

FINANCING UK NATURE RECOVERY

STRATEGIC DIRECTIONS

TOWARDS HIGH-INTEGRITY MARKETS FOR NATURE

SEPTEMBER 2021



“The Government is also working with industry leaders from the land management, business, finance and environment sectors through the Financing UK Nature Recovery coalition to develop a roadmap scaling up high-integrity environmental markets in the UK.”

**Government Response to Dasgupta
14 June 2021**

This Strategic Directions paper has been prepared to obtain feedback and input from stakeholders in the Financing UK Nature Recovery initiative on the:

- Vision for markets for nature-based environmental services
- Framework for Investment; and
- Strategic Directions proposed for action to implement the Framework

Feedback will be used to inform the development of a Roadmap and Recommendations for a Report to be published for COP26.

Written submissions can be made through the website at <https://financingnaturerecovery.uk>

TABLE OF CONTENTS

EXECUTIVE SUMMARY	3
INTRODUCTION.....	5
VISION	6
HOW DO MARKETS FOR NATURE WORK?.....	7
PART A: INVESTMENT FRAMEWORK	9
MARKET DESIGN	10
MARKET GOVERNANCE	13
MARKET OPERATION	15
PART B: STRATEGIC DIRECTIONS	17
NATURE POSITIVE TARGET	17
LEVEL THE PLAYING FIELD FOR NATURE	20
BLENDING PUBLIC AND PRIVATE FINANCE	24
ACCELERATE STANDARD DEVELOPMENT	26
ACCREDITING AND VERIFYING DELIVERY	27
LOCAL DELIVERY FRAMEWORK	28
LEAD THE TRANSITION	28
PROVIDING FEEDBACK	30

EXECUTIVE SUMMARY

This Strategic Directions paper has been prepared as part of the Financing UK Nature Recovery Initiative to provide a framework for a Roadmap and Recommendations for scaling up high-integrity environmental markets in the UK.

The Roadmap and Recommendations will be published at COP26.

VISION

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

FRAMEWORK FOR INVESTMENT

The Investment Framework lays out the key elements required for high-integrity markets for nature-based environmental services:

- **Market Design**, which requires an effective policy framework, incentives and regulation and a supportive institutional architecture. The role of emerging corporate disclosure and voluntary commitments will also need to be considered in the market design.
- **Market Governance**, which ensures robust data, standards and accreditation are in place using mechanisms that are proportionate and minimise transaction costs. There is also a need for the environmental outcomes delivered to be monitored and verified and for any non-compliance with the required standards to be identified and addressed.
- **Market Operation**, which provides the market rules, contract and funding mechanisms and market infrastructure. Given nature is site-specific, markets also need to be developed and operated within a local delivery framework.



STRATEGIC DIRECTIONS

Delivering the framework and mobilising private investment for nature, requires action by UK governments, business and the environment and finance sectors. After extensive engagement with market participants, the Coalition has identified seven 'strategic directions' to inform these actions and guide the development of more detailed recommendations for the final Report.

1. ESTABLISH NATURE-POSITIVE TARGETS	Long-term and legally-binding nature-positive targets, with early clarity about the contributions required from different sectors, would set a direction for policy as well as send a signal to the finance and private sector that would drive investor appetite for nature-positive projects and activities.
2. LEVEL THE PLAYING FIELD FOR NATURE	Nature-based solutions need to be on a level playing field when it comes to environmental and economic regulation and the tax treatment of land used to deliver environmental services. This is particularly pressing in the agriculture and the water sectors to address regulatory uncertainty.
3. ESTABLISH CLEAR RULES FOR BLENDING PUBLIC AND PRIVATE FINANCE	Blended finance models that crowd in private sector finance are needed to reach nature recovery targets and can provide an efficient use of taxpayer money. Within agri-environment schemes, greater clarity on what outcomes and services public funds are (and are not) buying need to be set out at a national level and applied locally, to ensure private finance is not crowded out and avoid issues of additionality. Priority for public funding needs to be directed towards outcomes for which there is no actual or potential buyer in the market. Mechanisms such as regulatory sandboxes need to be used to help demonstrate how outcomes-based approaches will work, for example catchment-based investment in the water sector and stacking of environmental services.
4. ACCELERATE STANDARD DEVELOPMENT	A coordinated system of standard development will be essential to the effective operation of markets for nature-based environmental services. Overarching standards for each category of environmental service are also required.
5. DETERMINE THE MECHANISM(S) FOR ACCREDITING DELIVERY	<p>An accreditation authority is needed to:</p> <ul style="list-style-type: none">• 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 has been generated.
6. ESTABLISH A LOCAL DELIVERY FRAMEWORK	By definition, markets in nature-based environmental services are local markets. Private investment at scale will not be achieved if investors have to navigate myriad different local delivery mechanisms. There is a need to develop and demonstrate consistent market mechanisms that operate in accordance with standard principles and market rules, while accommodating local economic and environmental conditions and priorities.
7. LEAD THE TRANSITION	UK markets for nature need an effective governance framework, an institutional architecture to oversee market operation, and to develop a mechanism (committee or Taskforce) to coordinate and drive policy and programme delivery.

INTRODUCTION

As the Dasgupta Review¹ has highlighted, institutional failure has led to systematic underinvestment in the protection and restoration of nature and the environmental services nature provides. The scale of change required to meet commitments to restore nature to address both biodiversity loss and climate change across the UK is beyond the resources available from government and philanthropic sources alone. Decisive action is therefore required. A comprehensive strategy and framework for investment are needed to substantially increase the level of private sector investment in nature recovery.

A key way to attract private investment is to create efficient and high-integrity markets for nature-based environmental services. However, the risks in harnessing market forces in the service of environmental improvement, without a robust framework in place are significant and well-documented. Environmental markets therefore need to be well designed, properly governed and effectively operated, to ensure real improvement in nature and the state of the natural environment.

Establishing and implementing such a framework is no small task, but one that is urgently needed. In response to the global biodiversity crisis markets for nature are emerging and significant private capital is available for investment. The UK and its devolved administrations are well placed to learn from international experience and build on its existing reputation in establishing global standards for market integrity.

By establishing high-integrity environmental markets, the UK and its devolved administrations can ensure private investment in nature makes both business sense and a major contribution to halting nature's decline.

This document has been developed through a dialogue with a wide range of stakeholders including workshops on Stacking and Bundling (May 2021) and Data, Standards and Accreditation (July 2021). The purpose of the document is to consult on a **Vision** and draft **Framework for Investment** that sets out the key elements required for the UK to establish high-integrity markets for nature-based environmental services, and the **Strategic Directions** that need to be taken to create these markets.

This document is divided into two parts:

- **Part A: Investment Framework** sets out the key elements required for high-integrity markets that can drive UK nature recovery.
- **Part B: Strategic Directions** sets out the key areas for action needed to implement the Framework and build trust and confidence in these markets.

The consultation will inform the Coalition Report on Financing UK Nature Recovery to be published later in the autumn. In addition to the Vision and Framework for Investment, the Coalition Report will include a Roadmap and Recommendations for governments, businesses, and the financial sector to establish the UK as a high-integrity market for nature-based environmental services.

¹ Dasgupta, P. (2021), The Economics of Biodiversity: The Dasgupta Review. (London: HM Treasury).

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; and
- providing an efficient mechanism to deliver value for money for public funding and regulated expenditure alongside private investment.

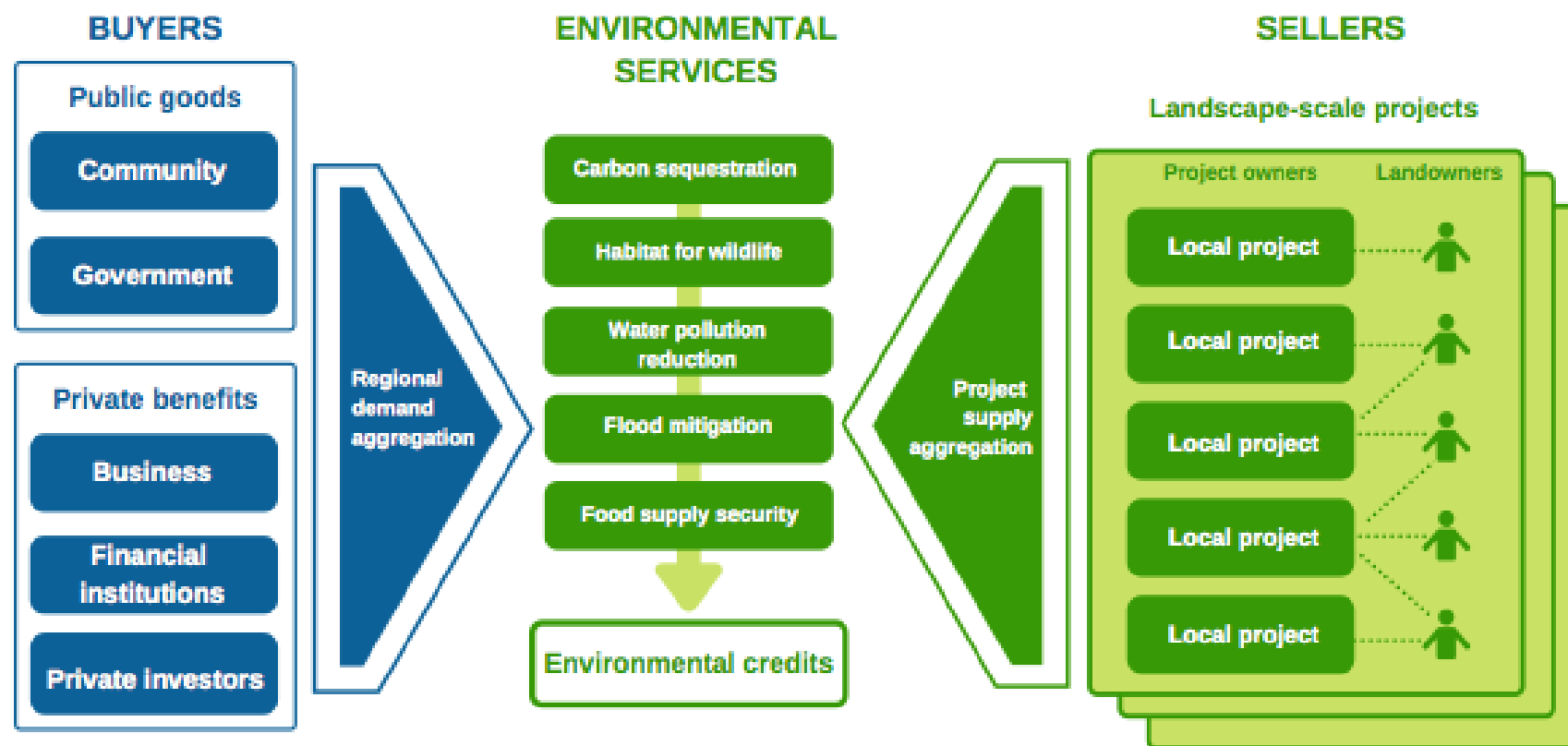
and **mobilising the data, knowledge and expertise required to deliver nature-based solutions** across the UK to make a significant **contribution to regional and local economies.**



HOW DO MARKETS FOR NATURE WORK?

Nature-based projects such as the creation of woodland, wetlands and other habitats can be integrated 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 provide a mechanism to bring landowners 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 below.

Figure 1 - Market Mechanism for Nature-Based Environmental Services



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

To facilitate market operation, 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 model expected cash flows to become investment ready. Access to a source of patient or concessionary capital is then required for the project to demonstrate the scale of revenues needed to attract major capital investment.

Figure 2 - Phases of nature-based project development



Source: *Financing UK Nature Recovery, Broadway Initiative, Green Finance Institute, Finance Earth, November 2020*

If the UK is to attract a significant share of the global capital available for nature-based investment, a robust strategy and investment framework is needed create the right conditions for private sector investment.

PART A: INVESTMENT FRAMEWORK

The Investment Framework 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. It has been informed by examples from international and domestic environmental services markets.

Figure 3 - Investment Framework for High-Integrity Environmental Markets



The rest of **Part A** describes each of these elements, why they are needed and how they interact, to provide the assurance required by the public, investors, landowners, and managers. **Part B** then sets out the directions for the specific actions required to implement the framework.

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 consequent 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:

- activity-specific targets such as defined types and quantities of habitat creation and restoration, backed by well-defined property rights to the environmental services delivered by these activities;
- 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 for the allocation of public funding and 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 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.

The need for market participants to engage with multiple institutions and processes needs to be minimised, to keep barriers to entry low and limit transaction costs as far as possible, 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.

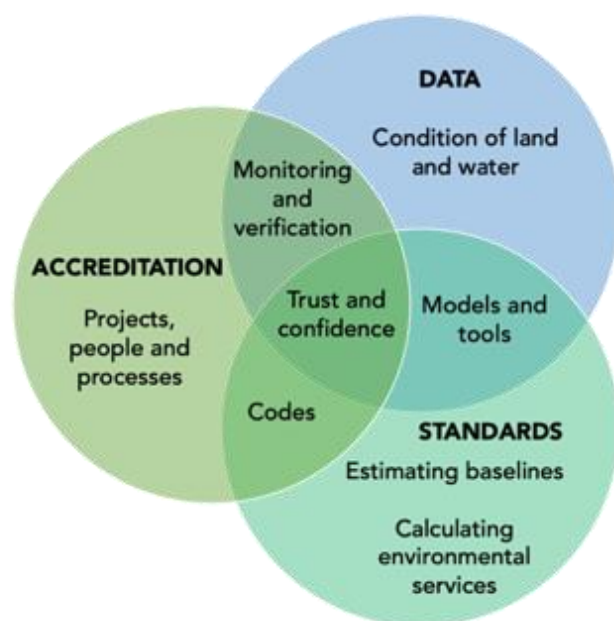
CORPORATE DISCLOSURE AND VOLUNTARY COMMITMENTS

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. 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.

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 4 - 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 project 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 data sets 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

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. Standards also need to be maintained and amended in a transparent and predictable way in response to development in scientific knowledge.

ACCREDITATION

Rigorous accreditation of nature-based projects and the environmental services they deliver is critical to the development of high-integrity environmental markets. Accreditation involves both project assurance and certification, which needs to be carried out by a trusted independent authority. Efficient matching of buyers and sellers requires assurance that nature-based projects have been delivered to approved standards.

The environmental services delivered by these projects also need to be certified using a common and widely accepted currency of units, linked to targets and regulatory requirements. Organisations and individuals who have the authority to confirm that projects have been delivered to the required standards are needed to support market operation. Codes that set out 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 take into account the need to maximise resources for on-ground delivery and avoid burdening low-risk projects with costs that outweigh the benefits.

MARKET OPERATION

MARKET RULES

Effective markets for environmental services such as renewable energy (UK), air quality (US), and water quality (Australia) 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

Market infrastructure is needed to support market operation and provide both financial and environmental transparency.

Market registries (operated by a government agency or 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.

On-line 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.

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 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.

Landowners 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 B: STRATEGIC DIRECTIONS

Markets for nature are already rapidly developing. The Investment Framework outlined in Part A sets out what is required to ensure that markets for nature-based services that develop across the UK are of high integrity.

Part B sets out **key actions required to facilitate market development in a way that establishes and maintains public, buyer, seller, and investor confidence.**

Seven UK-wide strategic directions are set out below. The policy context and priorities for delivery are expected to vary across the different UK administrations. Dialogue between the different administrations is needed to identify where the establishment of UK-wide mechanisms may be mutually beneficial.

- Establish a Nature-positive target
- Level the playing field for nature
- Establish clear rules for blending public and private finance
- Accelerate standard development
- Determine the mechanism(s) for accrediting delivery
- Establish a local delivery framework
- Lead the transition

NATURE POSITIVE TARGET

Long-term legally-binding environmental targets are an important driver for the development of policies and programmes to restore nature in ways that contribute to mitigating and building resilience to climate change and improve other aspects of the physical environment. Legally binding targets for nature recovery are crucial for setting the level of ambition and holding governments to account for establishing effective policies and programmes to deliver on these targets.

Establishing clear nature positive targets and obligations for their delivery will help investors to quantify nature-related risks.

Governments need to develop an integrated set of environmental targets that are sufficiently robust to track progress, but do not create excessively complex and costly monitoring requirements that divert limited resources away from on-ground delivery. This is particularly important because on their own long-term targets do not drive investment in on-ground action.

By way of illustration, the legally binding target to de-carbonise the economy could not be achieved without delivery targets and concrete mechanisms to drive investment in clean energy through, for example, renewable energy. Similarly, a legally binding target for biodiversity such as species abundance and diversity, needs to be backed by clear targets and binding obligations on specific sectors and businesses to invest in nature and nature-based solutions.

Developing markets for nature-based environmental services to deliver on a nature positive target such as habitat creation will promote competition that can drive both innovation and efficiency.

LONG, LOUD AND LEGAL

To be effective, implementation plans to achieve long-term targets for the natural environment must be 'investment grade', and establish 'long, loud and legal'² *obligations* for nature recovery. As has been demonstrated in the clean energy sector, the investment certainty provided by such obligations can facilitate the creation of markets that will attract investment at scale.

Delivery targets and obligations need to be:

- of a sufficient duration to incentivise project developers to create a pipeline of projects and the finance sector to develop nature-related financial products (Long);
- at a scale to justify costs of market design, governance, and operation (Loud); and
- binding on obligated parties (Legal).

It needs to be clear as early as possible what contribution towards the delivery targets different sectors such as farmers and land managers, water businesses, supermarkets and food retailers, and extractive industries and developers need to make, and how these obligations will be incentivised, monitored, and enforced.



² Kirsty Hamilton, *Unlocking Finance for Clean Energy: The need for 'Investment Grade' Policy* Chatham House December 2009.

HABITAT CREATION TARGETS

In markets for environmental services, complexity means cost. Simple-to-understand delivery targets are needed that reflect the type and location of the land-use change required. For example, if a long-term target for biodiversity is species diversity and abundance, achieving that target will require a diverse range and distribution of habitats to be created and restored, including improving the habitat value of agricultural, forested, and urban landscapes.

TARGET SETTING

Hectares of habitat created or restored is a readily understandable target. It is a target that can be set for defined geographic areas and can be based on measurement standards such as the Biodiversity Metric.

The target needs to provide certainty at an area, catchment, or regional level of:

- the type(s) of habitat needed (scope of the market);
- the quantity of habitat required (size of the market); and
- the timeframe over which the habitat needs to be delivered (the market duration).

The target needs to be phased over the delivery timeframe with annual delivery targets set from the outset that increase over time, reflecting the time and resources needed to build delivery capacity and the project pipeline.

TARGET DELIVERY

Market mechanisms need to be used to establish how much buyers are willing to pay for each type of habitat in different locations (market price). The wider environmental services that habitat creation and restoration projects achieve can be accredited and sold to buyers to offset the cost of delivery.

Multi-buyer multi-benefit markets that bring together all parties together in an area, region, or catchment to establish what needs to be delivered, in which locations, and at what price, can substantially reduce the time, complexity, and cost of developing individual bespoke investment proposals.

Standardised market rules that can be adapted to local conditions and combinations of buyers and sellers, and governance models are needed to provide consistency for project developers and investors.

LEVEL THE PLAYING FIELD FOR NATURE

Nature-based solutions need to be on a level playing field when it comes to environmental and economic regulation, and the tax treatment of land used to deliver environmental services. 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.

ENVIRONMENTAL REGULATION

Today, the majority of people across the UK do not pay the full environmental cost of their activities. In many areas, economic activity is decoupled from its impact on the natural environment. In some cases, this is due to the absence of any practical (or politically acceptable) way of internalising these costs. In others it is a result of regulatory design or non-compliance.

The policy solution of 'polluter pays' is largely uncontested as a goal, but, at a practical level, achieving a fair transition to more sustainable practices is challenging.

In a global economy, environmental regulation that increases domestic costs risks displacing economic activity to countries with lower environmental standards. At a domestic level there is a need to support sectors to make environmental improvements that can then be underpinned by the progressive introduction of higher standards. Markets for environmental services can play an important role in this transition. But current input-based approaches to environmental regulation are a significant barrier.

Two sectors that are essential in reaching net zero and nature-positive goals are agriculture and water.

AGRICULTURE

Agriculture across the UK is undergoing a major transition with change in policy from a system largely based on direct payments to a system based on public funding for public goods, while new trade agreements following Brexit present both opportunities and threats. And like most other sectors it has work to do to improve its environmental performance.

Despite increasing regulation of farm nutrient management, water quality related to agricultural sources is still a significant problem in many areas of the UK. The solutions are not simple and will not be solved through stronger enforcement alone. Government-funded advice and grants have been successful in some areas, but less so where significant changes in land use or farming practices are required. One of the reasons is that grants do not provide an ongoing revenue/income stream from the land. This is where high-quality markets for environmental services come in.

If for example, an arable farmer uses buffer strips and riparian tree planting to manage nutrients losses from their fields, these actions may also deliver habitat improvement, carbon sequestration and contribute to natural flood risk management. If the farmer knows that these co-benefits can be sold in environmental services markets to provide an on-going income, they are more likely to adopt these practices and maintain them over the long term. These payments represent a stable and diversified revenue stream for the farmer. They also release public funds to be targeted towards the delivery of more ambitious environmental benefits that do not have private markets, or towards areas where private investment is not forthcoming.

Policies and regulation that either prevent or place a disproportionate burden on farmers and landowners seeking to access market incentives, create problems of free riding. They also reduce the incentives for nature-based projects and solutions that deliver integrated outcomes.

Land is a very limited commodity in the UK. If more land is to be used for nature and environmental services, the regulatory framework needs to properly value these uses. Markets are needed to establish prices for nature and environmental services, that will enable landowners to obtain an economic return from conserving and enhancing the natural environment.



WATER

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 engineered solutions that provide high levels of regulatory certainty at these particular locations. But as treatment facilities are progressively upgraded this becomes less economically efficient (e.g. low level of capital utilisation) and/or more environmentally harmful (e.g. energy and chemical use).

Current regulation with its focus on point source water quality, does not readily accommodate nature-based solutions that deliver water quality improvement across a catchment, as well as contributing to nature recovery and other environmental benefits. This is in part a legacy of EU regulation.

Water businesses, whether privately or publicly owned, are well placed to make a major contribution to integrated environmental improvement at a catchment level. But fundamental changes to both environmental and economic regulation are needed if this is to be achieved.

Firstly, environmental regulators need to set outcome-based targets for the full suite of environmental outcomes at a catchment level and use these as the basis for water company environmental investment.

Secondly, regulations need to be developed to accommodate standards for measuring and accrediting the water quality improvements from nature-based solutions, and provide the regulatory certainty needed to reduce risk and cost for water businesses to put nature-based solutions on a level playing field with traditional asset-based solutions.

Thirdly, a proportionate approach to monitoring and verification of nature-based solutions at a catchment level is needed to ensure substantially more of the regulated expenditure goes to on-ground delivery.

And finally, clear direction needs to be provided to economic regulators about the investment certainty needed for water businesses to deliver long-term environmental improvements.

Greater ambition is needed for the role of water businesses as a catalyst for environmental improvement at a catchment level. And a decisive post-Brexit modernisation of the current regulatory framework is urgently needed to complement the move across UK administrations to more integrated suites of environmental targets.



ECONOMIC REGULATION

Current economic regulation of water businesses also provides strong incentives to focus on investment in built assets.

Nature-based solutions are long-term investments, yet they are currently required to be funded from operating expenditure within a single regulatory price cycle. This presents significant financial risk in terms of revenue uncertainty which favours asset-based solutions that can be incorporated into the company's regulated asset base. Water businesses need equally strong incentives to invest in nature-based solutions.

As a matter of principle, investments by water businesses in natural capital should be treated in a similar way to investments in built capital. However, in the absence of regulatory certainty about how environmental services from nature-based solutions will be treated by environmental regulators (see above), water businesses rightly perceive nature-based solutions as high risk.

Economic and environmental regulators need to work with water businesses on catchment scale demonstration projects that can develop and test methodologies to both fund and accredit nature-based solutions on a level playing field.

TAX SYSTEM

Uncertainty around how land use for nature-based solutions will be treated by the tax system is currently a barrier for farmers and landowners 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.

There is a need for a review of tax treatments of land used for nature-based solutions and environmental services in different UK administrations, to clarify the current position and identify areas in need of reform including but not limited to income and inheritance tax. Clear advice with guidance based on practical examples for landowners and managers is also needed in individual administrations.

BLENDING PUBLIC AND PRIVATE FINANCE

Nature, and the environmental services that nature delivers, provide both public and private benefits which vary across areas, catchments, and regions. Blending public funding, regulated expenditure, and private finance can achieve a fair allocation of the costs and benefits of nature recovery. Where the policy framework in a particular jurisdiction supports and encourages blended finance, high quality markets for nature-based services can provide an efficient mechanism for doing so that avoids the complexity and costs of assessing the share of these benefits on a project-by-project basis.

Mechanisms for blending funding and finance are also needed to avoid perverse outcomes driven by single-outcome funding silos, and the complexity and inefficiency for buyers and sellers having to navigate multiple schemes. Another objective of blending public and private finance is therefore securing the most efficient combination of nature-based projects that deliver the greatest overall environmental benefit. Two of the most important sources of funding for nature recovery across the UK are agri-environment schemes and the regulated environmental expenditure of water businesses.

THE FUTURE FOR AGRI-ENVIRONMENT SCHEMES

Brexit has created a once-in-a-generation opportunity for all UK administrations to rethink and redesign public investment in environmental land management.

It is clear that government grants and payments for environmental services alone cannot address the institutional failures that are distorting the economics of land use in the UK and driving nature's decline. Putting UK nature and its recovery onto a sustainable financial footing requires things to be done differently.

For blended finance solutions to work efficiently, funding providers need a common set of environmental targets agreed at the outcome level for particular projects, areas, catchments, and regions. Otherwise, project development becomes extremely complex and costly if different funding providers have highly specific requirements for each individual project to which their funding is directed.

There is a need to widen the options from paying fixed prices for a set menu of environmental activities, to mechanisms that allow public funding to be combined with private capital to fund nature-based solutions and projects that deliver multiple environmental outcomes. Clarity over what outcomes and services public funds are (and are not) buying need to be set out in principle at a national level and applied locally, to ensure private finance is not crowded out and avoid issues of additionality. Priority for public funding needs to be directed towards outcomes for which there is no actual or potential buyer in the market.

Governments need to show leadership by moving to make public funding available for nature-based solutions in areas, catchments, and regions against an agreed set of outcome-based targets. This will enable portfolios of projects to be developed that can be aggregated to attract private investment and deliver an integrated solution at the local level.

WATER INDUSTRY INVESTMENT

Water price reviews need to recognise the scale of change required to achieve nature recovery and environmental improvement and ensure that customers obtain better overall environmental outcomes and lower costs through integrated investment in environmental improvement.

As environmental regulation is modernised, regulators need to actively encourage the use of mechanisms such as 'regulatory sand boxes' to enable water businesses to demonstrate how outcome-based, catchment-focused system can become a standard approach. This will provide a mechanism for transition to a system where water company environmental performance is monitored in terms of contribution to overall environmental outcomes achieved in its region.

Such an approach needs to demonstrate how engineered and nature-based solutions can be combined to deliver greater value in terms of water quality improvement, such as nutrient reduction at a catchment level and wider environmental benefits, in particular habitat creation, carbon sequestration and natural flood risk management.

STACKING AND BUNDLING

The economic cost of delivering nature-based projects varies significantly both across the UK, and between individual landowners and managers within a local area. Each landowner or manager has a different opportunity cost of investment in nature which well-designed markets for nature will reveal.

Where nature-based solutions deliver multiple environmental outcomes, farmers and landowners need to be paid for these services. In many areas, multiple revenues for individual environmental services will need to be combined to pay farmers and landowners an economic price to integrate nature with productive agriculture and forestry. Climate resilient nature recovery cannot be achieved solely by paying for nature-based projects on the lowest value land.

High-integrity markets ensure that neither taxpayers nor investors pay for environmental services that are not actually delivered. To achieve this level of assurance, transparent standards are needed that measure the environmental services delivered by different types of (bundled) nature-based projects and solutions.

With transparent standards and robust accreditation processes in place, market prices for nature-based projects will adjust to find the efficient price, and payments for individual (stacked) environmental services can then be sold with confidence to different buyers. In other words, efficient markets, once established will ensure additionality through price setting.

However, in the early stages of market development there will be a need to actively ensure that nature-based projects meet additionality principles. A risk-based approach to additionality is needed from funding bodies and regulators to provide robust assurance without imposing excessive costs on landowners.

Stacking of environmental services from well-designed and accredited nature-based projects should be allowed in principle to avoid problems of free riding, subject to clear evidence of a significant additionality risk in particular cases. Where credits for environmental services from nature-based projects are being used to mitigate or offset loss of habitat or reduce environmental pollution, a more precautionary approach may be warranted where the regulator provides clear evidence of a systemic increase in risk that cannot be managed.

Well-designed regulation will however avoid problems such as asymmetrical accounting, to ensure that landowners and managers delivering nature-based projects that provide multiple environmental services are not expected to provide co-benefits for free.

Learning the lessons from other environmental markets, there is a need to move quickly to establish the market governance and infrastructure for measuring, registering, and accrediting nature-based projects and the environmental services they deliver, along with the monitoring, verification, and compliance processes to ensure that UK markets for nature are of the highest integrity.

There is a particular need for registries to be established from the outset of these markets that track market participants, projects, and environmental credits to help provide transparency and market assurance.

ACCELERATE STANDARD DEVELOPMENT

It is clear from the experience in voluntary carbon markets in particular, that a coordinated system of standard development will be essential to the effective operation of markets for nature-based environmental services.

Although specific standards are required to measure particular environmental services from specific types of nature-based projects, the transaction costs of 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.

Overarching standards for each category of environmental service are also required. For example, a common standard for carbon sequestration from all natural ecosystems is needed to ensure that carbon credits from nature are of the same quality to provide certainty for both investors and regulators. Similarly, a common standard for nutrient reduction from nature-based projects will provide certainty for water businesses, housing developers, farmers, and land managers.

Public investment to accelerate standard development for some important environmental outcomes such as natural flood management and soil carbon is urgently needed to prove the environmental outcomes and unlock revenue streams for nature-based delivery from sources such as flood insurance.

ACCREDITING AND VERIFYING DELIVERY

A comprehensive set of standards for measuring the environmental services from nature is on its own insufficient for markets to operate. An authority is also needed to accredit nature-based projects and verify the environmental services delivered.

At its core accreditation involves creating and managing the property rights to environmental services from nature. These property rights are typically in the form of certificates backed by the authority that can be reliably bought, sold, 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.

A single accreditation authority for both voluntary and regulated nature-based environmental services is needed to provide transparency and efficient operation of nature-based markets. Such an authority will need to work very closely or be integrated with similar organisations established to oversee voluntary carbon markets.

The accreditation authority will also need to work with environmental regulators over the medium to long-term to verify that the environmental outcomes being achieved on the ground match the quantity of environmental services accredited. This is necessary to balance the market over the long term and ensure that the investment in nature-based environmental services is helping to meet statutory targets.

LOCAL DELIVERY FRAMEWORK

Markets for nature need to operate in a local delivery framework because both nature and the quality of the environment are place-based. Greenhouse gas emissions and their impact on climate change are the exception.

Private investment at scale will not be achieved if investors have to navigate myriad different local delivery mechanisms. There is a need to develop and demonstrate market mechanisms that operate in accordance with standard principles and market rules, while accommodating local economic and environmental conditions and priorities.

As an example, auctions provide an effective way of discovering the price of particular land-use changes. However, reverse auctions can favour buyers by leveraging market power. Depending on the auction design this may not lead to a fair sharing of the value of nature-based projects and solutions between farmers and land managers and the buyer of the environmental service. Single outcome auctions (or markets) are a particular problem, where farmers and land managers are not paid for the full range of environmental services that their land use delivers.

Across the UK, land is overwhelmingly privately owned and therefore governments can influence and incentivise but cannot directly control decisions taken over investment in nature. And after many decades of central and local planning of where nature recovery is most needed, the uptake of government schemes in these areas remains patchy at best. A broader focus on where investment in nature makes good business sense and delivers on priorities for nature recovery is needed to ensure nature recovery across the landscape, including in protected areas.

As an example, a shift to multi-buyer, multi-benefit markets can provide farmers and land managers with the incentives to identify and deliver nature-based projects that optimise environmental outcomes across the landscape, and at the same time reduce the delivery cost of individual environmental services.

Patient and concessionary capital is critical to establish these markets at an efficient scale. Funding for demonstration projects at a landscape scale is needed that can underwrite private investment in these markets. On-going support for local capacity building is also required.

LEAD THE TRANSITION

UK markets for nature need an effective governance framework, an institutional architecture to oversee market operation, and a mechanism to coordinate and drive policy and programme delivery.

MARKET GOVERNANCE

To provide the level of assurance required, an overarching governance framework is needed that:

- defines the roles and responsibilities of market participants and other stakeholders;
- ensures standards are developed in a consistent and coordinated way, and maintained in a transparent and predictable manner based on the best available science;
- provides a mechanism to authorise individuals and organisations to accredit nature-based projects and the environmental services they deliver;
- ensures the development and consistent use of a transparent system of registration of projects and the environmental services delivered;
- provides market oversight of voluntary and regulatory markets in terms of compliance with market rules and environmental regulations;
- establishes principles for how market infrastructure should work, including trading platforms and market settlement mechanisms; and
- ensures routine reporting on the structure, conduct and performance of markets for nature.

There is a need for UK governments to discuss and agree the most effective way to establish such a governance framework and the institutional architecture to drive delivery.

DELIVERY COORDINATION

Delivering high quality markets for nature requires coordinated action across governments, industries, business, and the community, including, in particular, mechanisms to coordinate markets for nature with the development and delivery of voluntary carbon markets.

A delivery mechanism with appropriate UK-wide governance is needed to:

- oversee the Roadmap for the delivery of the Investment Framework;
- coordinate the development and delivery of specific policies and programmes to implement the Framework;
- provide input into the market governance framework and institutional architecture;
- liaise with organisations and individuals leading the development of voluntary carbon markets;
- provide a mechanism for governments to test policy and programme options; and
- facilitate knowledge sharing.

The delivery mechanism should operate for three years in the first instance and be supported by a secretariat drawing on resources from across UK administrations.

PROVIDING FEEDBACK

The Financing UK Nature Recovery Coalition is seeking feedback on these Strategic Directions to help shape the Roadmap and Recommendations to be published in the autumn.

A webinar series will be held during September to provide an opportunity for interested individuals and organisations.

Written submissions can be made through the Financing UK Nature Recovery website at <https://financingnaturerecovery.uk>

