



Broadway INITIATIVE

Accelerating private investment in nature-based solutions

**A proposal for
Government to
support a Green
Recovery**

July 2020



This paper is divided into two main sections.

SECTION A sets out the opportunity for action, and the challenges that need to be overcome to accelerate private investment in nature-based solutions, including the importance of delivery at a landscape scale and the role of the private sector.

SECTION B outlines a proposal to establish a portfolio of large-scale demonstration projects including the aims and objectives of each demonstration, the public funding and governance options and details of the next steps.

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This Proposal has been developed through dialogue with business groups representing sectors directly involved in nature-based solutions to environmental problems: Water UK, the Food and Drink Federation, the Country Land and Business Association, and the Home Builders Federation; with the Institute of Environmental Management and Assessment, the Local Government Association, the Wildlife Trusts, Environmental Finance and the Green Finance Institute.

It is underpinned by detailed analysis of three case studies of existing delivery models, and the identification of a pipeline of potential projects.

It draws on the expertise of businesses that are leading the way in private investment in nature: EnTrade; the Environment Bank; and LENS.

Overview

Catalysing private sector funding and investment in the natural environment is necessary to meet the goals of the 25-Year Environment Plan and the net zero emissions target. The green recovery from the Covid-19 pandemic presents a major opportunity to accelerate this funding and investment.

The key to unlocking investment is delivery at scale. As the new post-Brexit architecture for the natural environment is being designed and built, we have a narrow window to demonstrate the conditions necessary for private investment, and embed these in new delivery mechanisms.

Accelerating private investment in nature-based solutions will:

- provide a new source of income for landowners and managers by paying for the environmental services delivered by making changes to land use and management, such as creating new woodlands and riparian habitats;
- join up public and private funding streams to get better value for money, and deliver more sustainable outcomes, including avoiding 'carbon landscapes';
- speed up the development of markets for environmental services including water quality improvement and biodiversity net gain credits for new housing;
- enable UK businesses to confidently invest in carbon offsets from nature-based projects and attract international carbon offset investment; and
- position the UK as a world leader in financing action on climate change and nature recovery.

To help capture this opportunity, this paper:

- proposes that Government provides a minimum of £100 million of cornerstone funding for a portfolio of 12 - 20 large-scale demonstration projects at catchment or city-scale across the country to leverage at least £100 million of additional private funding;
- outlines how the portfolio would inject funding into local communities to deliver immediate environmental improvements on the ground and demonstrate the necessary conditions for private funding and investment in the longer-term;
- identifies project selection criteria, and funding and governance options for the portfolio, to ensure value for money and manage delivery risk; and
- outlines the next steps to capture this opportunity, with support from the finance and business communities.

The projects for the portfolio would be selected competitively to ensure the best outcomes nationwide.

Summary

The opportunity for rapid action

The UK is well positioned to harness the power of markets and private investment in nature-based solutions

UK markets for private investment and finance are mature, and capable of funding nature-based solutions, provided there is sufficient confidence in the cash flows that are available. The Government has recognised the need for mechanisms to unlock private revenue streams for the natural environment in its Green Finance Strategy. Businesses already exist that aggregate nature-based projects and sell their environmental benefits to a range of willing buyers. However, to be attractive to private funding and finance, these business models need to be scaled up. The immediate health and economic crisis creates both an opportunity and a need for rapid action. Demonstrating the power of markets and the private sector to support a green recovery will help shape a post-Brexit policy framework that catalyses private funding and investment over the long-term.

Delivering the post-Brexit architecture for nature-based solutions

The landmark Environment and Agriculture Bills will provide a new architecture for nature and sustainable land use

The Government has set out an ambitious post-Brexit legislative architecture for the natural environment based on the principles of public funding for public goods, polluter pays and net environmental gain. The combination of long-term targets, nature recovery strategies, net zero for carbon emissions and net gain for biodiversity creates the potential for nature-based solutions to make a major contribution to environmental improvement.

But delivery mechanisms need to be joined up to facilitate investment

Because nature-based solutions deliver both private and public goods, there is a need for well-designed delivery mechanisms that facilitate private funding and investment alongside public funding. To ensure value for taxpayers' money, there is also a need for mechanisms that overcome existing policy silos and deliver integrated outcomes on the ground. Broadway Initiative is working with national and local stakeholders to develop a framework for local delivery to help inform the design of these mechanisms.

We have a narrow window to act

There is a narrow window to demonstrate how to create the necessary conditions for private investment, and embed these insights in the design of the new Environmental Land Management Scheme (ELMS), new mechanisms under the Environment Bill and the successor to the current Water Industry National Environment Programme (WINEP).

Overcoming barriers to private investment

Access to capital is not the problem

Investment at scale is being hindered by the current lack of coherence between: environmental regulation; existing public funding mechanisms; and incentives for private investment. This is creating barriers that substantially increase the cost of developing and aggregating nature-based projects to investment scale.

What is lacking is scale, certainty and liquidity

Firm environmental targets and certainty of public funding for catchments and regions will facilitate integrated on-ground delivery and provide a catalyst for private investment. Mechanisms such as catchment markets, habitat banks and regional aggregation brokers can demonstrate how aggregating projects and creating liquid markets for environmental services will attract investment and ensure value for money. Public funding for nature can be used to demonstrate these mechanisms at scale and provide evidence of how to overcome the barriers to investment.

A portfolio of demonstration projects

Cornerstone funding for landscape-scale demonstration projects can fast track private investment

Broadway Initiative has developed a proposal to leverage public funding to accelerate the development of experience, evidence and confidence in nature-based solutions. The proposal involves using a proportion of the available public funding for nature recovery as a cornerstone investment for a portfolio of 12-20 multi-year landscape-scale demonstration projects across the country. At least £100 million of project funding over four years would be needed to achieve the scale of private investment required for the portfolio. A further £10 million would be needed for project development, aggregation and market development. The target for private investment would be a minimum of £100 million of additional private funding.

Market mechanisms can ensure value for money

Funding would be provided through a competitive process to organisations whose projects demonstrate their capacity to achieve private investment benchmarks and outperform existing delivery mechanisms. Portfolio governance and private sector market discipline will ensure that combining public and private funding delivers value for money and accelerates progress towards environmental targets.

Projects will deliver environmental targets, inject funding into local communities and facilitate economic development

The benefits of a well-structured portfolio of projects will include:

- delivering on environmental targets by integrating action on climate change with water quality improvement, biodiversity and environmental net gain and flood risk management at a landscape scale;
- investing in local economies, including creating jobs and providing new sources of revenue for farmers and land owners;
- reducing barriers to economic development, in particular housing development;
- securing funding from carbon markets, developing markets for environmental services and establishing a framework for local delivery;
- positioning the UK as a leader in financing climate action and nature recovery.

A signal to the private sector

Subject to a signal from Government that it supports this approach in principle, the next steps would be to bring the finance and business sector together with Government and third-party delivery organisations to develop a delivery plan for the portfolio.



SECTION A

The opportunity

Nature-based solutions involve protecting, restoring and managing the natural environment in ways that contribute to addressing societal challenges such as:

- climate change;
- flooding and coastal erosion;
- making cities more liveable;
- protecting food and water supplies; and
- improving water quality.

This section sets out the opportunity to accelerate private funding and investment in nature-based solutions to environmental problems as part of a green recovery from the current health and economic crisis.

It describes how, as the new post-Brexit architecture for the natural environment is being built, the UK's business and finance sector expertise can be mobilised to attract private finance to scale up delivery through a number of existing nature-based business models.

It also identifies the challenges and barriers to unlocking private investment, and why delivery at a landscape scale is key.

Nature-based solutions for a green recovery

There is a major opportunity to harness the power of markets and private investment to make a step change in the delivery of nature-based solutions to environmental and social problems.

UK markets for private investment and finance are mature, and capable of funding nature-based solutions, provided there is sufficient confidence in the cash flows that are available.

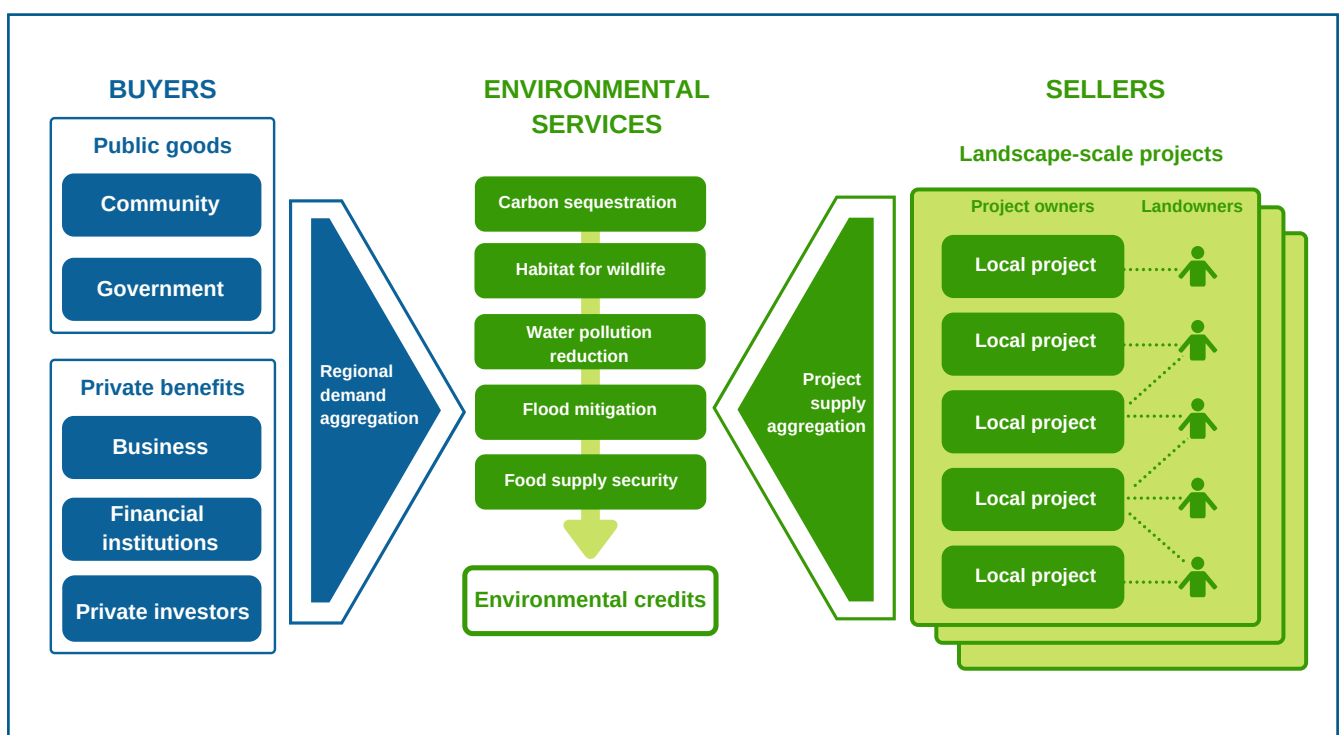
Innovative businesses already exist that aggregate nature-based projects and sell their environmental benefits to a range of willing buyers. However, to be attractive to private funding, these business models need to be scaled up.

Rapidly scaling up nature-based solutions can make a substantial contribution to:

- action on climate change;
- maintaining and improving our water quality;
- regenerating soils and increasing the sustainability of UK agriculture;
- increasing the resilience of our food supply chains;
- buffering us from natural disasters including floods and storms; and
- securing employment for people whose jobs depend directly and indirectly on nature.

The immediate health and economic crisis creates both an opportunity and need for rapid action to demonstrate the power of markets and the private sector to support a green recovery, and create a post-Brexit policy framework that will catalyse private investment.

Figure 1: The market for environmental services from nature-based projects



The new post-Brexit architecture

The Government has set out an ambitious post-Brexit legislative architecture for the natural environment including the principle of public funding for public goods from land use and management.

The landmark Environment and Agriculture Bills, along with amendments to the *Climate Change Act 2008*, establish: long-term targets; local nature recovery strategies; net zero for carbon emissions; and net gain for biodiversity. Together, these create the potential for nature-based solutions to make a major contribution to environmental improvement.

However, because nature-based solutions deliver both private and public goods, there is a need for well-designed delivery mechanisms that facilitate private funding and investment alongside public funding. There is also a need for local delivery mechanisms that overcome existing policy silos to deliver integrated outcomes on the ground and value for taxpayers' money.

There is a narrow window to demonstrate how to create the necessary conditions for private investment, and to embed these lessons learned in the design of new programmes and regulations including:

- the new Environmental Land Management Scheme (ELMS);
- new mechanisms under the Environment Bill, including net biodiversity gain and local nature recovery strategies;
- water industry regulation in general and the successor to the Water Industry National Environment Programme (WINEP);
- the use of funding generated through s106 agreements, Community Investment Levies and developer contributions.

A well-designed delivery mechanism will also help ensure that innovation and private investment is not crowded out by Government, which would remain the main buyer of environmental goods and services for which there are no private beneficiaries. In parallel, Broadway Initiative is developing a framework for local delivery that will provide comprehensive advice on local delivery.



Accelerating delivery

Across the country, innovative models such as catchment markets, habitat banks and regional aggregation brokers have emerged that bring action on climate change and nature recovery together, and show how public and private investment can be successfully combined.

These models have demonstrated their potential to be used to attract the private funding and investment needed to accelerate delivery of nature-based solutions.

Catchment markets

Catchment markets ensure that landowners and managers are rewarded for the full range of benefits delivered by nature-based projects. By aggregating buyers for multiple environmental services, catchment markets can accelerate changes in land use and management when the total value of the public and private cash flows from these environmental goods and services exceeds those from the current land use(s).

Delivery model

A catchment market:

- makes clear the level of environmental goods and services that will be delivered by changes in land management and use;
- establishes a marketplace for buyers of environmental services and landowners willing to make these changes;
- uses bidding mechanisms to establish the efficient prices for local nature-based projects; and
- aggregates local projects to substantially reduce the transaction costs to buyers of contracting for the environmental goods and services delivered.

Investment opportunities

There are opportunities to expand existing environmental services trading schemes to create integrated markets in several catchments, including in the Bristol Avon catchment (which was analysed for this proposal). These markets would generate a number of private investment opportunities including:

- direct investment in the on-ground projects in exchange for some or all of the rights to the environmental credits from the projects;
- project finance for the landowners to be repaid by revenues from the sale of the environmental credits;
- equity investment in the catchment market operator.

Habitat banks

The Environment Bill provides for mandatory biodiversity net gain as a condition of planning permission for new development, building on the practice already used by some local planning authorities. The 25-Year Environment Plan also signals the ambition to extend the requirement to environmental net gain.

Delivery model

A habitat bank works by:

- investing in nature-based projects that generate biodiversity and other environmental credits;
- establishing a market place where developers can obtain the biodiversity credits they need to meet the conditions of their planning approval;
- reinvesting in habitat creation projects to lower the cost of meeting planning conditions for future developments.

There are current proposals for habitat banks to be established in a number of urban, peri-urban and rural development areas of Northern England.

Investment opportunities

Private investment opportunities in habitat banks delivered at scale across urban, peri-urban and rural development areas could include:

- seed funding to establish the habitat banks with future return paid for the sale of biodiversity and other environmental credits;
- purchasing the rights to biodiversity credits from the habitat banks for sale to future residential and commercial developers.

Regional aggregation brokers

Different regions face different combinations of economic and environmental challenges.

Delivery model

Regional aggregation brokers:

- bring together businesses, Government and communities to agree on the challenges facing a region;
- agree on priorities and opportunities to address these challenges;
- develop consortia to deliver specific nature-based projects that will deliver environmental and economic benefits to the region.

Investment opportunities

There are a number of examples of how regional aggregation brokers are working in practice, including a current proposal in three areas of the Peak District.

Private investment opportunities include:

- lending to project proponents funded from the revenue from contracts with consortium partners;
- direct investment in the on-ground projects in exchange for some or all of the rights to biodiversity or environmental credits (for example facilitated through a catchment market).

Together these business models have delivered nature-based projects worth several million pounds. However, to scale up delivery there are a number of barriers that need to be overcome.



Barriers to investment

The capacity to attract private funding and investment for nature-based solutions is being hindered by a lack of coherence between:

- regulation;
- new and existing public funding mechanisms; and
- incentives for private investment.

Navigating this complexity substantially increases the cost of developing and aggregating nature-based projects.

Access to capital is not the problem. What is lacking is scale, certainty and liquidity.

The way to overcome the barriers to private funding and investment needs to be demonstrated in practice. Demonstration needs to be at a scale that builds confidence in the value of increased private sector involvement to government, the private sector, landowners and the community.

Scale

Nature-based projects are a new and unfamiliar asset class to private investment. Major investors will not be attracted to disparate small projects requiring modest amounts of funding.

In order to attract significant investment, there is a need for:

- demonstrations of mechanisms that can aggregate and sell the environmental benefits from nature-based projects;
- a pipeline of nature-based projects that can be efficiently aggregated into a portfolio or fund;
- scale and pipeline certainty to provide the incentives to develop the expertise to assess the asset class and its risks.

Certainty

To develop a reliable pipeline of investment-ready projects, there is a need for certainty and confidence for buyers, sellers and investors, in terms of:

- transparent standards for defining and measuring the multiple environmental goods and services delivered by nature-based projects, including to avoid double counting;
- clarity about how targets for the delivery of these goods and services apply in a catchment or region;
- a clear framework and rules for how public and private finance can be combined to fund on-ground nature-based projects.

Liquidity

To provide the liquidity necessary for efficient project delivery there is a need for:

- agreement on who is committed (or obliged) to contribute to the delivery of national and regional environmental targets and over what period;
- a commitment of public funding for a defined period that de-risks private investment;
- efficient mechanisms for setting the price of the environmental goods and services and reducing transaction costs.

Opportunities for the private sector

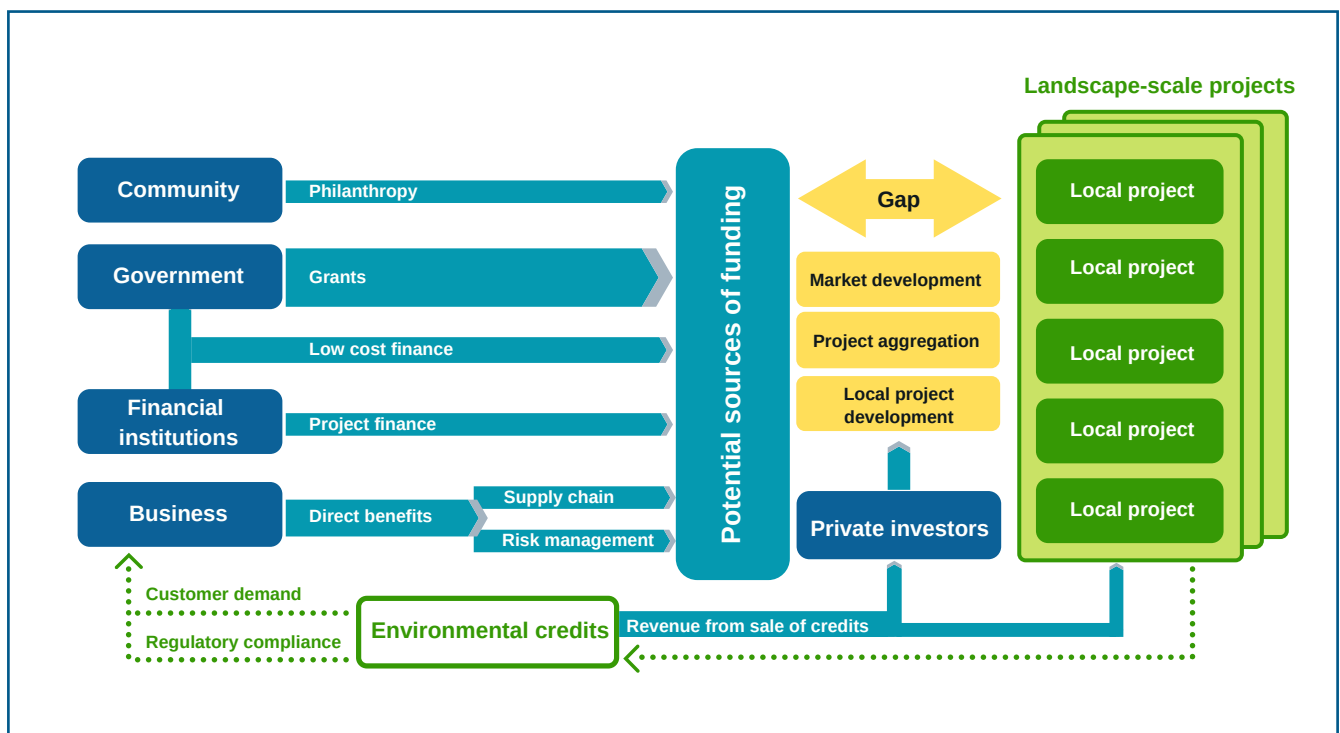
There are broadly three ways in which the private sector can become involved in nature-based solutions:

- as direct beneficiaries;
- as investors in projects, markets and delivery mechanisms; and
- by providing finance for projects and participants.

Nature-based solutions can deliver benefits to the private sector whether in the form of profit, resilience, compliance or mission.

Private sector investment can help bridge the gap between the current funding available and the pipeline of projects that can become commercially viable.

Figure 2: Bridging the gap to commercial viability



Business

Direct beneficiaries

Some businesses are already obtaining direct benefits from nature-based solutions by:

- providing direct funding for local nature-based projects that deliver company-specific benefits; and
- buying credits for the environmental goods and services delivered by nature-based projects (eg biodiversity and carbon offsets).

Direct funding

Direct benefits to companies of funding nature-based projects include:

- increasing the resilience of supply chains (eg food processing and manufacture); and
- risk management (eg lowering the cost of insurance premiums).

Buying environmental credits

Companies can also benefit from nature-based projects by buying environmental credits in order to:

- meet their regulatory compliance obligations at a lower cost than they would be able to through their own actions; and
- fulfil obligations to customers who have purchased goods or services on the basis of voluntary commitments to meet environmental standards and targets.

Table 1: Examples of the private benefits of nature-based projects

Motivation	Nature of investment	Examples
Customer demand	Project funding and/or purchasing environmental credits – to fulfil customer demand for sustainable supply	Supermarkets Airline industry Housing and property developers
Risk management	Project funding – increasing supply chain resilience and reducing corporate risk	Agribusinesses Food companies Other manufacturing
Compliance	Purchasing environmental credits – to meet regulatory obligations including: <ul style="list-style-type: none"> • net biodiversity gain • net zero carbon emissions 	Residential and commercial developers Water companies Intermediaries
Reputation	CSR funding for socially important outcomes	Banks Utilities

There is an opportunity to expand the direct benefits to businesses from involvement in nature-based solutions at a local and regional level.

Financial institutions and private investors

Investment in nature-based solutions

As the private sector becomes more familiar with how nature-based solutions create value, there will be opportunities for private investment in projects, markets and delivery mechanisms. Private sector investment will be rewarded through a share of the efficiency gains delivered by the increase in scale of markets for environmental services.

Local project investment

Nature-based project development is currently highly bespoke and costly. However, where nature-based projects can deliver significant revenue streams from sources such as those outlined in Table 1, there may be opportunities for the private sector to take the risk of funding the upfront cost of project development.

Funding project development will be most attractive where: there is a growing market for the environmental services; and the market is supported by Government. Investors would fund project development in return for a share of future project revenues.

Project aggregation

Small-scale bespoke projects are unlikely to be able to meet the hurdles for private investment. However, project aggregation to investment scale may reduce the cost of capital, increasing the number of projects that can become commercially viable.

There may be opportunities to invest in project aggregation mechanisms that can significantly reduce the cost of project development. Investors may fund project aggregation to secure profits earned from fees paid by buyers, whose cost to acquire a nature-based solution is substantially reduced.

Market development

There is strong private sector interest in nature-based solutions where there is an existing market, such as for carbon sequestration. Efficient markets for environmental services can significantly reduce transaction costs. However, markets for other nature-based environmental services are embryonic.

There is a significant cost associated with market development, including establishing standards for accreditation and verification of environmental services. With credible standards and verification in place, market development can be supported by:

- establishing guarantee mechanisms similar to the Woodland Carbon Guarantee for other environmental services; and
- regulatory reform to increase the flexibility for the private sector to meet its compliance obligations through nature-based solutions.

There may be opportunities for private investment in market development, particularly at a regional scale where there are major potential buyer(s) such as water companies (pollution reduction credits) and housing developers (biodiversity net gain).

Investors would fund market development to secure profit on commissions on trades of environmental credits and fees paid for accreditation and verification of environmental services.

Table 2: Summary of investment opportunities

Opportunity	Source of value	Source of profit
Local project development eg Habitat banks	Increased pipeline of nature-based projects	Share of project revenues eg sale of environmental credits
Project aggregation eg Regional aggregation brokers	Reduced cost of private finance Reduced cost to acquire nature-based solutions	Commission for arranging project finance Buyer fees for project aggregation
Market development and operation eg Catchment markets	Reduced transaction costs	Commission on environmental credit trades and fees for project accreditation and verification

Finance for nature-based solutions

Nature-based projects have particular characteristics which can make securing private finance challenging. There needs to be secure cash flows from a nature-based project if a bank or other financial institution is prepared to provide finance to the project owner.

If project owners have been able to secure firm contracts with buyers for the environmental services, there may be opportunities to provide funding for the capital cost of projects. Loans would be repaid from the revenues from these contracts.

In addition, buyers of environmental services may be unwilling to take the risk of entering into very long-term contracts with land owners. There may, therefore, be opportunities for specialised financial products that can reduce long-term risk for buyers of environmental services, while providing reliable income for landowners.

Co-funding development

Accelerating private investment in nature-based solutions will require significant funding for project development, aggregation and market development.

Public funding will be required to de-risk private investment in project aggregation until:

- markets for the full range of environmental services are established;
- nature-based solutions are a familiar asset class for private investment and finance; and
- business models for market development are well established and have demonstrated their potential to reduce the cost of environmental services.

However, the potential to expand the role of the private sector in delivering, investing and financing nature-based solutions needs to be demonstrated at geographic and investment scale.

The need for landscape-scale demonstrations

Private investment is needed to help increase the financial incentives to change land use and management to improve the environment.

However, the potential of private investment in nature-based solutions to accelerate delivery of environmental improvement cannot be properly assessed through modelling and analysis alone, or through small-scale pilots.

Confidence in the efficacy of private sector investment in nature-based solutions will come from evidence of successful on-ground delivery at both geographic and investment scale.

What does success look like?

The ultimate measure of success is whether significant private investment in nature-based projects can be secured in practice, and whether this investment actually increases the rate of positive land-use change.

On-ground demonstrations are essential to build the evidence base on what works and what doesn't, and how to align policy, regulations and incentives to catalyse private investment. The success of demonstration projects will be measured differently by different stakeholders.

For business, success will mean evidence of the commercial benefits that can be achieved from funding nature-based projects. Investors will need evidence of the cash flows and returns available from investing in nature-based projects.

Landowners will be expected to change their management or use of the land, if they are able to obtain the true value of the environmental services that nature-based projects deliver. Demonstrating that this is in fact the case is a key measure of success. In other words, demonstration projects need to provide the evidence that economic and cultural barriers to land use change will be overcome if the incentives are high enough.

Government needs evidence of value for money in terms of the cost to taxpayers of:

- land use change;
- delivery of environmental services;
- recovery of nature.

Success for communities means an enhanced environment and new opportunities for employment and recreation.

Demonstrations therefore need to be based on integrated outcomes for the environment, economy and community delivered at a landscape scale.

Integrated delivery

The 25-Year Environment Plan recognises that the environment is an interconnected system on which people and the economy depend. [1] However, environmental delivery is highly fragmented. Within a catchment or local area, different public agencies pursue different objectives often with separate processes for decision making. This is inefficient at best, and at worst, leads to perverse outcomes for the environment. There is a growing appreciation that accelerating action on climate change and nature recovery requires a bold and much more integrated approach. [2]

A feature of a number of the new business models is that they can demonstrate how to bring business, government and communities together to identify the outcomes and priorities for the environment as a whole across a catchment or regions.

A focus on integrated delivery can facilitate a shift from top-down prescription to outcome-based regulation, and create the flexibility to apply funding to nature-based projects that deliver across a full range of environmental benefits.

Landscape-scale

A key design principle for environmental programmes, including the new ELMS, is that they operate at a range of scales, including at the landscape scale. [3]

Landscape-scale delivery is critical for efficient investment in environmental outcomes. It ensures that funding goes to projects that are commercially viable for landowners and deliver the greatest overall environmental benefit. There is an urgent need to demonstrate how landscape-scale delivery can be achieved in practice.

The new business models aggregate environmental outcomes at the project level, and aggregate nature-based projects at a catchment or regional level to achieve targets and outcomes at a landscape scale.

Aggregation of environmental outcomes at a project level, and projects at a landscape scale, is critical to achieve the level of funding needed to attract significant private investment.

Scaling up existing delivery models

Scaling up existing delivery models will:

- demonstrate to the private sector the potential of nature-based solutions as an investment opportunity and a significant asset class;
- provide insights and evidence about the design of a framework for public-private investment in nature;
- help proponents of nature-based solutions to design their projects in ways that create the potential for private investment.

Public funding for nature can be used to underpin demonstrations of these mechanisms at scale. Funding landscape-scale demonstrations will also generate evidence of how to overcome the barriers to investment, helping Government to develop the mechanisms necessary to attract private investment in the longer term.

[1] HM Government, *A Green Future: Our 25 Year Plan to Improve the Environment*, 2018.

[2] Natural Capital Committee, *Advice on using nature-based interventions to reach net zero greenhouse gas emissions by 2050*, April 2020.

[3] Defra, *Environmental Land Management, policy discussion document*, February 2020.



SECTION B

The proposal

This section outlines a proposal to use public funding as a cornerstone investment for a portfolio of landscape scale demonstration projects in catchments and regions across the country.

It sets out the overall aims of the portfolio and the objectives and selection criteria for individual demonstration projects. It also outlines a number of funding and governance options for the project portfolio and sets out the next steps to develop the detailed business case and delivery plan for the portfolio.



Portfolio aims

At least £100 million of public funding would be used to provide a cornerstone investment for a portfolio of 12–20 multi-year landscape-scale nature-based projects across the country, that would achieve the scale required to attract significant private investment.

The aims of the portfolio would be to:

- deliver immediate benefits to local communities by injecting funding into on-ground projects to support recovery from the health and economic crisis;
- show how private investment can deliver a step change in the rate of delivery of the Government's environmental targets;
- identify what Government needs to do to create the scale, certainty and long term incentives required for business to invest in nature-based solutions;
- develop the standards for accrediting and verifying the outputs of nature-based projects to facilitate market development;
- test different ways to blend public and private finance to inform the design of new public funding schemes that can effectively catalyse private investment.

Depending on the public funding model, the portfolio would aim to attract at least £100 million of additional private funding.

Public and private funding would be used to support demonstration projects of varying sizes across the country, including at least:

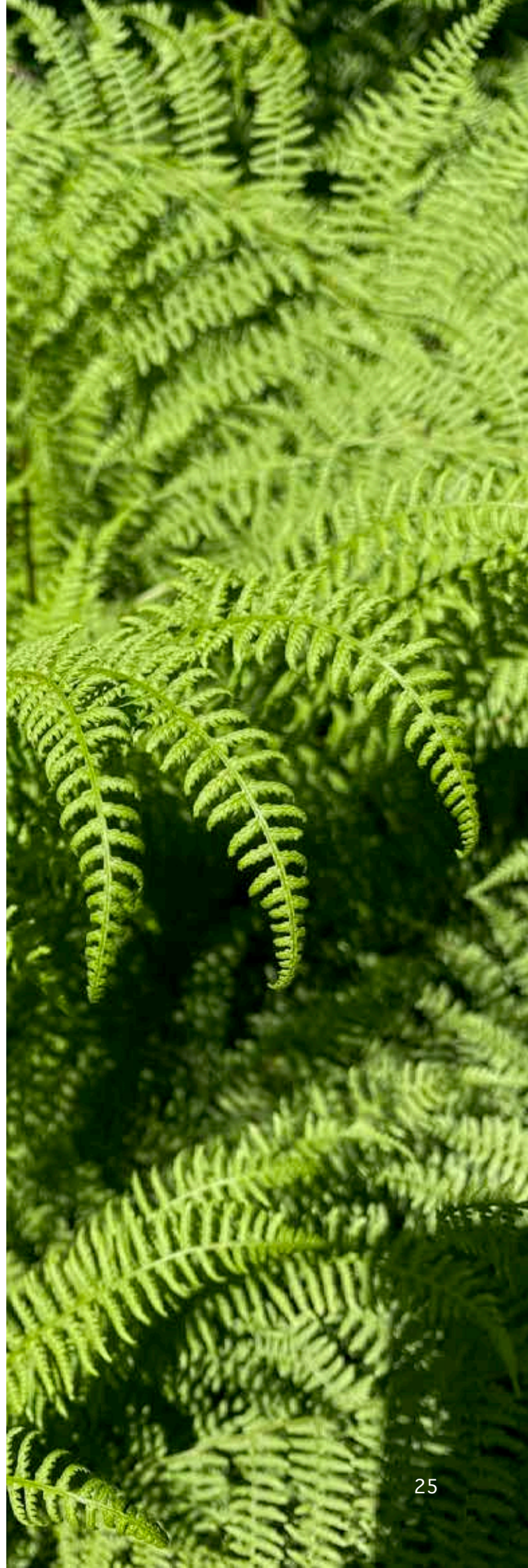
- 7 projects with a significant water company involvement; and
- 5 projects with a significant urban component.

Project objectives

The objectives of each demonstration project will be to scale up a proven delivery model(s), building on existing delivery partnerships between landowners, business and communities.

Each project will:

- demonstrate how to efficiently integrate the delivery of environmental services for climate change mitigation, water quality improvement, biodiversity net gain, and flood risk management at a landscape scale;
- invest in local economies, including creating jobs and providing new sources of revenue for farmers and land owners;
- reduce barriers to economic development, for example housing development.



Project selection

Landscape-scale projects could be proposed by private, public or community organisations that demonstrate a strong partnership between landowners, business and communities.

Projects would be selected on the basis of a balance of the following three criteria to ensure value for money and control risk:

- contributing to environmental outcomes;
- leveraging private investment; and
- informing policy development.

Criterion 1: Environmental outcomes

Environmental outcomes would be assessed on the basis of:

- environmental improvement;
- social and economic impact; and
- value for money.

Projects will need to set out the specific environmental outcomes that they achieve, in terms of measurable improvements in biodiversity, water quality, flood risk management and carbon sequestration.

Projects will show how revenue streams will contribute to on-going financial sustainability of local nature-based solutions, including by showing links with eNGOs and how the project will support local community engagement in on-ground delivery.

Projects that deliver wider social and economic benefits will demonstrate how they will contribute to local employment, improve access to nature and diversity revenue streams for farmers and landowners.

Projects will need to show how they will deliver better value for money compared to conventional delivery models. Value for money may be demonstrated through increased environmental outcomes and/or lower delivery cost.

Criterion 2: Private investment

The level of private investment would be assessed on the basis of:

- public:private funding ratio;
- expected risk-adjusted return; and
- project governance.

A minimum public:private funding ratio of 1:1 would be expected with a higher ratio expected depending on the public funding model adopted. The risk-adjusted return for the private investment would need to reflect the de-risking of the project provided by the public funding. Projects would need to demonstrate an effective project governance mechanism involving experienced personnel to engage stakeholders and manage the funding and delivery risk.

Criterion 3: Policy development

Projects would be selected that provide empirical evidence to inform one or more policy questions in relation to the financial sustainability of public investment in nature including:

- how to secure finance from carbon markets;
- the role of market mechanisms;
- facilitating local economic development;
- inform how the various mechanisms (eg local nature recovery strategies, ELMS and biodiversity net gain) can work together to secure multiple benefits from land.

Access to carbon market finance

Nature-based projects (such as woodland planting) delivered to a verified standard will generate significant lifetime carbon credits. Projects will be encouraged that demonstrate how to secure private finance from carbon markets to fund nature-based solutions beyond the duration of the public funding.

Role of market mechanisms

Every piece of land in the country is unique in terms of its value to a farmer or the land owner, and its potential to help address the environmental challenges in the catchment or region. Although spatial targeting can identify priority areas for potential investment in nature-based solutions, mapping and targeting public funding alone will not result in actual investment in these solutions. There is a need to identify where nature restoration is commercially viable. This requires a mechanism to discover the efficient price for environmental services across a catchment or region. Projects would be encouraged that demonstrate the role of markets in efficient price setting for nature-based projects and the environmental services they deliver.

Facilitating local economic development

Development approvals are increasingly subject to the need to deliver net environmental gains. Gaining access to relevant offsets can be costly and time consuming. Projects would be encouraged that demonstrate how to increase access to offsets to facilitate development approval.

Informing the framework for local delivery

The absence of outcome-based targets at a local level contributes to the current problems of prescriptive solutions and siloed delivery. Projects would be encouraged that can inform a new framework for integrated local delivery by demonstrating how to combine funding sources to maximise the environmental return on public and private investment across a catchment or region.

Funding the portfolio - public funding options

Funding the portfolio is based on leveraging public funding to attract private investment to scale up project development, aggregation and market development.

Public funding can help overcome the barriers to private investment in two main ways:

- by supporting the development and aggregation of nature-based projects to achieve a scale attractive to investors
- de-risking the projects by providing a cornerstone investment in the public goods delivered by the projects.

Project development and aggregation would be supported by bringing forward the £10 million of spending from the existing Natural Environment Impact Fund and funding for Tier 3 ELMS pilots.

The cornerstone investment required to establish the portfolio of demonstration projects could be provided through a number of options.

Option 1: New Fund for Nature-Based Solutions

Government would provide a cornerstone investment of a minimum of £100 million over five years in a new fund for nature-based solutions. The fund would:

- be designed from the start to achieve the goals of the 25-Year Environment Plan;
- be independently administered;
- invest in landscape scale nature-based solutions eg. at a catchment level;
- facilitate integrated delivery of action on climate change and nature recovery; and
- achieve a minimum ratio of private to public sector funding of 2:1.

This pooled funding approach would be attractive to institutional investors that are limited by minimum investment size and need liquidity to be able to obtain a return on their investment.

This option would also provide flexibility to allocate funding to projects on the basis of their overall value and contribution to the project portfolio.

Option 2: Existing Nature for Climate Funding

Government would set aside at least £100 million from the Nature for Climate Fund (N4C) and Nature Recovery Fund over five years. Funding would be for landscape-scale projects that: deliver integrated environmental outcomes, including carbon sequestration; and can secure significant private investment through the use of innovative delivery models.

The N4C funds would be:

- committed upfront to landscape projects that demonstrate that they are able to secure matching private investment;
- released on the basis of milestones for private investment being achieved; and
- deliver the Government's targets for nature-based carbon sequestration.

The lower return (1:1) reflects the reduced flexibility in the use of public funding compared to Option 1.

Option 3: Transition Approach

Under this option the Government would set aside a proportion of the £100 million funding required (eg £40 million), from the Nature for Climate Funding (Option 1) to kick start the project portfolio. This would provide the cornerstone investment for 3-4 shovel ready projects.

In parallel, the new fund for nature-based solutions (Option 2) would be established, with Government providing the remaining £60 million funding once the fund structure and governance is in place and key conditions for public investment have been met.

Option 4: Water Company Partnerships

Private investors are familiar with water companies and have confidence in their business models. Water companies already convene catchment environmental organisations to plan and deliver improvements, with £5 billion due to be invested over 2020-25 through the WINEP.

Under this option, water companies who demonstrate their capacity to build on existing successful projects would:

- administer the £100 million of cornerstone funding for project delivery on behalf of Government;
- work with the financial sector to raise the required levels of private finance;
- establish local delivery models in partnership with local businesses government authorities and the community, including eNGOs;
- coordinate delivery across their catchments.

Funding the portfolio - private funding options

Private investment would be financed by cash flows from the sale of environmental credits generated by the projects.

Experience to date shows that the businesses and institutions that will help fund the demonstration projects will depend on both the scale and structure of the investment opportunity.

There are three broad types of opportunity:

- Investment in the fund;
- Direct project funding; and
- Asset-backed finance.

There may also be opportunities for CSR investment in individual projects, and equity investment in proprietary delivery models.

Investment in the fund

The delivery models for nature-based solutions are proven, but are not (yet) generating projects at a scale that can directly attract institutional investors.

The fund for nature-based solutions (Option 1) is a pooled funding model that could help overcome this barrier.

Institutional investors could invest in the fund with the certainty of the cornerstone funding from Government. The fund would build expertise in nature-based solutions as an asset class, and avoid the complexity and cost of negotiating blended finance solutions for individual projects.

The fund could obtain private investment from institutional investors attracted to the reduced risk profile of the project portfolio, such as pension funds and insurance companies.

Project funding

Projects funded either by the nature-based solutions fund, or underpinned by Carbon for Nature funding (Option 2), could also attract direct investment from businesses that need to meet supply standards or want to de-risk their supply chain.

Businesses have shown interest in investing in nature-based solutions that deliver products and services that help meet environmental standards required by customers. Examples include airline offsets and sustainably produced food.

Businesses are also investing in projects that reduce their supply chain risk. Examples include agribusinesses, food and other manufacturers.

Asset-backed finance

Where project proponents have entered into agreements to sell the environmental credits from a project, these environmental credit purchase agreements can provide asset backing to raise finance.

Businesses such as water companies and residential developers required to meet a range of public environmental commitments and compliance obligations would be expected to take the opportunity to enter into such agreements.

Environmental credit markets are currently limited, but demand for high-quality, certified environmental credits is expected to grow significantly over the next decade, driven by obligations and commitments to net zero [4] and net environmental gain.

Projects will demonstrate how private investment can help build efficient and liquid environmental credits markets. The experience gained through these projects will provide investors with further opportunities in later stages as markets scale up to meet the expected demand.

Once there is sufficient liquidity, there will also be investment opportunities in secondary markets for these environmental credits.

[4] UN Race to Zero Campaign, 5 June 2020 <https://unfccc.int/news/cities-regions-and-businesses-race-to-zero-emissions>

Portfolio governance

The governance model for the portfolio of demonstration projects will depend on the funding option adopted. However, key elements of a governance model would include:

- applying market discipline;
- ensuring value for money;
- managing delivery risk; and
- sharing lessons learned.

Market discipline

Market discipline would underpin the governance of the demonstration projects.

Under the pooled finance model (Option 1) governance would rest with the fund itself. The fund would have its own legal structure and Board, which would include independent directors as well as representatives from the Government and other major investors.

The fund would blend the public and private finance, and build the project portfolio in accordance with the required rate(s) of return and environmental outcomes. Project evaluation, based on a business case and financial model submitted by project proponents, would be undertaken by the fund drawing on independent expert advice.

Although not necessarily specific to the environment or nature-based solutions, there are a range of UK and international models that could inform the fund governance, for example:

- Enterprise Capital Funds (ECFs) from the British Business Bank [5];
- &Green, a Nordic blended finance fund [6];
- Australian Renewable Energy Agency (ARENA) [7].

The Green Finance Institute would be a good source of advice on fund governance.

Value for money

Government will need to be confident that its investment is delivering value for money across the three main outcomes of the demonstration projects:

- delivery of environmental outcomes;
- attraction of private investment;
- informing policy development.

The onus to provide assurance around environmental outcomes will rest with project proponents drawing on advice from the Government's environmental advisors and regulators, including Natural England and the Environment Agency.

Under Option 1, private investment would need to be committed up front. Projects that do not achieve the required rate(s) of return would not be funded.

Under Options 2-4 the Government's cornerstone investment would be committed upfront and project proponents would be given a fixed amount of time to secure the required level of private investment.

Government representation on the fund Board or internal approval processes would be used to evaluate the contribution of proposed projects to policy development.

[5] <https://www.british-business-bank.co.uk/ourpartners/enterprise-capital-funds/>

[6] <https://www.andgreen.fund/>

[7] <https://arena.gov.au/funding/>

Delivery risk

Simply because a fund is established, or cornerstone investments are committed does not ensure that projects will proceed. However, the pipeline of projects would be developed over the first three years, providing the opportunity for a thorough assessment of delivery risk.

This Proposal is based on the proposition that public funding for the portfolio will de-risk the initial private investment, helping to establish sustainable financing for nature-based solutions into the future.

The Proposal draws on commitments made by regulators to work strategically and collaboratively to support innovation and demonstration projects, using the flexibility available within the existing regulatory framework.

The demonstration projects will also inform the ongoing regulatory reforms that are needed to increase delivery efficiency and strengthen confidence in the revenues from nature-based solutions. Examples of such reforms include: catchment-based permitting; and accrediting the full range of environmental services delivered by nature-based solutions such as water quality improvement.

The Proposal is also predicated on the rights (and revenues) from all credits from environmental services, including carbon, nutrient pollution reduction and biodiversity being retained by the projects. In other words, environmental credits will not be expected to be surrendered as a condition of cornerstone funding.

Option 3 is particularly well suited to managing delivery risk as it stages the Government's funding commitments. The second tranche of funding could be tied to the performance of the initial suite of demonstration projects, which would undergo independent evaluation.

Lessons Learned

A major additional benefit of the demonstration projects would be the value of the shared insights about how to overcome existing barriers to private sector investment and sustainably fund nature-based solutions into the future. These lessons learned would be enhanced if pilots such as ELMS and local nature recovery strategies were incorporated within the demonstration projects.

The knowledge gained would feed into the design of ELMS, Environment Bill mechanisms and the successor to the current WINEP. As an example, the demonstration projects would inform the degree to which the ELMS can be a purchaser of last resort where private markets for the environmental outcomes do not exist, and help map out a transition pathway to such an approach.

A dedicated function, that can draw on the expertise of Government, business, finance and other stakeholders, will need to be established to capture and share lessons learned in order to remove the barriers to private investment in the future.

It would be a condition of funding (under all models) that project insights are shared, including commercial outcomes. Commercially-sensitive information and intellectual property in individual projects would be protected through independent analysis.

The green finance team in Defra, the Green Finance Institute and the Broadway Initiative could help fulfil this function.

Next steps

Subject to a signal from Government that it wishes, in principle, to pursue this approach, the next step would be to bring the finance and business sector together with Government and third-party delivery organisations to develop the detailed business case and delivery plan for the portfolio.

Government signal

A clear Government signal that it wants a strong focus on catalysing private investment in nature-based solutions is needed to mobilise business and the finance sector expertise and inform the design and evaluation of the funding options.

The signal should include an indicative amount of public funding, the timeframe for delivery and could include an announcement of cornerstone funding for shovel-ready projects.

An early signal from Government is critical to enable timely project delivery.

Business and finance sector involvement

Modelling has already commenced to assess the potential outcomes from the proposal. Business and finance sector involvement in the development of the modelling will help ensure commercial expectations can be met.

The Green Finance Institute is well placed to:

- convene the necessary private sector expertise;
- inform the development of modelling scenarios;
- understand financing needs and how they can be met; and
- develop options for the structure and governance of the funding.

Modelling could be completed by the end of September 2020.

Implementation

Once the modelling and evaluation of the funding options has been completed, the Government will be in a position to announce the funding and delivery model.

An implementation plan would need to accompany the delivery model, including establishing the:

- legal structure and governance mechanism;
- monitoring and evaluation framework; and
- evaluation process for project proposals.

Ideally, the implementation plan would be completed by the end of 2020, with an announcement and call for project proposals in early 2021.

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