targets
 - 1.1 Develop integrated area-based targets for nature recovery and environmental improvement
 - 1.2 Develop local community benefit policies for investment in nature-based solutions
2. Use public funding to buy accredited environmental services through environmental markets.
 - 2.1 Test and trial landscape scale environmental service payment systems
 - 2.2 Establish market-exchange mechanisms for biodiversity, carbon and water quality credits
3. Establish new demand-side drivers for nature recovery
 - 3.1 Launch a voluntary Nature Positive Commitment for UK business in 2023
 - 3.2 Quantify nature-related impacts and dependencies across the UK economy
 - 3.3 Develop nature positive goals and sector targets

Sector policy review

4. Reform economic and environmental regulation to incentivise more efficient delivery of environmental outcomes.
 - 4.1 Update the valuation and tax treatments of land used for nature and environmental services
 - 4.2 Modernise existing water quality regulation to focus on outcomes and facilitate catchment-based delivery of nature-based solutions
 - 4.3 Reform the financial regulation of the water industry to incentivise efficient investment in environmental improvement.

Institutional architecture

5. Establish a governance and institutional architecture for UK environmental markets
 - 5.1 Commission and publish a market governance and institutional options paper by the end of 2022
 - 5.2 Consult on a preferred option by March 2023
 - 5.3 Agree a joint implementation plan for environmental market governance by June 2023

MARKET GOVERNANCE

Standards

6. Establish a system of standards for quantifying the environmental services from nature
 - 6.1 Establish principles and core requirements for all nature-based standards
 - 6.2 Create a nature-based carbon standard
 - 6.3 Fund the development of priority standards for other environmental service

Accreditation

7. Establish accreditation mechanisms for nature-based environmental services
 - 7.1 Establish accreditation mechanisms for nature-based projects
 - 7.2 Establish clear policies for stacking credits for different environmental services
 - 7.3 Apply baseline environmental and legal additionality tests to all nature-based projects

Market Data

8. Improve the data needed to facilitate efficient environmental market operation
 - 8.1 Identify and prioritise data gaps to be filled
 - 8.2 Design and implement outcome-based monitoring for nature-based solutions

MARKET OPERATION

Market development

9. Provide funding for projects to demonstrate investment scale revenues
 - 9.1 Make investment readiness grants available for nature-based project developers
 - 9.2 Establish sources of patient and concessionary capital for investment scale demonstration projects

Local delivery frameworks

10. Develop and test frameworks for local prioritisation, administration and co-funding
 - 10.1 Establish principles for local governance of public funding for nature recovery
 - 10.2 Trial committing public funding for area and catchment-based portfolios of nature-based projects to be co-funded by business and private investment.
 - 10.3 Establish training and skills development programmes to support participation in markets for nature

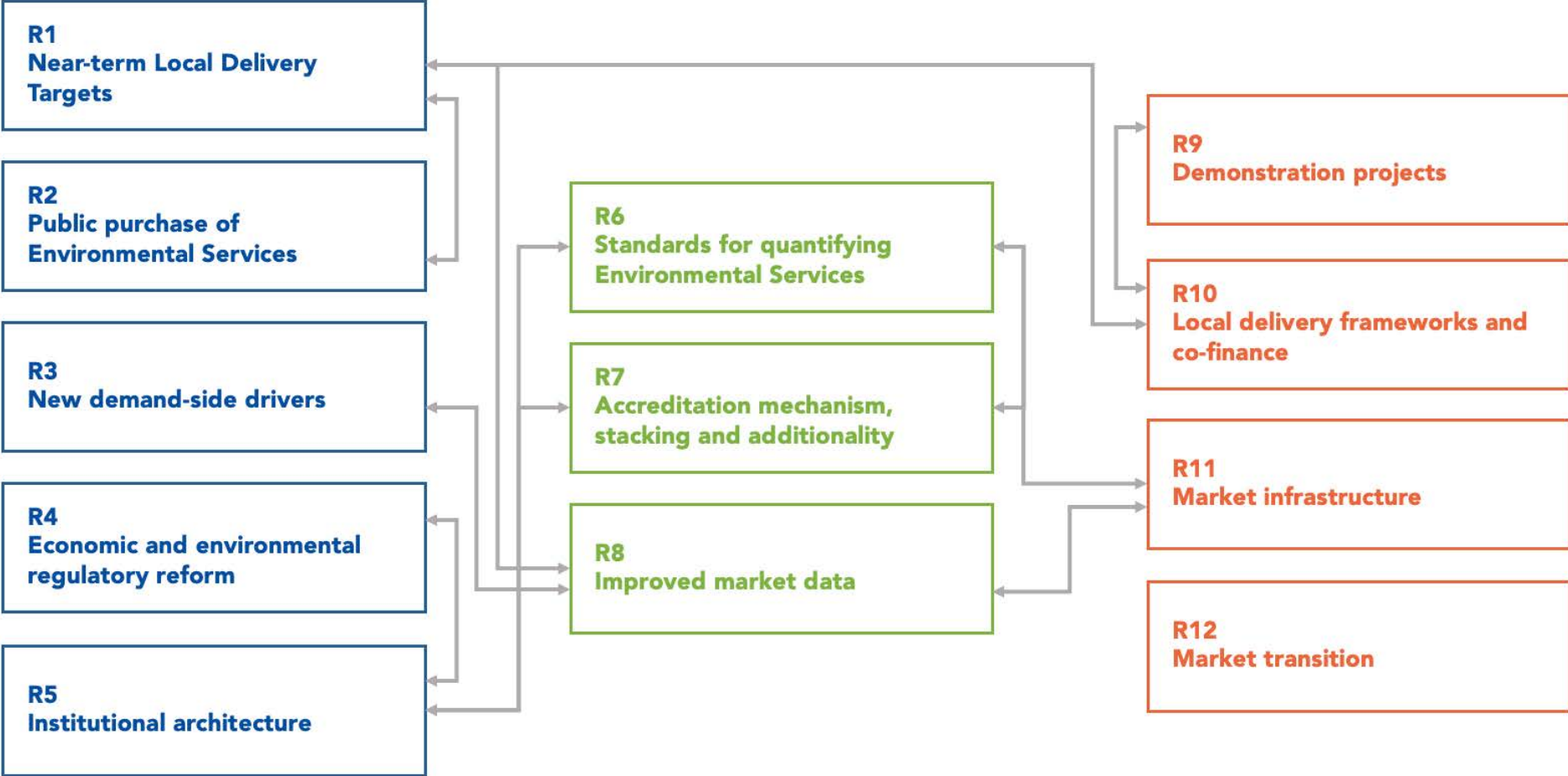
Market infrastructure

11. Establish market infrastructure including registries, platforms, tools, and templates to facilitate efficient market operation.
 - 11.1 Develop and implement a nature-based project and credit registry system
 - 11.2 Establish standard environmental market rules and operating procedures
 - 11.3 Develop and publish a code of common terms and template contracts for delivering nature-based projects.

Market transition

12. Convene a cross-sectoral Task Force to coordinate and report on the delivery of the Framework
 - 12.1 Develop country-specific implementation plans to align and integrate the delivery of the Investment Framework with wider policy objectives.
 - 12.2 Establish a transition team to facilitate the delivery of the Roadmap drawn from across the four UK administrations.

Figure 10 - Key links and dependencies between high-level recommendations



RECOMMENDATIONS

This section sets out the recommendations for each element of the Framework, including providing a description of each high-level and sub-recommendation, an explanation of their rationale, and the links to other recommendations.

MARKET DESIGN

1. Translate long-term national environmental targets into local nature recovery targets.
2. Use public funding to buy accredited environmental services through environmental markets.
3. Establish new demand-side drivers for nature recovery.
4. Reform economic and environmental regulation to incentivise more efficient delivery of environmental outcomes.
5. Establish a governance and institutional architecture for UK environmental markets.

DEMAND DRIVERS

Recommendation 1: Translate long-term national environmental targets into near-term local delivery targets

What is it?

Minimum targets need to be set for the types and areas of habitat creation and restoration needed in each catchment and local government area across the UK to meet national long-term nature recovery and environmental improvement targets.

Targets should be set for a period of up to 5 years using the best available science that is currently available, to provide the certainty and incentives required for farmers, community organisations, local authorities, and businesses to work together to develop initiatives that build nature's resilience across the landscape.

The targets should be based on systematic modelling of the co-benefits of achieving these habitat creation and restoration targets in terms of the environmental services that will be delivered, and their contribution to local social, economic, and environmental improvement across the UK.

These targets and the underpinning modelling should be used to inform discussions on strategies for rural land use,⁴² environmental improvement plans,⁴³ and purchasing priorities for public funding,⁴⁴ to ensure nature recovery is properly integrated into land use planning, funding and decision making.

⁴² For example, Recommendation 9 of the National Food Strategy to create a 'Rural Land Use Framework based on the three-compartment model'

⁴³ For example, environmental improvement plans required by section 8 of the Environment Act 2021 in England, and management plans for River Basin Districts across England, Wales and Scotland.

⁴⁴ Including successors to agri-environment schemes and funding for specific outcomes such as woodland creation and peatland restoration.

Recommendation 1.1: Develop integrated area-based targets for nature recovery and environmental improvement.

Outcome-based targets for nature recovery and environmental improvement should be developed for each catchment and local government area across the UK to provide a blueprint for public and private investment.

Environment and nature agencies in each administration should commit to a joint programme of work to support landholders and local communities with data and analysis to establish these targets within 3 years.

Recommendation 1.2: Develop local community benefit policies for investment in nature-based solutions

Develop model local community benefit policies for public and private investment in nature-based solutions, that can be applied locally to market governance arrangements and rules for environmental markets.

The policies could be designed as an extension of existing policies⁴⁵ or involve development of new policies to ensure that the benefits of the UK's transition to nature positive are shared by local communities and contribute to addressing inequality.

Policies could be enforced by local authorities and other regulators as a condition of approving market mechanisms that supply accredited nature-based projects and environmental services.

Rationale

Long-term national targets for improving individual aspects of the environment⁴⁶ need to be translated into an integrated set of near-term targets at an area⁴⁷ and catchment level, to ensure efficient delivery and avoid perverse outcomes driven by single-outcome targets, programmes, and funding silos.

Governments have ambitious plans for nature-based solutions and their contribution to delivery across a range of environmental outcomes.⁴⁸ However, area-based strategies for nature-recovery that highlight geographic opportunities for nature recovery,⁴⁹ will on their own not provide the level of certainty required for market development.

⁴⁵ For example, Scotland's Just Transition Policy, the Welsh Government's Wellbeing of Future Generations (Wales) Act 2015 and related policies, and the Westminster Government's forthcoming Levelling Up White Paper.

⁴⁶ Such as the proposed targets in England; Defra. *Consultation on environmental targets*, 16 March 2022; https://consult.defra.gov.uk/natural-environment-policy/consultation-on-environmental-targets/supporting_documents/Environment%20Targets%20Public%20Consultation.pdf

⁴⁷ Geographic areas may include local government areas, National Parks, Areas of Outstanding Natural Beauty.

⁴⁸ See for example; Scottish Government, *Delivering Economic Prosperity: Scotland's Strategy for Economic Transformation*, March 2022; HMG, *The Ten Point Plan for a Green Industrial Revolution*, November 2020.

⁴⁹ For example, section 106 of the Environment Act 2021 only requires Local Nature Recovery Strategies to include a statement of biodiversity priorities and a local habitat map for the strategy area.

Targets for nature-recovery need to be set together with local targets for other aspects of environmental improvement such as air and water quality. The absence of integrated targets, based on the best available science, is a significant barrier to the development of a pipeline of nature-based projects for investment. A lack of integrated targets creates the risk of undesirable long-term changes to UK landscapes through for example incentives to deliver carbon sequestration in isolation from other environmental outcomes.

The challenges involved in setting targets and delivering nature-based solutions have been highlighted, including gaps in information and research.⁵⁰ However, the need for agencies and regulators to focus 'more on outcomes and recovery'⁵¹ has also been highlighted.

A policy commitment to developing integrated targets across the UK is required to galvanise the consolidation and application of existing science and give effect to the principle that where there are threats of serious or irreversible environmental damage a lack of scientific certainty should not be used as a reason to postpone action.⁵² Targets should be set on the basis that they will be updated as the science improves (see Recommendation 8).

Clear targets for scale of habitat creation and restoration required and the timeframe over which these targets need to be delivered, are needed to incentivise farmers, community organisations and local authorities and businesses to invest the time and resources to work together to develop landscape-scale initiatives.

Minimum targets for habitat creation and restoration at a catchment and area level are also needed to ensure that public funding for nature recovery is broadly distributed across the UK, while accommodating both the need and opportunity to focus resources in priority areas for nature recovery. Integrated targets are critical to enable governments to move to buying environmental services as a driver of investment in the natural assets that deliver these services (see Recommendation 2).

A consistent coordinated process should be developed for setting these targets, including modelling of the environmental services that will be delivered. A range of tools developed for natural capital assessment and evaluation may be used for this purpose.

High integrity environmental markets need to be designed to work with communities to ensure that investment in nature recovery creates value for national, local, and regional economies and contributes to social policy objectives of individual UK administrations such as 'levelling up' and a 'just transition'.

The transition to nature positive, like the transition to net zero will impact local communities across the UK in different ways, particularly through changes in how land is used.⁵³ Investment in nature-based projects may provide significant opportunities to diversity income for rural communities and expand employment.

⁵⁰ House of Lords Science and Technology Select Committee, Second Report of Session 2021-22, *Nature-based Solutions, Rhetoric or Reality; The potential contribution of nature-based solutions to net zero in the UK*, 27 January 2022.

⁵¹ Department for Environment Food and Rural Affairs, *Nature recovery green paper: protected sites and species*, March 2022; https://consult.defra.gov.uk/nature-recovery-green-paper/nature-recovery-green-paper/supporting_documents/Nature%20Recovery%20Green%20Paper%20Consultation%20%20Protected%20Sites%20and%20Species.pdf

⁵² Defra, *Draft Environmental Policy Principles Policy Statement*, 10 March 2021; https://consult.defra.gov.uk/environmental-principles/draft-policy-statement/supporting_documents/draftenvironmentalprinciplespolicystatement.pdf

⁵³ Committee on Climate Change, *Land use: Policies for a Net Zero UK*, January 2020; <https://www.theccc.org.uk/publication/land-use-policies-for-a-net-zero-uk/>

Integrated area-based targets (Recommendation 1.1) developed through effective community engagement processes will help ensure that where possible nature recovery and environmental services are delivered alongside agricultural production. Nonetheless, policies that do lead to significant land use change also need to provide support to communities where these changes impact on local communities.

Case study: Northern Ireland Climate Change Bill – sector targets and transition support

Northern Ireland has established a legally binding target of net zero by 2050,⁵⁴ which will require widespread adoption of low-carbon farming practices and better farm productivity. It will also require more than half of the 240,000 hectares of peatland to be restored.⁵⁵

The Northern Ireland legislation also provides a Just Transition Fund for Agriculture to provide financial assistance to the sector in recognition of the significant role that change in the agriculture sector will play in achieving the net zero target.

Recommendation 2: Use public funding to buy accredited environmental services through markets.

What is it?

Government expenditure for landscape scale nature recovery should be used to buy specific quantities of particular environmental services in defined areas, to help drive private investment in the natural assets and the supply chains that deliver these services.

The quantity of different environmental services to be purchased in each area should be determined by reference to the overall environmental outcomes established by integrated local delivery targets (see Recommendation 1) and the contributions from other sectors of the economy (see Recommendation 3.3).

The quality of the environmental services should be specified by reference to approved standards for quantifying environmental services (see Recommendation 6), with the market determining the most efficient way to provide these services.

Governments should move from being centrally planned market makers, to ensuring effective market regulation of decentralised market exchanges (see Recommendation 5) with delivery accredited by registered professionals (see Recommendation 7).

⁵⁴ Northern Ireland Assembly, Climate Change (No 2) Bill.

⁵⁵ Climate Change Committee, Letter to Edwin Poots MLA, Minister of Agriculture, Environment and Rural Affairs, 24 March 2022.

Recommendation 2.1: Test and trial landscape scale environmental service payment systems

In the development of the successors to existing agri-environment schemes across the UK, governments should test and trial systems where they become buyers of environmental services through market exchanges for environmental services in specific areas or catchments.

Recommendation 2.2: Establish market-exchange mechanisms for biodiversity, carbon and water quality credits

Facilitate the development of market mechanisms to support trading in biodiversity and water quality credits, to complement existing mechanisms for nature-based carbon such as the Woodland Carbon Code.

Rationale

Government ambitions for private investment in nature recovery, such as the Scottish £1 Billion Challenge⁵⁶, and the UK target to raise at least £500 million in private finance for nature's recovery every year by 2027 and more than £1 billion a year by 2030,⁵⁷ depend on a reliable source of revenue to fund the investment.

Governments signalling their commitment to become long-term buyers of specific environmental services in defined areas can facilitate market development by incentivising the finance sector to develop both the capacity and technology to validate and rate natural capital investments in a similar way to other investments.

However, government expenditure needs to be applied in a way that does not crowd out private investment, for example by being the buyer of last resort for environmental services for which there are no other buyers.

Markets that allow credits for environmental services to be bought and sold for different durations, will also enable better matching between the investment in nature-based projects and the voluntary and regulated requirements of different businesses.

The risks involved with environmental markets requires governments to take a firm hand in overseeing the orderly functioning of the market, safeguarding the integrity of the environmental services being delivered and protecting both market participants and the public against fraud and deception (see Recommendation 5).

Establishing efficient markets for environmental services will provide businesses that don't currently have regulated obligations with a straightforward pathway to take action to address their nature related risks and impacts (see Recommendation 3).

⁵⁶ Scottish Wildlife Trust and Scottish Environment Protection Authority, The Scottish £1 Billion Challenge: Route Map from the Scottish Nature Finance Project <https://scottishwildlifetrust.org.uk/news/route-map-to-1-billion-for-nature-conservation-published/>

⁵⁷ HMG, *Autumn Budget and Spending Review 2021, A Stronger Economy for the British People*, October 2021.

Recommendation 3: Establish new demand-side drivers for nature recovery

What is it?

A system of incentives for business and the finance sector to invest in nature recovery beyond corporate social responsibility, that provides a predictable demand for accredited nature-based projects and the environmental services they deliver.

To catalyse the transition to nature positive, incentives are needed that:

- accelerate the development of markets for nature-based projects and environmental services;
- provide demand certainty for farmers and landholders to develop a robust pipeline of nature-based projects; and
- support businesses to internalise the benefits of nature into their UK supply chains through verified action and early adoption of nature-related financial disclosure.

The incentives would encourage businesses in sectors whose UK supply chains depend on nature, to transition to becoming nature positive.

Recommendation 3.1: Launch a Voluntary Nature Positive Commitment for UK business in 2023

A voluntary Nature Positive Commitment backed by UK governments should be launched in 2023. The Nature Positive Commitment would provide a market mechanism for businesses that depend on nature to set and deliver their own targets for habitat creation and restoration.⁵⁸ The market would assist:

- water companies to identify how to maximise the contribution of the obligation to their achievement of the environmental outcomes required for PR24.⁵⁹
- food manufacturers and retailers to identify how to transition their UK food supply chains to becoming nature positive; and
- other sectors that want to take early action towards becoming nature positive.

Governments should provide seed funding to be matched by business contributions, to resource an independent not-for-profit organisation to support business participation in the development of a voluntary biodiversity gain market.

⁵⁸ The Nature Positive Commitment would provide a mechanism for international businesses operating in the UK to meet their voluntary commitments, for example the World Business Council Global Goal for Nature, through verified domestic action: <https://www.wbcsd.org/contentwbc/download/13439/196253/1>

⁵⁹ Ofwat would factor the Nature-Positive Commitment into the draft methodology for PR24 to be published in summer 2022.

Recommendation 3.2: Quantify nature-related impacts and dependencies across the UK economy

To support the Nature Positive Commitment, UK governments should undertake a robust quantification of the sectoral impacts and dependencies of UK business on nature.

Quantification is needed to enable UK business to identify the scale of action needed to reduce harm (address impact risk) and invest in nature restoration (address dependency risk). This should be done in a way that can be readily translated into standard units of environmental service such as carbon sequestration, biodiversity gain or nutrient reduction.

Quantification is also needed to underpin the development of sector targets (see Recommendation 1.3) and position UK businesses to respond to global drivers such as the voluntary uptake of nature-related financial disclosures.⁶⁰

Recommendation 3.3: Develop nature positive goals and sector targets

Sector goals and targets for making the transition to nature positive are also needed to catalyse and inform market development. These goals should include:

- the types and geographic distribution of nature-based projects that would be covered (scope of the market);
- the scale of the contribution from different sectors (size of the market); and
- the timeframe over which businesses would deliver their Commitments (the market duration).

The development of these sector goals and targets should also complement work on sector targets for net zero.

Rationale

Given the scale of the gap between the level of public and philanthropic funding available and what is required to achieve UK environmental targets⁶¹, a significant new, reliable, and long-term driver of nature recovery is essential.

Long-term legally binding targets for nature recovery provide a policy signal to prevent harm and invest in nature recovery,⁶² but do not on their own provide a direct driver for investment.

⁶⁰ <https://tnfd.global>

⁶¹ eftec, Rayment Consulting (2021) The Finance Gap for UK Nature.

⁶² Wildlife and Countryside Link, A State of Nature Target: The Business Case, September 2021.

Transmission mechanisms are needed to translate nature targets into investment drivers

Case study: Decarbonising the UK economy

The UK was the first major economy to legislate a net zero target by 2050. However, reaching the target requires extensive, systematic change across all sectors of the economy.⁶³

The UK's legally binding targets for de-carbonising the economy could not be achieved without establishing transmission mechanisms to drive investment in cleaner energy supply, through for example renewable electricity generation.⁶⁴

As a result of these transmission mechanisms, emissions from the electricity sector fell by 62% between 2008 and 2018, with low carbon sources increasing to over 50% of total generation.⁶⁵

Translated through the mitigation hierarchy, these targets have generated an industry supplying carbon mitigation projects, including investment in nature-based carbon sequestration.

Legally binding targets for nature such as species abundance,⁶⁶ need a similar transmission mechanism to translate these targets into robust delivery obligations.

If targets are set based solely on the public funding available, policy goals such as protecting and enhancing stocks of natural capital,⁶⁷ and restoring nature within a generation,⁶⁸ will not be achieved.

Targets for nature need to be accompanied by strategies to finance nature recovery, that recognise that public funding will not secure the full range of outcomes being targeted.⁶⁹ Private funding and finance is needed to fill the gap, but it would be a mistake to assume that carbon funding alone will be sufficient.

Although climate change presents a growing material risk to economic activities that depend on natural systems,⁷⁰ there is no economy-wide delivery mechanism that systematically incentivises businesses to invest in enhancing the resilience of the natural assets that sustain them.

⁶³ HM Government, Industrial Decarbonisation Strategy, March 2021.

⁶⁴ Such as the target for 40GW of new offshore wind by 2030, HM Government, *Net Zero Strategy: Build Back Greener*, October 2021; https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf

⁶⁵ Climate Change Committee, The Sixth Carbon Budget Electricity Generation; <https://www.theccc.org.uk/publication/sixth-carbon-budget/>

⁶⁶ For example, Section 3, Environment Act 2021 in England.

⁶⁷ Scottish Government, Scotland's Economic Strategy, 3 March 2015; <https://www.gov.scot/publications/scotlands-national-strategy-economic-transformation/documents/>

⁶⁸ A Green Future: Our 25 Year Environment Plan to Improve the Environment; <https://www.gov.uk/government/publications/25-year-environment-plan>

⁶⁹ See for example Defra, *Environmental Land Management Scheme Outcomes*, 6 January 2022

⁷⁰ Climate Change Committee, Independent Assessment of UK Climate Risk, 16 June 2021; <https://www.theccc.org.uk/publication/independent-assessment-of-uk-climate-risk/>

The Task Force for Nature Related Financial Disclosures is developing a consistent way for businesses to identify and address their nature impacts and dependencies which over time will begin to influence shareholder investment decisions and translate into a positive driver for action. However, a driver of action is needed now.

Options such as increasing existing net gain targets for housing developers and infrastructure providers, would be disproportionate,⁷¹ impacting on housing affordability and the cost of infrastructure. And widening such mechanisms to other sectors which do not have a readily measurable impact on nature would be prohibitively costly to implement.

A voluntary Nature Positive Commitment will help establish a transmission mechanism for nature targets and assist UK businesses to benefit from the early adoption of nature related financial disclosure.

A Nature Positive Commitment should have a specific outcome focus – such as habitat creation and restoration across the country - which could in time be expanded to other mechanisms such as nutrient trading to enable business to also become Water Positive.

By using existing government backed mechanisms for verifying the delivery businesses can be confident that their actions will be recognised and that the public can be confident that the projects are delivering real environmental outcomes.⁷² Using existing mechanisms will also provide landholders with clarity about how the Nature Positive Commitment can deliver revenue streams to fund nature-based projects.



⁷¹ In England, the Biodiversity Net Gain mechanism already ensures development is nature positive.

⁷² Purchase of biodiversity units by a business would be part of an overall commitment to a transition to nature positive and not be a substitute for actions to prevent harm in its supply chain and operations.

Policy Option: Nature Positive Commitment: How could it work

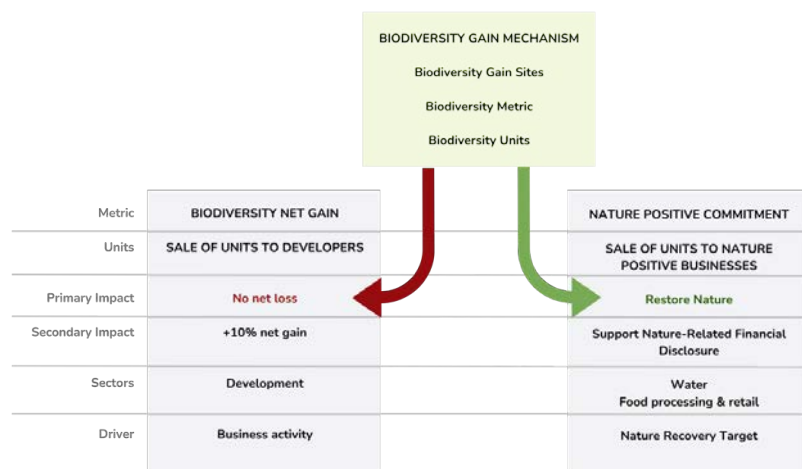
A Nature Positive Commitment would involve businesses in specified sectors voluntarily committing to purchase biodiversity credits for verified areas of habitat that have been created or restored in the UK⁷³ to meet agreed targets.

The Commitment would help provide a new source of revenue for farmers and landholders and ensure that land used for nature recovery and the delivery of environmental services is properly valued.

The Commitment would assist UK businesses to overcome the barriers to nature-based solutions, secure a competitively priced pipeline of nature-based projects and prepare for nature-related financial disclosures.

The Commitment would build on existing supply-side mechanisms. In England this would be the scheme for registering biodiversity gain sites set out in the Environment Act.⁷⁴

Figure 11 - Delivery Mechanism for a Nature Positive Commitment



Building on the mechanisms for voluntary commitments such as the Get Nature Positive initiative developed by the Council for Sustainable Business, participating businesses would set 3-5 year targets for their Nature Positive Commitment.

Land restored for nature would be registered and accredited for the quantity of habitat delivered with credits sold to businesses to meet their voluntary commitments.

The cumulative annual targets of participating businesses would provide a transmission mechanism to contribute to long-term targets for biodiversity and provide certainty for project developers to establish a pipeline of high-quality projects.

Sectors would be encouraged to set overall goals and targets that could be divided into sub-targets for particular habitats, or set for defined geographic areas (see Recommendation 3.3).

The primary impact of the Commitment would be to accelerate the development of high integrity markets for nature-based projects and the environmental services they deliver, by providing a driver for nature-based projects that are focused on restoring nature, not offsetting harm.

The phasing of the annual targets would enable businesses to progressively transition their UK supply chains to become nature positive, supporting the early adoption of nature related financial disclosure. The phasing would also be designed to limit the impact on business costs and consumer prices.

⁷³ Use of a standard metric for verifying habitat creation and restoration across the UK would enhance market efficiency. The Biodiversity Metric 3.0 developed in England could be used in the first instance. However, Devolved Administrations may choose to use a different metric, or specify modifications to the Biodiversity Metric 3.0 that would apply.

⁷⁴ Section 100 Environment Act 2021.

SECTOR POLICY REVIEW

Recommendation 4: Reform economic and environmental regulation to incentivise more efficient delivery of environmental outcomes

What is it?

A post-Brexit reform of existing economic and environmental regulations that impact on decisions to invest in nature, that levels the playing field for nature-based solutions and replaces prescriptive regulation that inhibits efficient delivery of environmental outcomes.

The reform should address three specific aspects of existing regulation in particular:

- how land is valued and taxed (for both income and capital), to remove financial disincentives to use land for nature recovery and the delivery of environmental services;
- the environmental regulation of water quality and biodiversity, to replace prescriptive input and activity-based regulation, with an outcome focused, proportionate and risk-based approach that incentivises integrated landscape scale environmental solutions; and
- the economic regulation of public utilities, to ensure that proposals for long-term investment in nature-based solutions are assessed on an equal commercial footing with asset-based solutions;

The reforms would be about better regulation not de-regulation, and should aim to fast-track delivery on the long-term policy settings needed to achieve the financial and environmental sustainability of land use across the UK. The reforms should be undertaken in conjunction with, but independent from existing regulators, and should take into account the outcomes from the forthcoming review of utilities regulators' statutory duties.⁷⁵

The reforms would have a national component to address relevant UK-wide legislation and regulation, supported by a coordinated approach to country led reform of specific economic and environmental regulations in each devolved administration.

Recommendation 4.1: Update the valuation and tax treatments of land used for nature and environmental services

The update should review and revise land valuation methods and the tax treatments for land that is used for nature-based solutions. Areas that should be reviewed and updated include the income and VAT tax treatment of landowner payments for environmental services, and the inheritance and capital gains tax treatment of land used to supply environmental services, including non-commercial woodland and habitat banks. Where land use for nature is treated differently to land used for commercial forestry and agriculture, reforms should level the playing field and remove financial disincentives to investment in nature-based projects.

⁷⁵ Department of Business, Energy and Industrial Strategy, Economic Regulation Policy Paper, January 2022.

Recommendation 4.2: Modernise existing water quality regulation to focus on outcomes

Water quality regulation should be reformed to focus on water quality improvement at a catchment level. Water quality outcomes should be set in a way that facilitate efficient solutions that deliver multiple benefits (including biodiversity, carbon sequestration and water quality). Clear regulations need to be developed based on agreed standards for measuring and accrediting the water quality improvements from nature-based solutions (see Recommendation 6 below). These nature-based solutions need to be encouraged through catchment permitting supported by an proportionate approach to monitoring and verification of the water quality outcomes achieved.

Recommendation 4.3: Reform the regulation of the water industry to incentivise efficient investment in environmental improvement.

The review should identify how the legislation and regulation of the water industry should be reformed to remove perverse incentives and facilitate efficient delivery of environmental outcomes. The review should look at the effectiveness of the overarching regulatory framework in setting and facilitating the delivery of environmental outcomes, in particular the inter-relationship between the Strategic Policy Statement (SPS), the Water Industry Strategic Environmental Requirements (WISER) and Water Industry National Environment Programme (WINEP). The review should also look at how expenditure by water companies on long-term nature-based solutions is treated by Ofwat to ensure a level playing field with asset-based solutions.

Rationale

Land is a very limited commodity in the UK. The natural assets on land and the environmental services these assets deliver need to be properly valued. However, valuation standards typically view the environment as a constraint on land use.⁷⁶ Where public money or functions are involved, government land valuations provide important signals to the market.

Public and private standards for land valuation need to be reviewed to account for the value of natural assets and environmental services these assets deliver. Any impact on local communities through increases in land values should be addressed through local community benefit policies (see Recommendation 1.2).

Inconsistent or uncertain tax treatment, including intergenerational transfer provide significant disincentive for landholders to invest in nature-based projects. Land used to provide habitat for nature and deliver environmental services needs to be treated no less favourably that land use for agriculture and forestry.

Nature-based solutions also need to be on a level playing field when it comes to economic and environmental regulation. A level playing field is critical to lower the cost of nature-based solutions and accelerate the delivery of habitat creation and restoration and maximise its contribution to biodiversity, water quality improvement, net zero and climate resilience targets.⁷⁷

⁷⁶ Royal Institution of Chartered Surveyors, RICS Valuation Global Standards – 2017.

⁷⁷ See for example, United Utilities, The Rivers Trust, PR 24: Unlocking nature-based solutions to deliver greater value;

<https://www.unitedutilities.com/globalassets/documents/pdf/pr24---unlocking-nature-based-solutions-to-deliver-greater-value.pdf>

Over the years environmental regulators have invested heavily in systems, processes and capabilities that may have been effective in meeting prescriptive requirements of EU regulation and making progress on specific areas of environmental improvement. But these have proven less effective in halting the overall decline in nature⁷⁸ and improving the environment as a whole.

While it is essential that regulators are properly funded, it would be a serious mistake to believe that the problem is solely about resources. There is a need to think differently about the role of environmental regulation and the approach of regulators in incentivising environmental improvement. Much continues to be said about the benefit of a shift to outcome focused, proportionate and risk-based regulation,⁷⁹ however in many cases current legislation limits the capacity of regulators to make the transitions in the timeframe required.⁸⁰

Incentivising innovation through outcome focused, risk-based regulation

Case study: Drinking Water Regulation

The legislative and regulatory framework for drinking water in England provides an example of an outcome focused, risk-based approach to regulation.

Under section 68 of the *Water Industry Act 1991*, water suppliers have a statutory duty to supply 'wholesome water'. Wholesome water is defined in regulation in relation to prescribed concentrations of values of various properties, elements, organisms and substances.⁸¹ The risk management process water companies are required to follow is also prescribed.⁸² However, water companies are then able to use their expertise and technology to decide how best to meet these standards, taking into account the consequences of contravention⁸³ and the Drinking Water Inspectorate's enforcement policy.⁸⁴

⁷⁸ Natural England, JNCC, Natural Resources Wales, NatureScot & Northern Ireland Environment Agency (2021) *Nature Positive 2030 – Summary Report*. JNCC: Peterborough. ISBN: 978-1-86107-636-6; <https://data.jncc.gov.uk/data/6de7bf27-055e-4407-ad29-4814e1613d90/nature-positive-2030-summary-report.pdf>; The Nature Recovery Action Plan for Wales 2020-21; <https://gov.wales/sites/default/files/publications/2020-10/nature-recovery-action-plan-wales-2020-2021.pdf>

⁷⁹ See for example, Sir James Bevan, *How to regulate better after Brexit*, Westminster Energy and Transport Forum, 18 January 2022.

⁸⁰ For example, the recent review of the Water Industry National Environment Programme (WINEP) in England was limited in its capacity to move to catchment-wide outcome-based regulation by existing water industry legislation and regulation, including in particular the Water Framework Directive.

⁸¹ Drinking Water Inspectorate, Regulation 4: Wholesomeness.

⁸² Drinking Water Inspectorate, Regulation 27: Risk Assessment.

⁸³ Drinking Water Inspectorate, Regulation 38: Contravention by relevant suppliers.

⁸⁴ Drinking Water Inspectorate, *Secure, safe clean drinking water for all: Enforcement Policy*; <https://cdn.dwi.gov.uk/wp-content/uploads/2020/09/23111546/dwi-enforcementv2.pdf>

By contrast, there is evidence from the water sector that ‘the current approach to environmental regulation in the water sector leads to inefficient outcomes as companies are not incentivised to choose solutions that deliver the biggest environmental benefit at the lowest societal costs’.⁸⁵ As a result, regulated improvements in water quality paid for through water customer bills are overwhelmingly focused on improving the quality of water discharged from individually permitted water treatment facilities.

This approach strongly favours engineering solutions that may not be the most efficient way of achieving water quality improvement required at a catchment level, do not properly factor in their environmental costs in terms of energy and chemical use, and miss the opportunity to deliver multiple environmental benefits through nature-based solutions.

The farming⁸⁶ and water sectors⁸⁷ have much greater ambition for role they can play in the transition to net zero and nature positive than is afforded by existing regulation, systems and processes. Reform is needed to ensure that existing regulation does not delay or add substantially to the cost of this transition. There is a need for regulators to set out a coherent strategy for environmental improvement that facilitates an equitable transition to polluter pays. These strategies need to be supported by modern compliance policies that recognise the role of incentives in achieving compliance.

The need to update and strengthen the UK’s framework of economic regulation to address long-term challenges including protecting and enhancing the environment has recently been acknowledged.⁸⁸ There is a need for a framework that incentivises utilities to invest in the long-term landscape and catchment scale action required to reverse nature’s decline. The framework also needs to be flexible to accommodate and facilitate co-investment.

⁸⁵ Wessex Water, Frontier Economics, *Outcome-based Environmental Regulation: Enabling the Water Sector to make its contribution to the 25 Year Environment Plan*, October 2021; <https://wessexwater.co.uk/corporate/strategy-and-reports/performance/ober-report>; United Utilities, The Rivers Trust, *PR 24: Unlocking nature-based solutions to deliver greater value*; <https://www.unitedutilities.com/globalassets/documents/pdf/pr24---unlocking-nature-based-solutions-to-deliver-greater-value.pdf>

⁸⁶ NFU, *Our Journey to Net Zero, Farming’s 2040 Goal*: <https://www.nfuonline.com/media/rwzkb3fc/our-journey-to-net-zero-2021.pdf>; CLA *Towards Net Zero: Creating a Low Carbon Rural Economy*, December 2021; https://www.cla.org.uk/documents/430/CLA_Towards_Net_Zero.pdf

⁸⁷ Water UK, *Developing a 2050 Vision for the Water Sector: A Discussion Paper*, March 2021: <https://www.water.org.uk/2050-vision-for-the-water-sector/>

⁸⁸ Department of Business, Energy and Industrial Strategy, *Economic Regulation Policy Paper*, January 2022.

Institutional architecture

Recommendation 5: Establish a governance and institutional architecture for UK environmental markets

What is it?

An agreed approach to the oversight, coordination, and operation of environmental markets across the UK that establishes clear roles and responsibilities for the framework as a whole and each of its constituent elements.

UK governments should not wait until problems arise. Instead, they should be proactive in determining their collective and individual role(s) in market development, regulation, and administration. They should also lead a consultation to agree on the balance of UK-wide coordination and devolved market operation.

Recommendation 5.1: Commission and publish a market governance and institutional options paper by the end of 2022

UK governments should work together to commission and publish a market governance and institutional options paper for the supervision and operation of environmental markets by the end of 2022. Options should consider the potential role of existing institutions, as well as changes to structures and accountabilities to ensure coherent independent regulation of this major new area of economic activity.

Recommendation 5.2: Consult on a preferred option by March 2023

Following consultation, a preferred option on both the governance and institutional arrangements should be released for consultation by Autumn 2022. This should include how it is proposed that the arrangements would be given legal and practical effect.

Recommendation 5.3: Agree a joint implementation plan for environmental market governance by June 2023

An implementation plan setting out the process, timeframe, and resources for establish the governance and institutional arrangements should be prepared by February 2023.

Rationale

High integrity environmental markets require a robust governance framework and institutional architecture. As environmental markets develop across the UK, trust and confidence in these markets needs to be built quickly with farmers and landholders, local communities, environmental organisations, as well as the business and finance sectors. A coherent framework is needed across both voluntary and compliance markets to provide a consistent basis for investment in nature-based projects.

To avoid the types of problem that have emerged in voluntary carbon markets,⁸⁹ and some compliance markets,⁹⁰ a firm hand is required during the early stages of nature market development. This is particularly important given government ambition for the scale of these markets,⁹¹ and the fact that governments are already involved in the creation of such markets through new regulatory obligations.⁹² It is therefore essential that at a minimum, governments can demonstrate how these markets will be regulated to prevent fraud and deception.

Governments also need to decide how closely they want or need to be involved in the governance and operation of these markets. Different governance models bring different advantages and disadvantages. In some countries governments have taken on the role of the market regulator,⁹³ both to facilitate private investment and avoid or address market failures.

The advantages of close supervision of environmental markets by government in the early stages of market development, should be looked at carefully. Governments need to assess the risk of having to step in to restore trust and confidence in markets at a later stage where markets have not been properly designed or supervised. A pathway can be set out where governments progressively step back as markets are seen to be functioning effectively, for example by endorsing trading schemes, licensing market operators, and approving accreditation bodies.

Key to the decisions about market governance is the question of roles and responsibilities of new and existing institutions. High integrity markets typically separate the roles of rule maker and administrator. Investment certainty is also enhanced by independent processes for setting and reviewing standards. These requirements necessitate a close look at the current roles and accountabilities of existing institutions.

Significant private investment in nature recovery should not be expected in the absence of a clear governance framework for environmental markets and agreement about the institutional arrangements for their operation.

⁸⁹ Taskforce on Scaling Voluntary Carbon Markets, *Phase 1 Final Report*, January 2021; https://www.iif.com/Portals/1/Files/TSVCM_Summary.pdf

⁹⁰ See for example, Graeme Samuel, *Independent review of the EPBC Act*, October 2020; <https://epbcactreview.environment.gov.au/resources/final-report/executive-summary>

⁹¹ HM Treasury, *Autumn Budget and Spending Review 2021*; <https://www.gov.uk/government/publications/autumn-budget-and-spending-review-2021-documents/autumn-budget-and-spending-review-2021-html>

⁹² Such as Biodiversity Net Gain and Nutrient Neutrality obligations on developers in England.

⁹³ For example the Clean Energy Regulator in Australia is currently responsible for emissions reduction through carbon farming, and will take on new responsibilities for regulating the biodiversity offset market with the passage of the Agriculture and Biodiversity Stewardship Bill 2022; https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bld=r6832

MARKET GOVERNANCE

6. Establish a system of standards for quantifying the environmental services from nature.
7. Establish an accreditation mechanism for nature-based environmental services.
8. Improve the data needed to facilitate efficient environmental market operation.

Standards

Recommendation 6: Establish a system of standards for quantifying the environmental services from nature

What is it?

A system of standards that ensures that the quantification of environmental services delivered by nature-based projects is carried out rigorously, consistently, and in line with environmental principles and current scientific knowledge.

The system would involve three-tiers comprising:

- a set of **overarching principles** that would apply to the quantification of all environmental services from nature-based projects;
- a set of **core requirements** for standards for each category of environmental service;
- a consistent **assessment process** for approving individual standards.

The application of the principles to particular standards would be carried out by the organisation charged with responsibility for the oversight of standards under the agreed Nature Market Governance Framework (see Recommendation 5).

Once the principles are agreed, existing standards such as the Woodland Carbon Code and Peatland Code would be reviewed to enable them to be brought formally into the system. Proposed new standards would be subject to the assessment process with standards that comply with the principles being approved for use in particular settings, including meeting specific regulatory requirements.⁹⁴

The system would enable standards to be developed for specific services from particular types of nature-based project or ecosystem.⁹⁵ The system would also establish a process for the regular review and update of approved standards, supported by appropriate scientific and technical advisory groups. Defined timeframes for processes for reviews will provide certainty for investors while enabling standards to evolve with the science. The system would be developed to enable the use of approved standards to be a verification mechanism for the UK Green Taxonomy.⁹⁶

⁹⁴ It is essential that buyers of credits for an environmental service know that nature-based projects delivered to an approved standard, will be accepted by competent authorities and regulators as delivering the service required to meet particular regulatory obligations.

⁹⁵ For example, the ecosystems defined under the terrestrial habitat classification system; <https://jncc.gov.uk/our-work/terrestrial-habitat-classification-schemes/>

⁹⁶ <https://www.gov.uk/government/news/new-independent-group-to-help-tackle-greenwashing>

Recommendation 6.1: Establish principles and core requirements for all nature-based standards

A set of core principles for all standards to be used for quantifying the environmental services from nature-based projects should be developed. High level principles are needed to ensure that standards establish appropriate baselines, demonstrate additionality and have a robust and independent approach to monitoring and verification.

Core requirements for standards are also needed to provide clarity and transparency of:

- the standards body that will be responsible for the standard
- the scope of the standard including the environmental service being delivered and the type(s) of nature-based projects and/or ecosystems to which the standard applies;
- any specific geographic requirements or constraints on the application of the standard;
- project eligibility including compliance requirements;
- data and modelling requirements and approved assessment tools;
- output specification in terms of the quantity and units of the environmental service delivered;
- approved uses, in particular the specific regulations for which the standard can be used;
- processes for project monitoring and verification;
- the process and timing for the review of the standard.

Recommendation 6.2: Create a nature-based carbon standard

An overarching standard should be developed to establish a consistent approach to quantifying the carbon sequestration from different types of nature-based project and ecosystem. The standard should build on the Woodland Carbon Code and Peatland Code to provide guidance for the development of other nature-base carbon standards. The standard should apply to both habitat creation and restoration projects.

Recommendation 6.3: Fund the development of priority standards for other environmental services

Development of standards for quantifying nature-based diffuse source nutrient pollution reduction, natural flood management, and soil carbon storage should be accelerated through public funding and a consistent commissioning and review process.

The standards need to go beyond general regulatory guidance to establish a methodology that will enable different suitably qualified individuals to generate the same result from applying the standard to an individual nature-based projects.

Rationale

It is clear from the experience in voluntary carbon markets in particular,⁹⁷ that a coordinated system of standard development will be essential to the effective operation of markets for nature-based environmental services. There is a significant risk of the proliferation of inconsistent standards that create market confusion and undermine confidence in the quality of the environmental services being delivered.

However, standards for quantifying the environmental services from nature are also not being developed quickly enough, development is piecemeal and uncoordinated, and is being hampered by the lack of agreement over who should be responsible for their oversight. Specific standards are required to measure particular environmental services from specific types of nature-based projects.

An overall standards system is required to enable standards to be assessed, approved and reviewed in a predictable and timely manner. The system also needs to be linked into the development of UK Green Taxonomy so that companies can invest in UK nature-based projects confident that they will meet the definition of environmentally sustainable investment. The transaction costs of navigating uncoordinated and inconsistent standards are limiting market development.

A common set of principles is therefore urgently needed to apply to all standards for nature-based environmental services.

Core requirements are also required for particular categories of environmental service. For example, core requirements for standards that measure carbon sequestration from natural ecosystems is needed to ensure that carbon credits from nature are of the same quality to provide certainty for both investors and regulators.

Public investment to accelerate standard development for specific environmental outcomes such as diffuse source nutrient pollution reduction, natural flood management, and soil carbon are also urgently needed to provide a mechanism to quantify and verify the environmental outcomes, and unlock revenue for nature-based projects.

The overarching principles, core requirements and individual standards for particular environmental services should be developed collaboratively through the British Standards Institute (BSI), building on existing work and with a view to being endorsed as designated standards. Designated standards will afford businesses the presumption of conformity with legislation and regulation, with regulators retaining their discretion to provide evidence to the contrary in particular cases.

⁹⁷ Taskforce on Scaling Voluntary Carbon Markets, *Phase II Report* July 2021.

Accreditation

Recommendation 7: Establish accreditation mechanisms for nature based environmental services

What is it?

Agreed mechanisms for authorising the issue of tradeable credits for the environmental services delivered by nature-based solutions are needed for markets to operate.

The accreditation mechanisms should be developed collaboratively through the UK Accreditation Service (UKAS) and approved by environmental regulators in each country to provide confidence in both the organisations and individuals carrying out the accreditation, and the capacity of the credits issued to be redeemed to meet regulatory obligations. The accreditation mechanisms, including robust auditing should be operated independently of existing regulators to avoid conflicts of interest and create certainty in the quality of environmental credits issued.

Robust accreditation mechanisms including applying standardised additionality tests will enable credits for different environmental services from nature-based projects to be stacked while maintaining market integrity.

Recommendation 7.1: Establish mechanisms for accrediting nature-based projects

Consult on possible accreditation mechanisms, including the capabilities, expertise and qualifications needed by organisations and individuals who may carry out the accreditation.

Recommendation 7.2: Establish clear policy for stacking credits for different environmental services

Allow multiple environmental services delivered by nature-based projects to be accredited providing they meet agreed additionality tests.

Recommendation 7.3: Apply baseline environmental and legal additionality tests to all nature-based projects

To be accredited nature-based projects should meet core environmental and legal additionality tests.

An environmental baseline test for additionality is needed to ensure that a nature-based projects deliver real environmental improvement over an agreed physical baseline for each environmental service delivered.

A legal test for additionality test is needed to exclude specific nature-based projects which it is legally certain would or should have been delivered at the time the landholder proposes to enter into an agreement to deliver a nature-based project.

Rationale

Accreditation mechanisms

A comprehensive set of standards for measuring the environmental services from nature (Recommendation 6) is on its own insufficient for markets to operate. A mechanism is also needed to accredit nature-based projects and verify the environmental services they deliver.

Accreditation involves creating and managing the intangible property rights from the supply of environmental services from nature-based projects. These rights are typically in the form of certificates backed by an authority that enables credits to be confidently bought and redeemed to meet regulated and voluntary obligations.

Standard setting and accreditation while closely related, involve different capabilities and systems. An accreditation authority is needed to:

- provide assurance that nature-based projects have complied with standards;
- track and manage the registration, trading and redeeming of credits;
- authorise suitably qualified organisations and individuals to register projects and generate credits; and
- audit businesses and organisations to ensure that the correct number of credits have been generated.

Effective accreditation processes are essential for the efficient coordination and operation of nature-based markets.⁹⁸ Accreditation processes need to be consistent across the full range of environmental services from nature-based projects and apply to both voluntary and regulated environmental services.

When a nature-based project is accredited for the environmental services it delivers, there is a need to ensure that the credits issued represent real environmental improvement. To provide confidence in these markets, the nature-based project that generates the environmental services must be 'additional', in other words would not otherwise have occurred.

In many areas of the UK, multiple revenues for individual environmental services will need to be combined to pay farmers and landholders an economic price to integrate nature with productive agriculture and forestry. Climate resilient nature recovery will not be achieved solely by paying for carbon sequestration projects on the lowest value land.

Stacking

Stacking enables the full range of environmental services delivered by a nature-based project to be accredited and sold, in the same way that the multiple agricultural products from a particular land use can be sold. This is a process known as 'stacking'.

⁹⁸ TNC, *Biodiversity Net Gain in England: Developing Effective Market Mechanisms*, October 2021.

https://www.nature.org/content/dam/tnc/nature/en/documents/TNC_BiodiversityNetGain_England.pdf

Stacking has several benefits including:

- providing additional revenues from the sale of multiple environmental services that will enable the market to provide higher incentives to landholders for delivering nature-based projects;
- reducing the area of economically productive agricultural land taken out of production to deliver environmental improvement;
- sharing the cost of delivering nature-based projects between buyers of the different environmental services lowering the cost of individual services;
- increasing transparency of the environmental services being delivered and sold from nature-based projects, reducing the risk of free riding, double counting, overlapping sales and asymmetrical accounting.

Policy uncertainty about stacking is currently a major barrier to market development. This uncertainty reflects an unresolved tension between the recognition of the potential economic and environmental benefits that stacking can deliver, and a persistent view that stacking creates risks that will *inevitably* result in market failure, facilitate greenwashing and result in a loss of environmental value.

Stacking is often *presumed* to create risks that *will* result in:

- credits being used to obtain approval of actions that cause environmental harm, for which there is inadequate compensation; and
- payment being made to farmers and other landowners for environmental services they are not actually delivering.

However, there is very limited empirical data on stacking or analysis of the costs and benefits of stacking, which has hindered policy development. Government has signalled a willingness to support the sale of multiple environmental services where the 'right framework of standards rules and data'⁹⁹ ensure the integrity of environmental markets and the environmental credits they produce.

Potential market integrity problems attributed to stacking include:

- selling the same service multiple times to different buyers (double selling)
- selling overlapping services to different buyers (overlapping sales)
- asymmetrical accounting (accounting differently on impact and offset side)

However, careful examination of these problems, both in theory and practice, reveals that they are not *caused* by stacking, rather they are caused by underlying regulation, market design and governance failures which can be *exacerbated* by stacking. A particular source of these failures is the imprecise partitioning of the rights to the environmental services generated by nature-based projects.

As such, well-designed and governed markets, supported by publicly accessible market infrastructure such as project and credit registries can ensure that the benefits of stacking can be realised while maintaining market integrity.

⁹⁹ Above note 4, p 33.

Additionality

It is critical for market integrity that land use changes incentivised through environmental markets deliver real environmental improvement. This need is encapsulated in the principle of environmental ‘additionality’.

A coherent, defensible, and practical definition of environmental additionality is required for the efficient operation of environmental markets¹⁰⁰. A nature-based project *will* deliver real environmental improvement if it is *certain* that:

1. it will result in *positive change* in one or more environmental services; and
2. at the time that a landholder enters a contract to deliver a nature-based project there was *no pre-existing legal obligation* to do so.

Environmental additionality needs to be considered at the project level. If a nature-based project is additional then all the environmental services that it delivers are additional. Environmental additionality needs to be measured against a baseline. The baseline should be what is certain would or should have occurred in the absence of a market contract to deliver a particular nature-based project.

Landowners and investors need to know what tests will be applied to a nature-based project to demonstrate that it is additional and enable the environmental services it delivers to be accredited and sold.

Two tests for additionality need to be applied to all nature-based projects.

Baseline test

Standards for calculating the environmental services delivered by nature-based projects must establish an *environmental baseline*, based on current land use and its duration¹⁰¹. The *environmental impact* of the project on each environmental service above its baseline must then be established:

- using the best readily available data and models; and
- applying relevant environmental principles including both precaution and proportion.

The baseline test for environmental additionality test would be applied at the project accreditation stage, using the standards approved for use in the relevant market(s). This baseline test for additionality will ensure that credits generated from a nature-based project represent real physical environmental improvement.

¹⁰⁰ General definitions of additionality based on establishing a counterfactual such as ‘over and above that which would have happened anyway under existing legal, financial, and business circumstances’ create significant further uncertainties about ‘what would have happened’ which are practically indeterminate.

¹⁰¹ Land use needs to be of a sufficient duration to avoid creating perverse incentives for landholders to adopt environmentally harmful practices in order to increase the payment they may receive for delivering a nature-based project.

Legal test

If a landholder has a legally enforceable agreement under for example a government incentive scheme to implement a specific nature-based project, that agreement is part of the *legal baseline* and the project may not be additional.¹⁰² Similarly, if land use regulations require a specific land use or specific level of environmental performance, that regulatory requirement may also be part of the legal baseline.¹⁰³

However, to be considered part of the legal baseline there must be certainty that the obligation:

- exists prior to the landholder entering a contract to supply the project;
- requires the landholder to deliver the same project, land use or level of environmental performance; and
- is of the same duration as the proposed market contract.

This legal test for additionality will ensure that only changes in land use caused by the market contract to supply the nature-based project will be additional.

Other tests for additionality

Environmental markets are not grant schemes. Rather, they are mechanisms for efficiently matching the supply of nature-based projects with the demand for the environmental services delivered by these projects. In these markets the cost of environmental credits and the payments to landowners for delivering the nature-based projects are set by the market in response to supply and demand.

Efficient markets need to accommodate short periods where prices paid to some landholders significantly exceed the cost of supply, to provide the market signal needed to incentivise additional supply.

Financial tests for additionality which require a landholder to demonstrate that a payment for a particular environmental service is 'necessary' for the project to be 'financially viable' dampen price signals, with the effect of constraining the supply of credits by lowering the incentives for landholders to enter the market to supply nature-based projects.

There are also significant theoretical and practical difficulties with such financial tests, particularly around the opportunity cost of the land use for nature. These difficulties are compounded when projects timeframes are very long, such as 30 years (biodiversity) and 80-125 years (nutrient mitigation)

The financial tests employed for example in the Woodland Carbon Code¹⁰⁴ have a specific historical and international context. Such such tests, even if they can be practically applied are not needed if there is robust application of the baseline and legal tests for additionality outlined above. Tests for additionality when applied to projects in accordance with agreed standards (Recommendation 6) as part of a robust project accreditation process (Recommendation 7.1) and underpinned by transparent market infrastructure (Recommendation 11) can provide assurance of environmental additionality.

¹⁰² Unless it specifically allows a landowner to sell particular environmental services from the project, for example carbon credits.

¹⁰³ However, regulations that provide examples of actions that *could* be done to achieve compliance are, on their own, insufficiently certain to justify the *automatic* exclusion of projects that result in these actions from the market.

¹⁰⁴ Test 2: Contribution of Carbon Finance and Test 3: Investment.

Market Data

Recommendation 8: Improve the data needed to facilitate efficient environmental market operation

What is it?

A programme of investment in obtaining and making accessible core data needed by farmers, landholders, business and the financial sector to develop and fund nature-based projects.

Recommendation 8.1: Identify and prioritise data gaps to be filled

Baseline data on the environmental condition of land, water and the marine environment across the UK is needed to enable nature-based projects to be developed in locations that will maximise their contribution to nature recovery and environmental improvement.

Key gaps in the data should be identified and filled through initiatives such as the Natural Capital and Ecosystem Assessment for England, and UK Research and Innovation's Strategic Priorities Programme.

A particular priority is decision grade data such as detailed soil and vegetation types and geology and hydrology required for accrediting nature-based projects that are supplying environmental services to meet regulatory obligations.

Recommendation 8.2: Design and implement outcome-based monitoring for nature-based solutions

Cost effective monitoring programmes need to be developed to enable the impact of nature-based solutions deployed across an area or catchment to be assessed. The programmes need to be risk based and ensure the cost of monitoring is proportionate to the scale of investment.

MARKET OPERATION

9. Provide funding and capital for projects to demonstrate investment-scale revenues.
10. Develop and test frameworks for local prioritisation, administration and leveraging public funding.
11. Establish market infrastructure including registries, platforms, tools, and templates to facilitate efficient market operation.
12. Convene a cross-sectoral Task Force to coordinate and report on the delivery of the Framework.

Market development

Recommendation 9: Provide funding for projects to demonstrate investment scale revenues

What is it?

Sources of funding available in all part of the UK to support organisations to develop nature-based projects and demonstrate their capacity to generate the scale of revenues required to attract private investment.

Funding to support business case development, including obtaining professional advice on the technical, legal and financial aspects of making projects 'investment ready' as well as building the capacity to identify and market the project and the environmental services it delivers to potential investors.

Concessionary and/or patient capital to de-risk private financing of investment scale demonstration projects.

Recommendation 9.1: Make investment readiness grants available for nature-based project development

Grants from governments are needed to assist in translating nature-based projects into investable propositions. Support is needed along the project development pathway (see Figure 2 above).

Recommendation 9.2: Establish sources of patient and concessionary capital for investment scale demonstration projects

In early-stage market development, until the revenues from nature-based projects are proven at investment scale, patient and/or concessionary capital is needed to de-risk private investment in project development and aggregation.

Rationale

Nature-based projects have traditionally been designed to meet the criteria and technical specifications of the public funding agency. Farmers and landholders and their advisors have not typically developed capabilities around preparing business cases for private funding, project finance or investment.

On the finance sector side, there is limited knowledge of the technical and regulatory requirements involved in developing nature-based projects that can deliver regulatory grade credits¹⁰⁵ for their environmental services.

Resources are needed to assist project developers to overcome these barriers. Sharing the learnings from projects that have secured private funding can help develop a robust pipeline of investment ready projects across the UK.¹⁰⁶

Once projects have demonstrated their capacity to generate cash flow at scale, the level of private investment in nature-based solutions will simply be a function of the size of the market. There is clear evidence that significant capital is available for nature-based investment provided there is sufficient demand certainty of the environmental services that nature-based projects deliver (see Recommendation 1) and the technical standards and market rules that will apply.

Local delivery frameworks

Recommendation 10: Develop and test frameworks for local prioritisation, administration and co-funding

What is it?

A process by which existing public funding is provided to an appropriate local organisation or entity to develop a portfolio of nature-based projects within an area or catchment and secure co-funding from the private sector. The public funding would be tied to outcomes not projects. This would provide both the flexibility to develop projects that deliver multiple environmental benefits, and incentives for innovation.

Recommendation 10.1: Establish principles for local governance of public funding for nature recovery

The principles and requirements for the type(s) of organisation that can receive public funding to be deployed across an area or catchment needs to be established. The outcomes for which public funding will be allocated to these areas or catchments also needs to be determined.

Recommendation 10.2: Trial committing public funding for area and catchment-based portfolios of co-funded nature-based projects

Allocate funding from existing schemes to support trials of different area-based delivery models.

Agreed amount of public funding should be committed to specific local environmental improvement targets. The funding would be managed by approved organisations and matched by private funding and finance, including from local businesses to deliver agreed landscape scale projects.

¹⁰⁵ Regulatory grade credits are credits for an environmental service(s) that can be redeemed by businesses to meet particular regulatory obligations.

¹⁰⁶ The Green Finance Institute Hive provides a mechanism to share the learnings from projects that have successfully secured private funding, finance and investment: <https://www.greenfinanceinstitute.co.uk/gfihive/>

Recommendation 10.3: Establish training and skills development programmes to support participation in markets for nature

Develop targeted programmes to build the specialist skills and expertise required to support farmers, landholders and communities to participate in emerging markets for nature.

Conduct surveys of farmers and landholders and their advisors, local government and regulators to identify key skills gaps in relation to nature-based solutions and markets for nature.

Identify professional development needs across a range of disciplines to increase access to the expertise needed to support nature-based solution development and delivery, and the operation of environmental markets.

Rationale

Other than carbon sequestration, nature-based projects deliver environmental services that are geographically specific. Landscape scale projects require significant cooperation and coordination. Blending public and private funding requires public funding bodies to provide flexibility in how environmental outcomes may be delivered. Following Brexit there is a unique opportunity to fundamentally rethink how public funding is used to catalyse integrated local delivery and test new approaches.

Co-funding

A potential way of increasing the supply of nature-based projects is through co-funding. Co-funding works on the basis that two or more parties can achieve their individual objectives more efficiently through jointly funding a single project than by individually financing separate projects.

When co-funding nature-based projects, each funding provider needs to ensure they are getting value for money. The environmental services delivered by a co-funded project therefore need to be properly understood and quantified, and agreement reached over who has the rights to the different services. This is particularly important as no individual funding provider is paying the full economic cost of delivering the project.

From a practical perspective, farmers and other landholders need to know whether they can offer to supply a project if there are no receipt of a grant or other form of public funding.

If a landholder enters an environmental market on the assumption that they are separately able to sell the other environmental services delivered by the project, and payment for these services is sufficiently certain, this will be reflected in their market offer. However, in the absence of certainty about co-funding a landholder would be expected to discount the value of these other services to zero.

When designing public funding schemes, it needs to be clear whether the funding can be used to co-fund nature-based projects. If so, it also needs to be clear what the public funding is paying for and what environmental services the landholder can sell to ensure no double or overlapping sales.

The risk of overlapping sales is higher when the units of some of the environmental services are not well defined. For example, some nature-based projects can reduce the risk of surface water flooding by slowing the flow of surface water. However, if there is no agreement on the units of measurement for natural flood management this makes it hard to determine how much the buyer of natural flood management services should pay (see Recommendation 6.3).

From a practical perspective, landholders need to know whether they are able to offer environmental services delivered by their nature-based projects for sale if they are in receipt of a grant or other form of public funding.

Rules for environmental markets should require landholders offering to supply nature-based projects to:

- declare whether there is an intention to co-fund a project; and
- provide the details of the co-funding scheme to enable eligibility for participation in the market to be assessed on a case-by-case basis.

Co-funding should be allowed if:

- The co-funding specifies the environmental services that are being bought; and
- There are no double or overlapping sales.

Community Development

Local communities need to be empowered and incentivised to both identify, plan and deliver landscape scale projects. Committing public funding 3- 5 years ahead tied to targets for private investment can provide these incentives (see Recommendation 2).

It is recognised that there are significant gaps in the expertise available to support nature-based solution development and delivery.¹⁰⁷ This is contributing to significant supply chain constraints for delivering nature-based projects especially in remote areas. These constraints are compounded by a lack of standards for measuring and accrediting nature-based projects (see Recommendations 6 and 7), which limits the capacity of local communities to identify and assess opportunities themselves. Training in the use of existing standards is also required to increase the consistency in advice to landholders.

Markets for nature-based solutions cannot achieve scale without standardisation, so that farmers, landholders, local authorities and regulators can confidently rely on consistent advice. Organisations and individuals will need to be authorised to carry out particular tasks, including nature-based project design and accreditation (see Recommendation 5). These tasks need to be supported by appropriate training and qualifications.

Training and skills development for farmers, landholders and communities is also needed to ensure that they are able to participate in and benefit from these new markets. This is a key element of achieving a fair transition to nature positive (See Recommendation 1.3).

¹⁰⁷ House of Lords Science and Technology Select Committee, Second Report of Session 2021-22, *Nature-based Solutions, Rhetoric or Reality; The potential contribution of nature-based solutions to net zero in the UK*, 27 January 2022.

Market infrastructure

Recommendation 11: Establish market infrastructure including registries, platforms, tools and templates to facilitate efficient market operation

What is it?

Shared infrastructure that can be accessed by organisations and individuals to assist in developing and accrediting nature-based projects and buying and selling the environmental services these projects deliver.

Recommendation 11.1: Develop a nature-based project and credit registry system

A national architecture for the market registries that are needed to track nature-based projects and the environmental credits that they generate, should be developed to facilitate efficient data exchange, and create the level of transparency required to build trust and confidence in these markets.

Recommendation 11.2: Establish standard environmental market rules and operating procedures

Template market rules should be established covering market participation, nature-based project registration, market bidding and settlement to assist in establishing market exchanges for different environmental services.

Recommendation 11.3: Develop and publish a code of common terms and template contracts for delivering nature-based projects

Standardised contract templates, definitions and common clauses should be developed to help reduce the legal cost of buying and selling nature-based projects and environmental services they deliver.

Rationale

Even under current policy settings, UK domestic markets for environmental services are expected to involve billions of pounds of trade.¹⁰⁸ At the scale of government ambition,¹⁰⁹ significant environmental market infrastructures will be needed to support efficient, safe and secure market operation.

Markets for nature have some of the typical network economics problems that need to be overcome through investment in shared infrastructure. The value of markets for nature will increase as more farmers, landholders, businesses and regulators participate. However, individually no individual market participant has the incentives to invest in the market infrastructure to facilitate efficient market operation. The cost and inefficiency of seeking to negotiate multi-party agreements without a supporting market infrastructure, risks severely limiting market development.

Environmental market infrastructures may be needed to facilitate bidding and settlement, and provide repositories for holdings and transferring credits for environmental services generated by nature-based projects. If not properly managed these infrastructures may create a risk to market integrity, and will need effective security and oversight to manage the risks of fraud and cyber-crime.

As an example, high integrity environmental markets are typically underpinned by credit registry systems that can track and trace the source of credits for environmental services.¹¹⁰ Registries are critical in demonstrating that projects have been properly accredited to ensure additionality, support assurance including auditing, and provide transparency for competent authorities and regulators who are in receipt of redeemed credits.

Nature-based project registries are also needed to enable the type, location and maintenance of projects to be monitored and reported, and compliance with covenants and other land management agreements enforced.

¹⁰⁸ The size of the market for biodiversity gain in England alone has been estimated to be approximately £200m per annum; Defra, Biodiversity net gain and local nature recovery strategies, 2019; https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/839610/net-gain-ia.pdf

¹⁰⁹ Above note 55.

¹¹⁰ See for example the UK Land Carbon Registry; <https://www.woodlandcarboncode.org.uk/uk-land-carbon-registry#:~:text=UK%20Land%20Carbon%20Registry%20The%20UK%20Land%20Carbon,projects%20and%20ownership%20and%20use%20of%20carbon%20units.>

Market transition

Recommendation 12: Convene a cross-sectoral Task Force to coordinate and report on the delivery of the Framework

What is it?

A forum that brings together representatives of sectors that depend on nature and the environmental services it provides, impact on its health and resilience, and contribute to its protection and restoration, with the finance and professional services sectors to facilitate and report on the delivery of the Framework.

The Task Force would include representatives of:

- farmers and other landholders and managers, infrastructure and housing developers, the water and food manufacturing and retail sectors;
- the finance sector including fund managers, ratings agencies, financial institutions and service providers;
- intermediaries including lawyers, financial advisors, and insurance providers; and
- conservation bodies, the scientific community, local and national governments and their agencies.

An early action for the Task Force would be to establish a process for agreeing who will take lead accountability for progressing each recommendation, securing delivery partners and developing a detailed delivery plan.

The Task Force would support the organisations with lead accountability for the recommendations, by providing access to advice and expertise, providing policy advice to governments, help to overcome barriers and communicate progress in delivering the Framework.

Recommendation 12.1: Develop country-specific implementation plans to align and integrate the delivery of the Framework with wider policy objectives

Each country would advise and input into initiatives that will be delivered on a UK-wide basis, and share information about the implementation of recommendations that will be delivered as part of country-specific policies and programmes.¹¹¹

Recommendation 12.2: Establish a transition team to facilitate the delivery of the Roadmap drawn from across the four UK administrations.

A transition team of representatives from each country will support the work of the Task Force by coordinating UK-wide initiatives and facilitating access to country expertise.

¹¹¹ See for example the Interim Scottish Government Principles for the Responsible Investment in Natural Capital, 31 March 2022; <https://www.gov.scot/publications/interim-principles-for-responsible-investment-in-natural-capital/>

PART D: ROADMAP



ROADMAP

	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
CURRENT AND PLANNED POLICY FRAMEWORK	 £1 billion for nature conservation Scotland	 Dasgupta Review and Government response	 Nature Recovery Green Paper Principles for investment in Scotland's natural assets COP26 - Biodiversity Agriculture (Wales) Bill Climate Change Bill Northern Ireland	 Updated Green Finance Strategy First Review of Environmental Improvement Plan	 PR 24 Water Price Review ELM commences Nature Related Financial Disclosure Obligations						 PR 29 Water Price Review TARGET protect at least 30% of land and sea TARGET £1bn annual private investment in nature	
ROADMAP STRATEGY AND GOVERNANCE	 Accelerating Private Investment in Nature Report Financing UK Nature Recovery Proposal	 Strategic Directions Draft roadmap	 Final Financing UK Nature Recovery Report Cross-sectoral taskforce established to support delivery					 Financing UK Nature Recovery 3-year review and strategy for next 5 years				
ROADMAP DELIVERY				 Test public procurement through environmental markets Local delivery targets set Nature Positive Commitment for UK Business Institutional Architecture defined	 Commence test of outcome-based environmental regulation in the water sector							
			 Approach to stacking and additionality agreed Principles for developing standards for nature-based solutions agreed Data gaps agreed	 Accreditation mechanisms agreed	 Core environmental data available UK-wide							
				 Country-specific implementation plans Principles for Environmental Market Infrastructure established	 Review results of models for prioritisation, administration and co-funding							



NATURE RECOVERY

- Landholders routinely supplying nature-based projects through markets
- Businesses actively buying credits for environmental services to meet their environmental goals
- Government and philanthropic organisations purchasing services where there isn't private demand
- Local economies and communities benefiting from delivering nature-based projects
- Regulators focused on environmental outcomes, markets delivering solutions
- Consistent, public data about the state of the environment at a local level
- High-level of trust in markets, and clear evidence of successful delivery
- UK environmental markets a blueprint for action on nature and climate, and mobilising private finance

HIGH-INTEGRITY MARKETS FOR NATURE

POTENTIAL LEADS AND KEY DELIVERY PARTNERS

A major collective effort will be needed to deliver the Recommendations in this report. A critical first step in the Roadmap will be to identify who will lead the delivery of each Recommendation and who the key delivery partners will be. As a starting point for discussion only, the following table sets out potential leads and delivery partners. These are suggestions only and have not yet been canvassed.

	POTENTIAL LEADS AND KEY DELIVERY PARTNERS	
	Lead <i>Lead sub-task</i>	Key delivery partners <i>Key delivery partners sub-task</i>
1. Translate long-term national environmental targets into local nature recovery targets	Nature conservation agencies & Environmental regulators	JNCC Forestry Commission
1.1 Develop integrated area-based targets for environmental outcomes		<i>Local Authorities</i> <i>Conservation NGOs</i>
1.2 Develop model local community benefit policy for investment in nature-based solutions	<i>Scottish Just Transition Commission</i>	<i>Levelling Up Advisory Council</i>
2. Use public funding to buy accredited environmental services through market exchanges.	All UK administrations	
2.1 Test and trial landscape-scale environmental service payment systems	<i>Defra</i>	<i>Natural England, NFU, CLA</i>
2.2 Establish market exchange mechanisms for biodiversity, carbon and water quality credits	<i>Defra</i>	<i>Natural England, Environment Agency, Forestry Commission</i>

	POTENTIAL LEADS AND KEY DELIVERY PARTNERS	
	Lead <i>Lead sub-task</i>	Key delivery partners <i>Key delivery partners sub-task</i>
3. Establish new demand-side drivers for nature recovery		
3.1 Launch a voluntary Nature Positive Commitment for UK business in 2023	Council for Sustainable Business	NatureScot, Natural England, Aldersgate Group
3.2 Quantify nature-related impacts and dependencies across the UK economy	Green Finance Institute	NFU, CLA and other UK industry bodies Nature conservation agencies
3.3 Develop nature positive goals and sector targets	Broadway Initiative	UK Industry Bodies
4. Reform economic and environmental regulation to incentivise more efficient delivery of environmental outcomes.	HMT	Defra, Ofwat
4.1 Update the valuation and tax treatments of land used for nature and environmental services	HMT	Valuation Office Agency Royal Institution of Chartered Surveyors
4.2 Modernise existing water quality regulation to focus on outcomes and facilitate catchment-based delivery of nature-based solutions	Defra	Environment Agency (Natural Resources Wales SEPA, NIEA)
4.3 Reform the financial regulation of the water industry to incentivise efficient investment in environmental improvement.	Ofwat	UK Water

	POTENTIAL LEADS AND KEY DELIVERY PARTNERS	
	Lead <i>Lead sub-task</i>	Key delivery partners <i>Key delivery partners sub-task</i>
5. Establish a governance and institutional architecture for UK environmental markets	Defra	All UK administrations Office of Environmental Protection Financial Conduct Authority National Infrastructure Bank
5.1. Publish a market governance and institutional options paper by September 2022		
5.2. Consult on a preferred option by December 2022		
5.3. Agree a joint implementation plan for environmental market governance by May 2023		

	POTENTIAL LEADS AND KEY DELIVERY PARTNERS	
	Lead <i>Lead sub-task</i>	Key delivery partners <i>Key delivery partners sub-task</i>
6. Establish a system of standards for quantifying the environmental services from nature	Defra	All UK administrations JNCC, BSI
6.1. Establish principles and core requirements for all nature-based standards	BSI	Nature conservation agencies & Environmental regulators Conservation NGOs
6.2. Create a nature-based carbon standard	Forestry Commission	BSI
6.3. Fund the development of priority standards for other environmental services	Defra	BSI
7. Establish an accreditation mechanism for nature-based environmental services	Defra	All UK administrations JNCC, UKAS
7.1. Develop and consult on possible accreditation mechanisms	UKAS	IEMA
7.2. Establish clear policy for stacking credits for different environmental services	Defra	All UK administrations
7.3. Apply baseline environmental and legal additionality tests to all Nature-based Projects	Defra	Market operators and funding scheme administrators

	POTENTIAL LEADS AND KEY DELIVERY PARTNERS	
	Lead <i>Lead sub-task</i>	Key delivery partners <i>Key delivery partners sub-task</i>
8. Improve the data needed to facilitate efficient environmental market operation	All UK administrations	JNCC
8.1. Identify and prioritise data gaps to be filled	Defra	
8.2. Design and implement outcome-based monitoring for nature-based solutions	Nature conservation agencies & Environmental regulators	JNCC Forestry Commission
9. Provide funding and capital for projects to demonstrate investment scale revenues	All UK administrations	
9.1. Make investment readiness grants available for nature-based project developers		
9.2. Establish sources of patient and concessionary capital for investment scale demonstration projects	UK Infrastructure Bank	Scottish National Investment Bank
10. Develop and test frameworks for local prioritisation, administration and leveraging public funding	Scottish Nature Finance Pioneers	All UK administrations
10.1. Establish principles for local governance of public funding for nature recovery	Defra	DLUHC
10.2. Trial committing public funding for area and catchment-based portfolios of nature-based projects to be co-funded by business and private investment.	Defra	
10.3. Establish training and skills development programmes to support participation in markets for nature	IEMA	

	POTENTIAL LEADS AND KEY DELIVERY PARTNERS	
	Lead <i>Lead sub-task</i>	Key delivery partners <i>Key delivery partners sub-task</i>
11. Establish market infrastructure including registries, platforms, tools, and templates to facilitate efficient market operation.	Defra	Nature conservation agencies & Environmental regulators
11.1. Develop and implement a nature-based project and credit registry system		
11.2. Establish standard environmental market rules and operating procedures		
11.3. Develop and publish a code of common terms and template contracts for delivering nature-based projects.	UK Environmental Law Association	Lawyers in Local Government
12. Convene a cross-sectoral Task Force to coordinate and report on the delivery of the Framework		
12.1. Develop country-specific implementation plans to align and integrate the delivery of the Investment Framework with wider policy objectives.	All UK administrations	Nature conservation agencies & Environmental regulators
12.2. Establish a transition team to facilitate the delivery of the Roadmap drawn from across the four UK administrations.		

APPENDIX: EXISTING INITIATIVES

EXISTING INITIATIVES

A range of initiatives across the UK relate to and may contribute to establishing high integrity environmental markets.

UK

Woodland Carbon Guarantee

ENGLAND

Halt biodiversity loss by 2030

30 by30 pledge

75% of farmers to be “engaged in low- carbon practices” by 2030, rising to 85% by 2035

Biodiversity Net Gain

Nutrient Neutrality

Environmental Land Management

Nature for Climate - England Woodland

Creation Offer and England Impact Fund

England Trees and Peat Action Plan

Tree planting commitment – triple tree-planting rates

Restore 280,000ha of English peatland by 2050

Green Finance Strategy Review

Nature-based solutions for Climate Change

Natural Environment Investment Readiness Fund (NEIRF)

Nature Recovery Strategies

Nature Recovery Networks

Solent Nutrient Market Pilot

The Hive – Finance Sector

The Hive – Project to Project

NORTHERN IRELAND

Net Zero by 2050 target for Northern Ireland

Green Growth Strategy,

Environment Strategy,

Biodiversity Strategy

DAERA Environment Fund:

- Multi-year strategic area fund

- In-year environment fund

- Environmental Challenge competitions

Environmental Farming Scheme

Farm business improvement scheme

Maritime and Fisheries Fund

Forest Protection Scheme

Woodland Investment Grant

Agri-Food Cooperation Scheme

DAERA postgraduate students

SCOTLAND

Scottish Taskforce for Green and Sustainable Finance
Just Transition Commission
80% carbon emission reduction by 2030
Nature Restoration Fund (£55 million)
NatureScot support for community organisations
Scottish Marine Environmental Enhancement Fund
Investment readiness - £1 Billion Challenge Route Map

Future Routes Fund
Regional Economic Partnerships
Scottish National Marine Plan
National Strategy for Economic Transformation
Targets for forest and woodland creation
Peatland Action & Nature Improvement Funds
National Infrastructure Plan (includes natural infrastructure)
Future Woodlands Fund
Scottish Land Fund

Monitoring Equipment Fund
Scottish national nitrogen balance sheet
Nature Recovery – Peatland Action
Nature Recovery – Nature Restoration Fund
Nature Recovery – Scottish Forum on Natural Capital
Working with Rivers training placement scheme
Scottish Conservation Finance Pioneers Group

WALES

Nature Recovery Action Plan
Woodlands for Wales strategy
Low carbon delivery plan
Enabling Natural Resources and Well-being (ENRaW) fund
North Wales Wildlife Trusts Living Landscape strategy

Sands of LIFE
Nature Networks Fund
Welsh Parliament Nature Emergency declaration
Commitment to establish an independent environmental watchdog
Natur am Byth partnership

Wales Biodiversity Partnership
Wales Environment Link
Environment and Rural Affairs Monitoring & Modelling Programme

