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Final Report for the Forestry Commission
June 2024

Buyers of Ecosystem Services in Voluntary Markets

Foreword

The Nature Returns (aka Nature-based solutions for climate change at the landscape scale) Programme was developed to meet the strategic need to pilot and build the evidence base for nature-based solutions for climate change mitigation. Nature Returns is a £17.5 million programme first established in 2021 which is funded by the Treasury's Shared Outcomes Fund, co-sponsored by Defra, and the Department for Energy Security and Net Zero (DESNZ). The fund seeks to increase cross-government collaboration and address society's most challenging problems including biodiversity loss, climate change and land use change.

Nature Returns is funding the delivery of six landscape partnership projects, spread across England from Northumberland to Plymouth, focusing on habitat creation and, to enable the effectiveness of these habitats to sequester carbon to be monitored. Alongside this, we are working with the partnership projects to develop and/ or support collaborative engagement approaches for land use change, and to develop financial plans for revenue generation for maintenance and further restoration via innovative funding.

This report has been commissioned through the Nature Returns Programme with the aim of developing a better understanding of how the demand side of voluntary nature markets is currently operating, specifically to better understand:

1. The current voluntary market demand for 'emerging' ecosystem services, such as water quality, natural flood management, and biodiversity.
2. Market participants' perceptions of nature markets, and views on how these markets may develop in the future.
3. Current and future barriers and enablers for the operation and growth of nature markets.
4. How buyers prefer to engage in these markets, the importance of high integrity, and the outputs/outcomes they want to see.

The findings from this research will be used to inform government policy, support Nature Returns local project partners in informing green finance strategies, and identify evidence gaps.

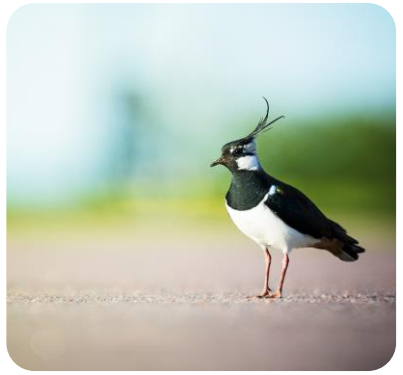
Foreword (cont.)

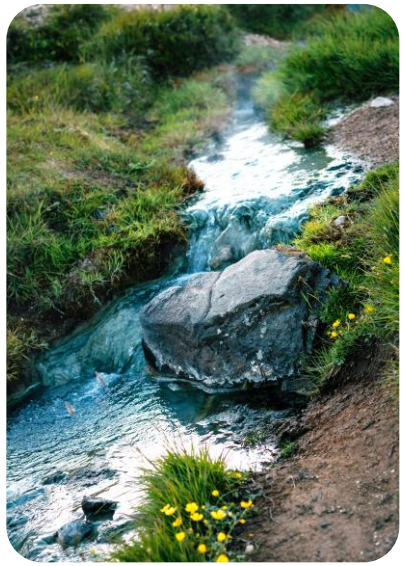
Disclaimer:

The Forestry Commission commissions a range of reports from external contractors to provide evidence and advice to assist us in delivering our duties. The views in this report are those of the authors and do not necessarily represent those of the Forestry Commission.

The Structure of this Report

1. Executive summary
2. Glossary of key terms
3. Project overview:
    i. Projects aims
    ii. Research themes
    iii. Research questions
    iv. Approach
4. Findings organised by research theme
5. Discussion and conclusion
6. Recommendations





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1

Executive Summary

Executive Summary

Beyond carbon, voluntary markets remain nascent
At present, nature markets are almost exclusively focused on voluntary carbon, mandatory BNG and nutrient neutrality - where clear metrics and regulatory drivers are in place. Trades in other voluntary markets are limited.

Buyers in voluntary markets are motivated primarily by business outcomes and reputational drivers
These drivers include enhancing reputation with shareholders and customers or responding to their needs, responding to or pre-empting anticipated regulation, delivering cost savings (e.g. from reduced flood damage) and risk management. However, these drivers are not currently sufficient to achieve the desired scale of private finance to meet the Government's environmental targets.

There are challenges and barriers preventing buyers from purchasing ecosystem services
Key challenges relate to policy and market uncertainty, internal company factors such as understanding the benefits of ecosystem services, uncertainty and limits around measuring outcomes and project factors e.g. lack of scale and limited understanding of legal agreements.

A clear, strong and decisive direction on nature markets is needed from Government
Clear rules and regulation could increase buyer confidence, including around stacking and bundling and help introduce market infrastructure, such as central registries of projects seeking funding, with prices and case studies of successful trades/purchases - to increase transparency and promote learning.

2

Glossary

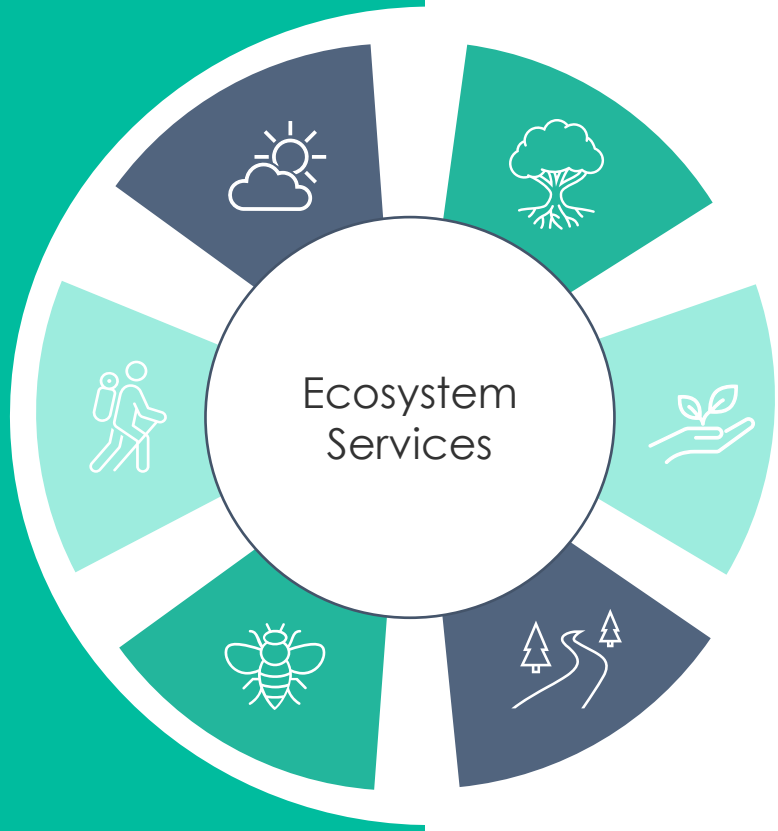
Glossary of Key Terms

Accreditation	For more formal environmental standards, this is the process that must be followed for a nature-based project to formally verify that its environmental credits have been created.
Ecosystem services	The benefits that people obtain directly or indirectly from nature. These are typically divided into provisioning services (food, water, wood), regulating services (flood regulation, water and air purification), cultural services (recreational, spiritual and educational services) and supporting services (nutrient cycling, maintenance of genetic diversity).
Environmental Credit	A measure of the degree of change in ecosystem services created by a nature-based project. Common examples include carbon credits (equivalent to avoiding the emission of one tonne of carbon dioxide) and BNG units (a measure of the change in biodiversity value). Any measure of change in an ecosystem service could be treated as a credit, e.g., kgs of pollutant prevented from entering a river or volume of water stored to reduce flood risk.
Material Risk Market	Markets based on buyers purchasing ecosystem services to reduce supply chain risks and financial losses.
Nature-based Solutions (NbS)	Using natural (as opposed to man-made) techniques to either prevent, mitigate or adapt to the effects of climate change or other challenges such as biodiversity loss and food security.
Taskforce for Nature-related Financial Disclosures (TNFD)	A voluntary reporting framework aimed at businesses, investors and financial institutions. The TNFD was launched in 2021 in response to calls from businesses for a clear and consistent biodiversity assessment and reporting framework. It includes a set of disclosure recommendations and guidance for assessing and reporting on nature-related risks and impacts.

Glossary of Key Nature Markets

Carbon

A carbon credit is a generic term for any tradable certificate or permit that represents either the permanent removal of a tonne of carbon dioxide equivalent (CO_2e) from the atmosphere, or the avoidance of one tonne of CO_2e being emitted. **Carbon offsetting** is the practice of purchasing emission reductions or removal enhancements which occur outside of an entity's greenhouse gas (GHG) inventory boundary, in order to compensate for emissions occurring within the entity's GHG inventory boundary. **Regulated accreditation standards** provide formal project verification processes which require payment to an accreditation body throughout the project lifetime. **Carbon Plus** is a concept whereby carbon is measured against a variety of standards (including methods from regulated standards and more experimental ones) with its value is often associated with a greater focus on local biodiversity and wider environmental and social benefits e.g. Wilder Carbon.



Water

Payments for improvements in **water quality**, usually targeted upstream of areas of high environmental value e.g. bathing waters, water-based Sites of Special Scientific Interest (SSSIs) or drinking water sources. The insurance market is becoming interested in **natural flood management (NFM)** schemes that reduce the overall flood risk of insured businesses in an area.

Biodiversity and Nature

Statutory biodiversity net gain (BNG) requires developers to pay for biodiversity improvements offsite in order to mitigate biodiversity loss which cannot be avoided due to development, such that an overall increase in natural habitat and ecological features is achieved. BNG is legally mandated at 10% as calculated by the Defra Biodiversity Metric. **The voluntary biodiversity market** involves nature positive initiatives which generally demonstrate alignment with a company brand or locality. Initiatives in the voluntary market include the Taskforce on Nature-related Financial Disclosures (TNFD) and emerging nature-focused codes and certifications such as CreditNature and Verra's Nature Credit. Investing in nature can also create opportunities for ecotourism or local produce branding.

Nutrient Neutrality

A requirement to ensure that new developments do not add to existing nutrient burdens within catchments. In particular, in many parts of England, housing developers must demonstrate nutrient neutrality for their new proposals, before planning permission is granted. Land managers can create and sell nutrient credits to developers by reducing or capturing nutrients which would otherwise end up in protected bodies of water.

3

Project Overview

Project Overview

This project sought to research and explore buyer motivations, incentives, and barriers when purchasing products or goods in **voluntary nature markets**.

The research placed particular focus on the motivations of **buyers** (those who pay for the ecosystem services), rather than investors (those providing up-front capital in search of a financial return).

Emerging ecosystem services were also of particular interest, for instance water quality, natural flood management, and biodiversity, as opposed to carbon, where motivations are better understood.

Project Aims

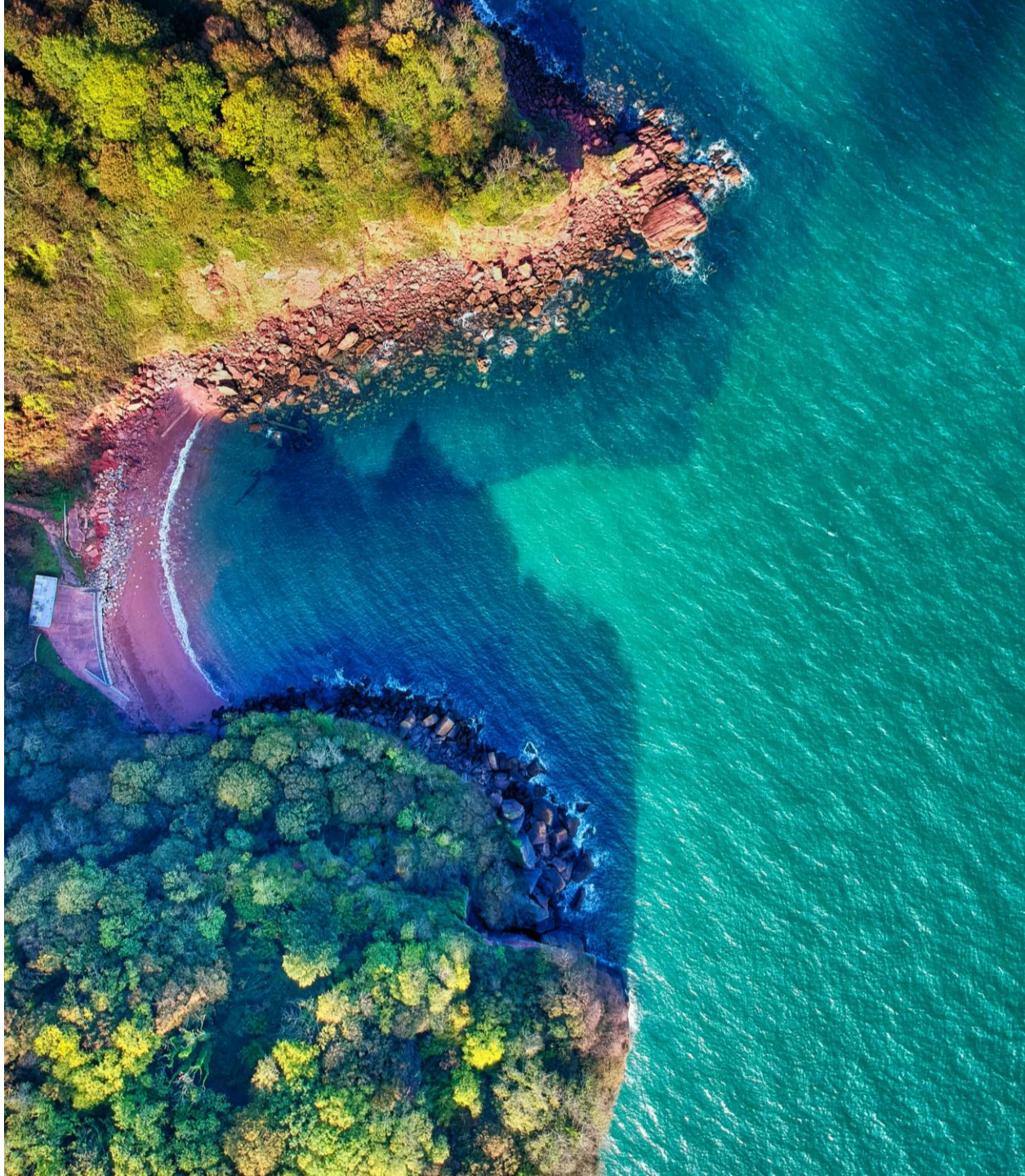
The ultimate aims of the project were:

1. Build internal knowledge within the Forestry Commission and within the broader nature finance sector.

2. Provide an evidence base to support the Nature Returns local partnership projects to find buyers and best market their ecosystem service offerings to attract buyers.

3. Support the development of new nature markets and standards.

4. Identify evidence gaps and recommend how to overcome these.



Research Themes

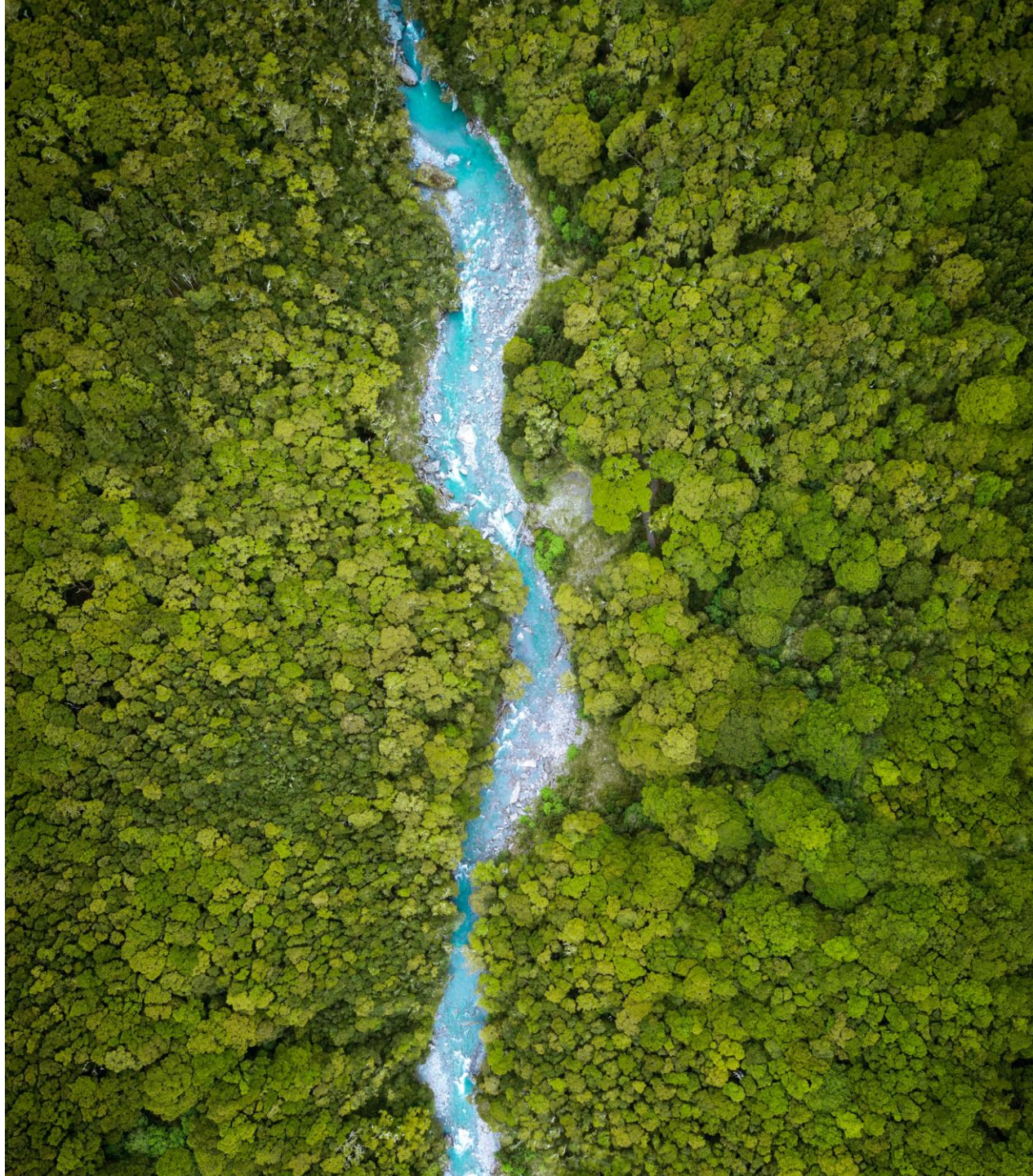
The research is structured around four key themes:

A. **Ecosystem service demand**: What is the demand for ecosystem services, and who is purchasing them?

B. **Buyer interests**: What drives buyers to purchase ecosystem services?

C. **Buyer preferences**: What makes a particular product more attractive to buyers?

D. **Buyer constraints**: What is holding back further investment in nature by buyers?



Research Questions

To examine each of these themes, a series of specific research questions were developed. These are listed in the following slides.

A. Ecosystem service demand: What is the demand for ecosystem services, and who is purchasing them?

B. Buyer interests: What drives buyers to purchase ecosystem services?

C. Buyer preferences: What makes a particular product more attractive to buyers?

D. Buyer constraints: What is holding back further investment in nature by buyers?

A1. What ecosystem services are already being bought?

A2. For which ecosystem services is demand highest?

A3. Does this vary by sector/industry?

A4. Who makes the decisions on which ecosystem services or projects are bought and what budget is available for buying them?

A5. How do buyers find nature projects and interact with suppliers?

A6. How do buyers envisage the market developing in the coming years?

Research Questions

A. Ecosystem service demand: What is the demand for ecosystem services, and who is purchasing them?

B. Buyer interests: What drives buyers to purchase ecosystem services?

C. Buyer preferences: What makes a particular product more attractive to buyers?

D. Buyer constraints: What is holding back further investment in nature by buyers?

B1. What are the main motivations for purchasing ecosystem services, and how strongly does each motivation rank?

B2. What are buyers' perceptions of the Taskforce for Nature-Related Financial Disclosures (TNFD) and the Science Based Targets Network (SBTN)? Are the metrics useful and align with internal processes?

B3. What are buyers' views on other Nature Positive initiatives (e.g. Get Nature Positive or Now for Nature)?

Research Questions

A. Ecosystem service demand: What is the demand for ecosystem services, and who is purchasing them?

B. Buyer interests: What drives buyers to purchase ecosystem services?

C. Buyer preferences: What makes a particular product more attractive to buyers?

D. Buyer constraints: What is holding back further investment in nature by buyers?

C1. How interested are buyers in high-integrity products/projects? Is there a price premium for them? What aspects of high-integrity are most important to buyers?

C2. How interested are buyers in products/projects that provide multiple benefits? Is there a price premium for them?

C3. How interested are buyers in projects already delivering benefits (ex-post) as opposed to those planned for the future (ex-ante)? Is there a price premium for them?

C4. What differentiates the individual carbon codes to buyers, which are most attractive, and why? Do any attract a price premium relative to the others?

C5. How important is it to buyers to purchase a quantified (and assured to a published methodology) unit/credit of ecosystem services as opposed to the claim over qualitative outcomes?

C6. What is buyers' understanding of the importance of:
- accreditation;
- whether ecosystem service products align with international standards (e.g. Voluntary Carbon Markets Initiative - VCMI / International Carbon Reduction and Offset Alliance - ICROA); and
- government recognition of high integrity units/outcomes?

C7. (Following on from C6) What does achieving these standards mean for their business?

C8. How important is it for the unit/credit to be verified by a third party and/or to have a strong credit risk rating?

C9. What are other factors that influence buyer decision-making?

Research Questions

A. Ecosystem service demand: What is the demand for ecosystem services, and who is purchasing them?

B. Buyer interests: What drives buyers to purchase ecosystem services?

C. Buyer preferences: What makes a particular product more attractive to buyers?

D. Buyer constraints: What is holding back further investment in nature by buyers?

D1. What are the main barriers and constraints to purchasing ecosystem services?

D2. How do buyers perceive risks associated with their purchases if they are delivered over time? E.g. if the project is not fulfilled.

D3. How do your organisation's policies and processes (e.g. procurement) impact buyers' ability to gain approval to purchase ecosystem services?

D4. What factors would increase buyer incentives or confidence in purchasing ecosystem services?

D5: Which areas (or lack) of Government policy impact buyers' willingness to purchase ecosystem services?

Approach: Overview

The research followed a five-stage methodology and was conducted from November 2023 to March 2024.

Task 1

Project Inception & Scoping

Project inception involved a meeting to ensure clarity of the work outlined, refine the methodology, timeline, deliverables and preferred communication styles.

Task 2

Literature Review

The literature review included research on buyer appetite, motivations, preferences and barriers to engaging with nature markets.

Task 3

Buyer Interviews

Seventeen interviews were conducted with various stakeholders across different sectors which were agreed with both the Forestry Commission and Environment Agency.

Task 4

Analysis

Organised by research question, insights from the literature review and buyer interviews were analysed for key findings.

Task 5

Reporting

This report presents the findings from the project. A condensed version was presented in April to a wider audience.

Approach: Literature Review

The literature review used principles from Rapid Evidence Assessments and Quick Scoping Reviews to ensure that a systematic approach was taken. The following steps were taken:

1. Evidence sources to review were agreed with the Forestry Commission and Environment Agency. Sources included wider literature supplemented with insight from research previously delivered by Eunomia for Natural England, the Tamar Valley Area of Outstanding Natural Beauty (TVAONB), Shropshire Wildlife Trust, Welsh Government and the Environment Agency.
2. The reviewed documents were recorded and insights were mapped against the research questions.

Key wider literature

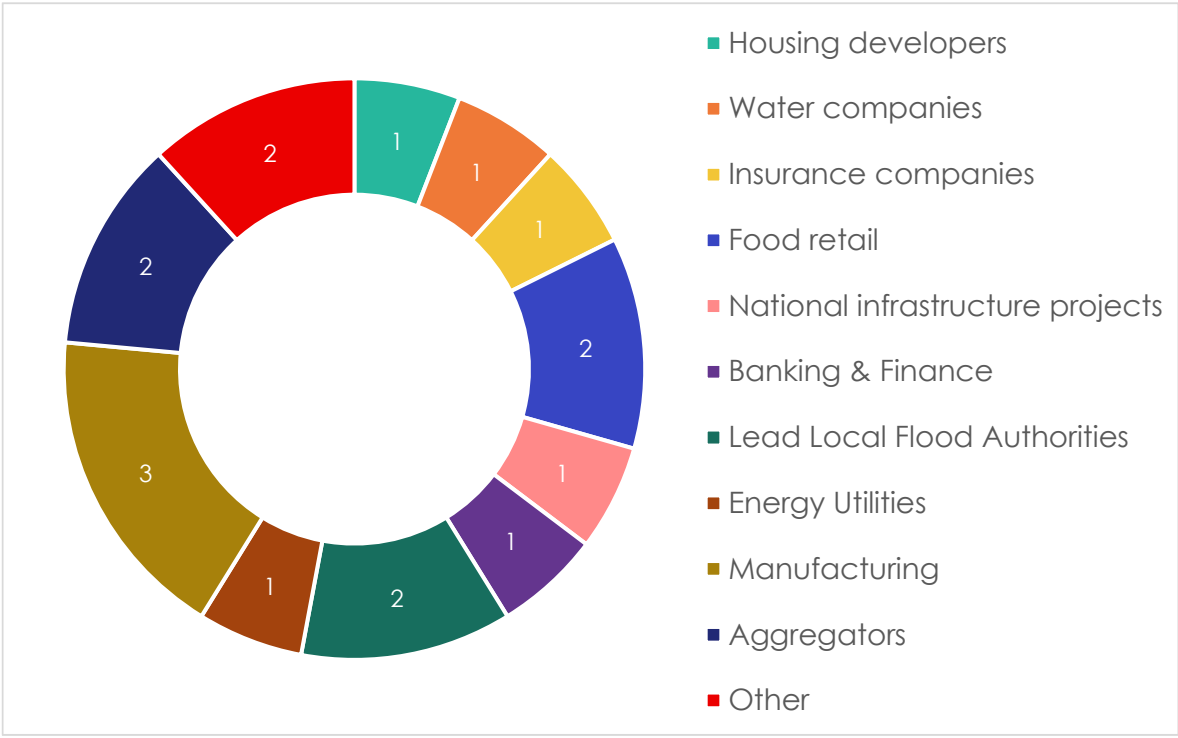
- Ecosystems Knowledge Network. Nature Finance Review 2023: https://ecosystemsknowledge.net/resources/nature-finance/nature-finance-review-2023/
- Nature North. Finding the Buyers. https://www.naturenorth.org.uk/
- Broadway Institute. State of UK Nature Markets 2023: https://irp.cdn-website.com/ba38e7c3/files/uploaded/State%20of%20UK%20Nature%20Markets%20October%202023%20website%20updated.pdf
- Green Finance Institute. Investment Readiness Toolkit: https://www.greenfinanceinstitute.com/gfihive/toolkit/
- Wilder Carbon: https://www.wildercarbon.com/publications/
- NERC Nature Positive Programme: https://gotw.nerc.ac.uk/list_them.asp?them=Nature+Positive

Approach: Stakeholder Engagement

17 interviews were held with stakeholders from 11 sectors. The engagement process involved the following steps:

1. The sectors to engage were agreed with the Forestry Commission and Environment Agency.
2. Organisations were shortlisted according to those demonstrating interest in nature finance, e.g. having a published environmental commitment or strategy.
3. 60 organisations were approached. Although this sample is unlikely to be representative of all buyers, it captures a good selection of those known to be more engaged with nature markets.
4. A semi-structured interview script was developed in line with the research questions and tailored to each type of organisation.
5. Interviews were conducted online, recorded in Excel and analysed against the research questions to identify common themes and differences.

Figure 1. Number of Interviewees by Sector



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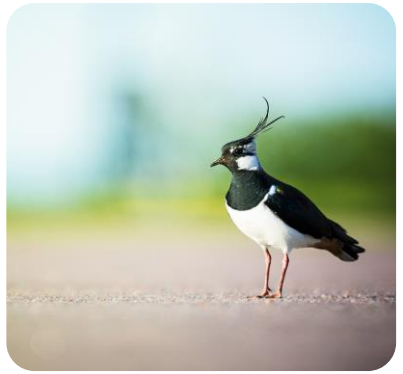
Findings

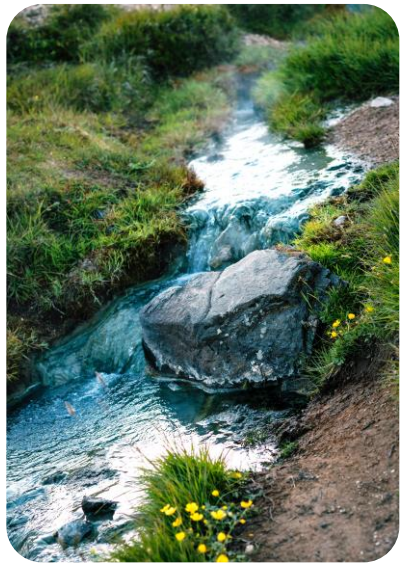
Research Theme A: Ecosystem Service Demand – Summary of Findings

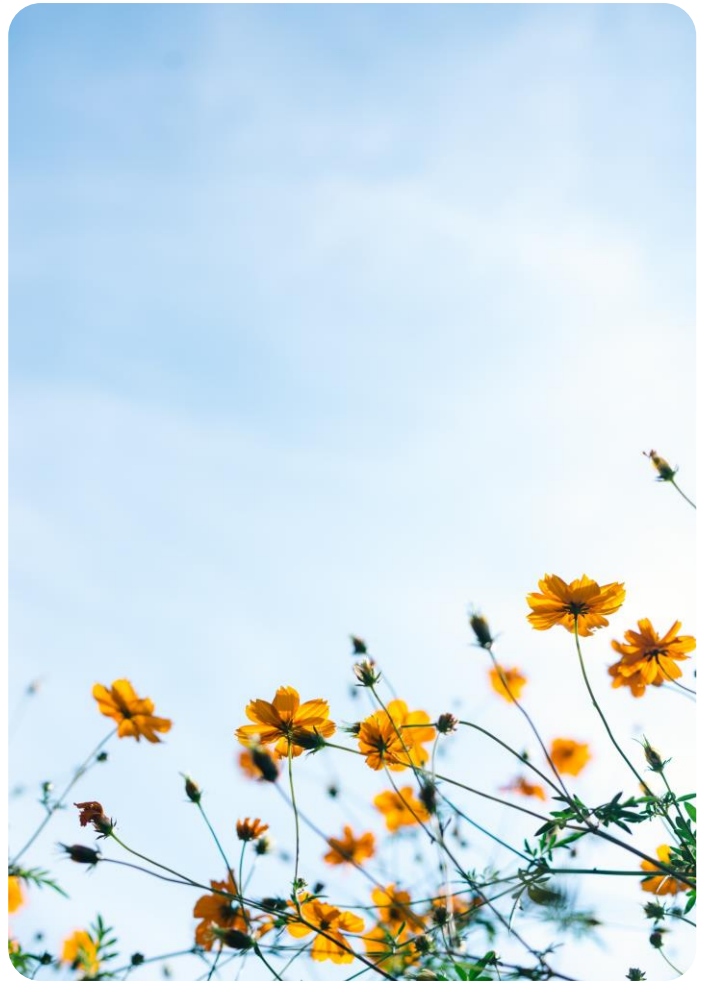
This slide summarises key themes emerging from the literature and stakeholder engagement examining the current demand for ecosystem services i.e., who is purchasing what and how, and the future of nature markets. The slides that follow provide detailed responses to each of the six research questions. Wider cross-cutting reflections from the project team are provided at the end of this section.

Key themes from the literature and stakeholder engagement:

1. At present, nature markets* are almost exclusively focused on mandatory BNG and nutrient neutrality, and voluntary carbon.
2. Although there is limited data on demand for ecosystem services, this and views from stakeholders suggest BNG and carbon are in most demand currently.
3. Demand for ecosystem services is more dependent on the pressures, motivations and drivers which influence individual organisations, than industry sector.
4. Decisions about purchasing ecosystem services are typically made through formal processes and at a senior level.
5. Buyers find and interact with suppliers in varying ways, including directly and via third parties. These interactions vary according to buyer preferences, needs and experience.
6. There was general consensus from stakeholders that nature markets will grow in the future, particularly if finance companies/investors and large companies move first to stimulate the market/demonstrate benefits.







** Key nature markets are summarised in slide 9*

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A1. What ecosystem services are already being bought?

At present, nature markets are almost exclusively focused on mandatory BNG and nutrient neutrality, and voluntary carbon. Based on the stakeholders interviewed, there is a wide range of engagement with these markets; some organisations have made significant investments while others have not purchased any ecosystem services.

Literature Review Findings

- Carbon units/credits are often explicitly bundled with other ecosystem services, as with the case of the Woodland Carbon Code, Peatland Code and Wilder Carbon. This approach enhances the voluntary carbon price and treats other ecosystem services as additional or 'bonus' outcomes.
- Ecosystem services beyond carbon, biodiversity and water pollution reduction are rarely the primary focus of trades, other than in limited, trial projects.
- Markets based on buyers purchasing ecosystem services to reduce supply chain risks, often referred to as 'Material Risk Markets' work slightly differently. For instance, Landscape Enterprise Networks (LENS) manage payments for outcomes resulting from sustainable agriculture practices. These typically cover a bundle of ecosystem service outcomes that are associated with more resilient agricultural supply chains such as water availability, soil, pollination and flood risk reduction.

Stakeholder Engagement Findings

- Those organisations which are engaging with nature markets are doing so in the following ways:
  - A utility company interviewee described engaging with 'credit-based work', including BNG and carbon.
  - An insurance company interviewee referred to £87 million already allocated on nature-based projects, largely carbon removals/carbon+.
  - A food retail interviewee noted that the company has been purchasing carbon offsets since 2019 and is looking to transition to carbon removal rather than avoidance/reduction units (i.e. through projects that actively remove carbon as opposed to preventing the emission), using the global market so far. They are now looking more locally.
  - An intermediary platform noted that BNG trades have already been happening and that there has also been demand for nutrient neutrality in certain regions.
  - One of the water companies and transport utility is engaged with the NFM market and is investigating carbon and biodiversity.

A1. What ecosystem services are already being bought?

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Stakeholder Engagement Findings (continued)

- Those organisations which are not buying ecosystem services are delivering environmental outcomes in different ways:
    - A housing developer interviewee explained that the company is achieving its nature goals on-site, and currently does not need to purchase any credits/offsets, although they are open to this in future. This was also the case for an infrastructure company.
    - A food retailer interviewee noted that the company is only funding nature projects which address the impact of their supply chains and is directed at trusted organisations, typically charities with an environmental focus that have been working in a particular region for some time and fully understand the issues e.g. the Wye and Usk Foundation. The company is not planning to buy or invest in ecosystem services in the future.
    - The broker platform interviewed has not processed any trades yet. They are however working with Scottish Government to create a nature market space in Scotland and currently have a pre-commercial agreement. The aim is to enter a commercial agreement and become the 'standard' for nature credits from nature restoration projects in Scotland.

A2 & 3. Which ecosystem services are in highest demand and does this vary by sector?

In general, the evidence for ecosystem service demand is limited. From the data available and stakeholder engagement, BNG and carbon show the highest demand. Demand varies according to the type of buyer and their motivations/needs.

Literature Review Findings

- There are limited data which show demand for ecosystem services. From this review, the following statistics were found:
  - Nature North research from 2023 found carbon to be the most commonplace and developed topic within the corporate sustainability actions of companies, with 62% referencing it in their strategies and plans. This figure is 38% for BNG and 17% for Nutrient Neutrality Figures were not provided for non-compliance markets (other than carbon).
  - 2,181 projects are registered with the Woodland Carbon Code (30.6.24).
  - 267 projects are registered with Peatland Code (2.7.24).
  - Research by Oxford University and Oxfordshire Local Nature Partnership estimated the size of the BNG market in Oxfordshire to be £19million per annum (assuming 16% of all units are offsite, at a cost of £25k per unit and using expected housing numbers from Local Plans).
- According to the Green Finance Institute, real demand will only exist for ecosystem services for which an uplift can be credibly claimed and assigned a value. Some ecosystem services are currently not accurately quantifiable, and as the benefits are dispersed, no one beneficiary has the incentive to pay the full cost of the project.
- In the case of LENS, businesses are purchasing positive outcomes relating to their material nature-related risks and dependencies. Trading volumes are reported to be doubling annually and were in the region of €10million in 2023 across all LENS operational regions.

Stakeholder Engagement Findings

- BNG and carbon emerged as the most common ecosystem services discussed/referenced during the interviews. Indeed, one interviewee from an investment company described voluntary carbon and mandatory BNG as the most advanced markets (i.e. those where there are clear demand-side drivers, codes and standards), with nutrient neutrality following.
- For instance, a water company interviewee highlighted interest in BNG and carbon, while an insurance company interviewee reported procurement of £87million worth of carbon+ projects.
- Phosphate and nitrate mitigation/offsets and nutrient neutrality were referenced by two interviewees from the housing and water sectors.
- Natural flood management was discussed by one interviewee from an infrastructure company.
- A local authority interviewee noted that a woodland water code pilot is of interest to the council.

A2 & 3.

Which ecosystem services are in highest demand and does this vary by sector?

Demand for ecosystem services varies less by sector and more according to the pressures, motivations and drivers which influence individual organisations. Although some factors, notably regulation, affect some sectors more than others.

Literature Review Findings (continued)

- Research conducted by Nature North in 2023 into buyer motivations found that BNG, nutrient neutrality and carbon were all of high interest for the construction sector.
- Material risk markets are particularly attractive to those with a dependency on a particular landscape, mostly food producers or utility firms (LENS).
- At present, insurance companies primarily invest in natural flood management projects for ESG/CSR reasons, rather than purchasing an outcome to reduce operating risk (e.g., Aviva Rainforests, RSA in Gloucester/Cheltenham). The business case is currently weak for such interventions, as demonstrated by limited involvement of insurance companies in the Wyre project. In this case, the reduction in direct risk to properties the companies insured was neither sufficiently evidenced nor financially attractive.

Stakeholder Engagement Findings (continued)

- All sectors expressed interest in carbon.
- Interviewees from the construction/infrastructure and housing sectors were largely interested in BNG, although NFM was also mentioned.
- The water company interviewees had varied interests, including NFM, carbon, biodiversity and nutrient offsets.
- The two food retailers interviewed supported ecosystem services in different ways, suggesting multiple motivations are in play.
  - One company is not currently purchasing ecosystem services but is funding environmental projects where their supply chains have the biggest impact, such as working with WWF Spain to deliver ecosystem restoration in water stressed areas of southern Spain, or with the Wye and Usk Foundation to reduce nutrient pollution in the River Wye.
  - The second company is specifically interested in carbon sequestration and has been purchasing international carbon offsets since 2019, due to a lack of UK-based carbon offsets.
- A local authority interviewee felt that demand varied across companies, noting that some look for quick turn- around projects, accreditation, high integrity or outcomes which can be publicised.

A4. Who makes the decisions on what budget is available for buying ecosystem services or projects?

From the few interviewees already actively engaged in nature markets, decisions about purchasing ecosystem services are typically made through formal processes and at a senior level.

Stakeholder Engagement Findings

- For those organisations actively engaged with nature markets, decisions about purchasing ecosystem services were made through formal processes and with senior level oversight.
- For example, a food retailer interviewee reported that these decisions are made through country-level financial planning, with approval by a national management team. The company is also considering a move to an internal carbon price, where each department has to purchase its own carbon to offset its own emissions.
- In comparison, a water company interviewee described two elements to the process- an internal budget and a business plan which is then approved. For nutrient neutrality for instance, the team has to prove cost efficiency of a nature-based scheme compared to grey infrastructure. A second water company noted that they invested in a nature-based intervention not from a cost perspective, but for the additional benefits the project delivered and from a desire to develop their market knowledge.
- An insurance company interviewee explained that the company has a 2% levy on profits which is put towards CSR type projects. This is agreed at the highest level (board/CEO).
- In very large organisations, it was noted by a utility company interviewee that different departments tend to do things differently and develop their own projects, rather than collaboratively across the company.
- Organisations which work with large public sector contracts, or which are subject to price controls set by an economic regulator (i.e., the private utilities) were only able to justify spending on voluntary ecosystem services to the extent that a pot of money had been agreed in their contract/price review settlement.
- Some interviewees reported that the Government's Environmental Improvement Plan was making regulators more accepting of companies pursuing this expenditure.
- The utility companies themselves were leading the way by actively consulting their customers – and receiving positive feedback in support.

No findings from the literature were relevant to this Research Question

A5. How do buyers find nature markets and interact with suppliers?

Buyers find and interact with suppliers in varying ways according to their preferences, needs and experience. Marketplace/broker platforms are useful for more simple markets and for buyers who want a hands-off approach. For trades which are spatially specific or where a relationship is already built, buyers and suppliers may directly engage with each other.

Literature Review Findings

- Wider Eunomia research indicates that how buyers find and interact with suppliers varies according to the preferences of the buyer. Some buyers want to access environmental credits quickly and easily in a hands-off approach (e.g., through an intermediary/broker) while others want to be more involved and build relationships with those delivering the project.
- From previous Eunomia projects, buyers generally prefer to use trusted organisations as a third-party intermediary/broker and potential aggregator rather than direct engagement with the seller. Where 1:1 arrangements are preferred, this may be due to familiarity and flexibility to support landowners within a specific location.
- The Green Finance Institute suggests that, as many businesses will not have engaged with these markets before, they are likely to use brokers and third-party intermediaries.

Stakeholder Engagement Findings

- Methods for finding and interacting with ecosystem service suppliers varied across interviewees, including:
    - A request for proposal/tender process for nature-based carbon offsets/sequestration projects (insurer and food retailer);
    - Knowledge of companies, existing relationships and conversations with landowners in specific intervention locations (utility and infrastructure companies); and
    - Via a broker for international carbon market engagement (food retailer). The interviewee also acknowledged the potential for local projects with local partners.
- The broker platform interviewee explained how the organisation is looking for projects of a minimum size- around 500ha- and that they work directly with landowners e.g., setting up contracts for project management plans. Funds are distributed through year-on-year payments based on proof that the landowner has delivered according to the plan.
- A Defra ALB interviewee felt that this was an area which buyers have found difficult, that they are unsure how to find projects and how to engage.
- The absence of a readily accessible portfolio of trusted supply was highlighted as a significant issue by one of the large utilities.

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Buyers find and interact with suppliers in varying ways according to their preferences, needs and experience. Marketplace/broker platforms are useful for more simple markets and for buyers who want a hands-off approach. For trades which are spatially specific or where a relationship is already built, buyers and suppliers may directly engage with each other.

Literature Review Findings (continued)

- There is a proliferation of platforms, marketplaces, brokers and intermediaries connecting buyers and sellers in nature markets. Most have focused on carbon and BNG to date, but may try to move into more nascent markets as the skills and infrastructure required will be largely similar. Wilder Carbon for instance, acts as a broker, or marketplace, for all projects validated and verified to its Standard. These are displayed on an interactive map.
- Nature North's 2023 Finding the Buyers report suggests that developing relationships between buyers and sellers is considered particularly important by buyers, given the untested nature of these markets.
- The Ecosystem Knowledge Network Nature Finance Review (2023) states that only a limited number of suppliers conduct demand analysis.
- Aggregators, such as Wildlife Trusts or Rivers Trusts, have been motivated (e.g. through grants from Government such as NEIRF and Esme Fairburn) to co-design markets in conversation with potential buyers and sellers. For instance, to create the Wyre NFM market, the Wyre Rivers Trust engaged with a bank, an insurer, a water company, a statutory agency and the government's flood re-insurer and also approached local landowners based on hydrological modelling to deliver ecosystem services. A key driver for working together was to share the cost, as well as the burden of project development. Ultimately, each party pays a fraction of the cost while receiving all the benefit. A similar co-design approach is adopted by LENS where a consultant facilitates the conversations.

A6. How do buyers envisage the market developing in the coming years?

There was general consensus from stakeholder engagement that nature markets will grow in the future, especially if certain key players and large companies move first and stimulate the market/demonstrate benefits. However, there are challenges and barriers which may hinder market growth (discussed further in Section D).

Literature Review Findings

- Nature North's 2023 Finding the Buyers report stated that "short-term progress on generating private funding towards nature recovery may currently be best sought through donations or grants towards developing innovation or best practice."
- The report further reported that "some businesses anticipate increasing societal pressure - increased demand from customers will drive businesses to spend more in nature markets."
- In wider research into BNG habitat banking by Eunomia for Natural England, an interviewee from a habitat banking organisation felt that, at present, voluntary nature markets are 'extremely nascent' but believed that voluntary demand will become bigger than compliance in the longer term.

Stakeholder Engagement Findings

- Two interviewees from retail and insurance companies expect that more companies will begin to engage with these markets once the way has been paved by the early adopters. One interviewee felt that no company wants to be the first mover (in case of reputational damage), but they do not want to be 'left behind' either.
- One investment company interviewee felt that the nature market in general will continue to grow, led by carbon. The interviewee felt that BNG will also grow but with more uncertainty about its longevity, while NFM was considered difficult to scale.
- The same interviewee noted that for scalable markets, the finance sector needs to meet their nature positive carbon targets, but that this would only happen when regulation bites.
- One eNGO interviewee felt that it will take time for: a) processes for markets like BNG to establish, b) for buyers to identify their needs and next steps, and c) for local planning authorities to embed processes within their systems.
- One water company was more pessimistic: they felt that the increased expectation from Government for water companies to deliver with certainty, and the parallel pressure on farmers to be able to hold on to their own mitigation credits (because of more regulation and supply chain pressure on them) will bring an end to nature-based solutions, despite what the recent Levelling Up Act aspires to enable.

Research Theme A- Ecosystem Service Demand

Wider cross-cutting reflections from the project team

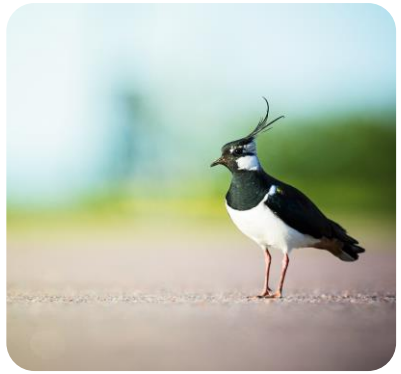
1. Regulation is driving the purchase of services to enhance biodiversity (BNG units) and water pollution reduction (nutrient credits for nutrient neutrality).
2. Interestingly, the more established online marketplaces deal with ecosystem services with more certainty i.e., the mandatory, regulated markets, whereas the purchases for voluntary markets are much more about trust and relationships, building projects together to ensure specific goals, aims and targets.
3. Catchment markets (and other marketplaces) are useful for the more straightforward, compliance markets, like BNG and nutrient neutrality.
4. Natural flood management is emerging and increasing but is considered much more difficult to quantify benefits.
5. Flood and non-mandatory water services are much more spatially specific, meaning businesses may target and approach specific landowners and develop projects in partnership.
6. There is an expectation that social benefits will be better understood and become a bigger part of such decisions for businesses, rather than just offsetting/mitigating harm.

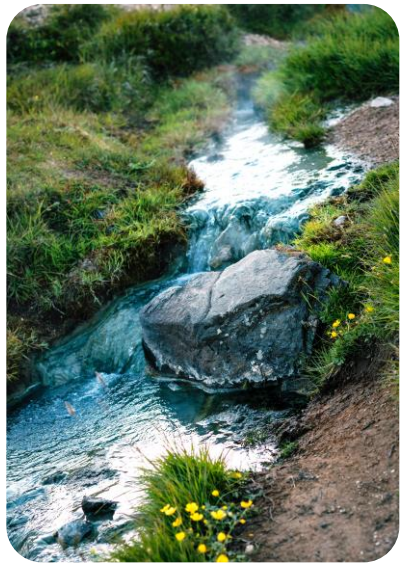
Research Theme B: Buyer Interests – Summary of Findings

This slide summarises key themes emerging from the literature and stakeholder engagement examining what drives buyers to purchase ecosystem services. The slides that follow provide detailed responses to each of the three research questions. Wider cross-cutting reflections from the project team are provided at the end of this section.

Key themes emerging from the literature and stakeholder engagement:

1. Motivations for purchasing ecosystem services vary but common themes include to meet existing or anticipated regulation, to enhance reputation with, or to respond to the needs of, shareholders or customers. Other reasons for engaging with nature markets include cost savings (e.g. from reduced flood damage), risk management and recognition that it is 'the right thing to do'.
2. The Taskforce on Nature-related Financial Disclosures (TNFD) and Science Based Targets Network (SBTN) are generally recognised, but neither are universally used. Stakeholders recognise benefits of such frameworks, including supporting companies to understand and quantify their impacts, as well as helping create business cases for investing in nature.
3. Large, forward-thinking companies are leading the voluntary nature market and are typically also TNFD 'first movers'. Such buyers look for projects which enable them to 'tell a story', which have multiple benefits in relevant locations or which relate to their operations.





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B1. What are the main motivations for purchasing ecosystem services

Motivations for purchasing ecosystem services vary but common themes include to meet existing or anticipated regulation, to enhance reputation with, or to respond to the needs of, shareholders or customers. Other reasons for engaging with nature markets include cost savings, risk management and recognition that it is 'the right thing to do'.

Literature Review Findings

- Research conducted by Nature North in 2023 with 100 organisations captured the following results for key buyer motivations:
  1. Offsets (involving decarbonisation and BNG) (74%)
  2. ESG pressure from investors and consumers (53%)
  3. Outcome-based (e.g., managing impacts, risks and dependencies) (39%) expected to increase
  4. Philanthropy (which itself is driven by ESG pressures) (36%)
- The Broadway Institutes' State of UK Nature Markets report (2023) states that government policy and regulation are the most important drivers of nature markets currently.
- Some buyers are motived by material risk reduction, such as minimising the costs associated with flooding (e.g., in the Wyre NFM project)(GFI).
- In wider research into BNG habitat banking by Eunomia for Natural England, an interviewee from a habitat banking organisation reported that in the voluntary market, they are working predominantly with large, forward-thinking companies seeking to lead in this area. The sectors they are engaging with include media, agriculture, finance, raw material extractors, food and drink retailers and cosmetics and pharmaceutical companies. These large companies typically have numerous stakeholders/ shareholders, or wider regulatory demands such as Corporate Sustainability Reporting Directive (CSRD) though operations in Europe. Importantly, the companies are looking for projects which they can relate to, or which have supply chain relevance, and about which they can 'tell a story'. Location is often important, as is community involvement and sharing benefits.

Stakeholder Engagement Findings

- From the stakeholder engagement, four key reasons buyers are purchasing ecosystem services were identified:
  - Regulatory requirements, notably for BNG and nutrients;
  - Commercial drivers and cost-benefit analysis;
  - Organisations who have made firm commitments and are likely/with the potential to be regulated in the future.
  - Organisations who have an impact or nature positive strategy, often part of ESG or CSR objectives, or are driven by customer opinion/reputation.
- Regarding regulation for example, a water company interviewee noted than in addition to BNG and nutrients, they also used ES to meet SSSI requirements on company-owned land.
- Regarding cost drivers for instance, one infrastructure interviewee explained how the reducing costs associated with flooding or delayed trains was a key driver, as well as reducing reputational risk.
- Regarding commitments, an insurance company interviewee noted that not all their supply chain and customers will reach net zero by 2040, which is the corporate target. The company is therefore are offsetting now against those future upstream and downstream emissions.

B1. What are the main motivations for purchasing ecosystem services

Motivations for purchasing ecosystem services vary but common themes include to meet existing or anticipated regulation, to enhance reputation with, or to respond to the needs of, shareholders or customers. Other reasons for engaging with nature markets include cost savings, risk management and recognition that it is 'the right thing to do'.

Literature Review Findings (continued)

- Wider Eunomia research for Shropshire Wildlife Trust and the Tamar Valley AONB showed that:
  - CSR profile is an important indicator of potential business interest in ecosystem service purchases.
  - Carbon related goals were the most prominent and frequently mentioned issue motivating project engagement.
  - Stakeholder expectations are also important, as are environmental legislation and contractual compliance, reputation, desire to support health and wellbeing (including of staff) and social impact.
  - Some businesses needed a financial return to engage in nature markets.
  - Biodiversity is for the most part viewed through the lens of compliance with legislation.
  - Alignment to the personal interests of directors/CEOs can either drive, or limit, engaging with nature markets

Stakeholder Engagement Findings (continued)

- Regarding ESG/CSR, customer influence and reputation:
  - An insurance company interviewee noted that the organisation wants to be seen as a leader in this area.
  - Delivering wider social value was important to some stakeholders, who noted that there were alternative often cheaper approaches they could have pursued, but the additional benefits of the selected projects and nature markets were key factors in decision-making.
  - Customer preferences was highlighted by one water company interviewee. Which interventions customers are happy for the company to spend money on influences decision-making.
  - One food retailer interviewee reported both a general obligation to demonstrate to their customers that their farms are not having a huge negative impact on the environment (although customers are not explicitly demanding change) and pressure from investors with their own ESG targets to meet.
- One interviewee from an environmental regulator noted that when looking to purchase ecosystem services, corporates are concerned about greenwashing. This was echoed by a retail interviewee who described the risk around paying for an environmental outcome which they could not measure or prove.
- Three interviewees from water, infrastructure and housing companies were engaging with ecosystem services because it is 'the right thing to do'.

B2,3&4. What are buyers' perceptions of the Taskforce for Nature-Related Financial Disclosures (TNFD), the Science Based Targets Network (SBTN) and other nature positive initiatives?

The TNFD and SBTN are generally recognised, but neither are universally used. The benefits of such frameworks include supporting companies to understand and quantify their impacts, as well as helping create business cases for investing in nature.

Literature Review Findings

- According to Nature North, many organisations expect to align to TNFD recommendations using experience of teams already working with the Task Force on Climate-Related Financial Disclosures (TCFD).
- Nature North's 2023 Finding the Buyers report found that corporates are increasingly being pushed to understand their value chain (scope 3) emissions by SBTi and TCFD. SBTN and TNFD are likely to drive the same process for nature.
- In wider research into BNG habitat banking by Eunomia for Natural England, an interviewee from a habitat banking organisation reported that almost all the companies they engage with in the voluntary nature positive market are influenced by TNFD or are considered TNFD 'first-movers'. Some companies are driven by philanthropy, but drivers are typically risk management, recognition that they have dependencies on nature, influence from TNFD and meeting stakeholder or wider regulatory demands.

Stakeholder Engagement Findings

- Three interviewees from a utility company, insurance company and a broker platform are signed up to TNFD. One retailer was part of a TNFD trial, and a second retailer is currently signed up to TCFD with the intention to move to TNFD.
- Those interviewees who consider such frameworks useful, referenced the following reasons:
    - TNFD is a useful way of reporting activity and can signal 'value for money' with projects;
    - TNFD, SBTi etc can help with the language, methodologies and quantification businesses need in this area.
    - TNFD can help companies understand their impacts and build business cases for investment.
    - Such tools are important for signalling a direction of travel for the economy as a whole and of government's expectations of businesses.
    - Metrics are expected to be useful and drive change because they allow users to see gaps in existing strategies. There was also a perception that learnings from TCFD will make the introduction of TNFD easier.

B2,3&4.

What are buyers' perceptions of the Taskforce for Nature-Related Financial Disclosures (TNFD), the Science Based Targets Network (SBTN) and other nature positive initiatives?

The TNFD and SBTN are generally recognised, but neither are universally used. The benefits of such frameworks include supporting companies to understand and quantify their impacts, as well as helping create business cases for investing in nature.

Stakeholder Engagement Findings (continued)

- For those not engaged, there were different reasons given, for instance:
    - A housing developer interviewee had not heard of TNFD;
    - An infrastructure interviewee acknowledged that TNFD was 'on the horizon' but the organisation had not yet decided whether to join.
    - A water company interviewee said that TNFD has not driven their decisions- they are mainly driven by the 25YEP or carbon targets.
- The likelihood of TNFD stimulating activity directly was questioned. For instance, one interviewee felt that unless mandatory, such frameworks will not influence decisions beyond those already engaged.
- A broker platform interviewee was aware of 'Now for Nature' (a global campaign to encourage businesses to develop a nature strategy) but believed that their organisation is the only one getting third party endorsement and that others seem to have a governance structure that is not quite independent.

Research Theme B- Buyer Interests

Wider cross-cutting reflections from the project team

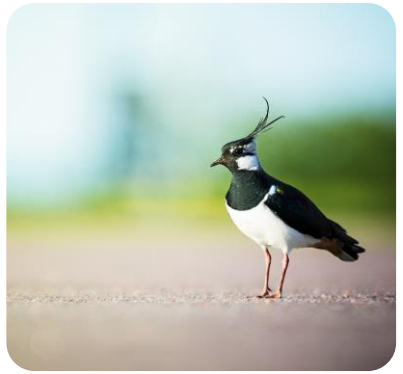
1. Regulation is currently the prime driver for purchasing Biodiversity.
2. Value for money is the prime driver for purchasing water quality-based ecosystem services. Nature-based solutions can have lower carbon impacts and lower cost/kg of pollutant removed than traditional infrastructure solutions.
3. Despite the significant challenge for companies to meet their Net Zero commitments, there is a hesitancy to buy carbon units/credits. This has been exacerbated by recent media coverage around the trustworthiness of some international carbon credits.
4. However, several interviewees expected the demand for nature-based carbon to rise. Two reasons appear to drive this belief. Firstly, companies at the leading edge of Net Zero commitments are beginning to feel confident that they can demonstrate that they have pursued all the feasible actions for carbon avoidance. Hence offsets can now be seen as a valid solution, not greenwashing. Secondly, and linked to this, the increasing focus on Scope 3 emissions within Net Zero reporting, where their control is limited, is driving them to buy carbon as an insurance against slow action by these parts of their supply chain.
5. Interviewees from all sectors indicated that an important aspect of investing in nature was to be seen to be doing "the right thing" with their customers, especially regulated utilities.
6. Some interviewees preferred to buy whole projects with multiple different ecosystem services. This can be seen as a rational "insurance policy". Delivery in several dimensions is a good hedge against future regulatory uncertainty.

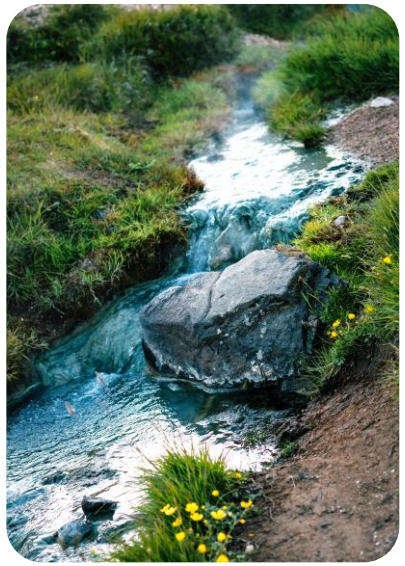
Research Theme C: Buyer Preferences – Summary of Findings

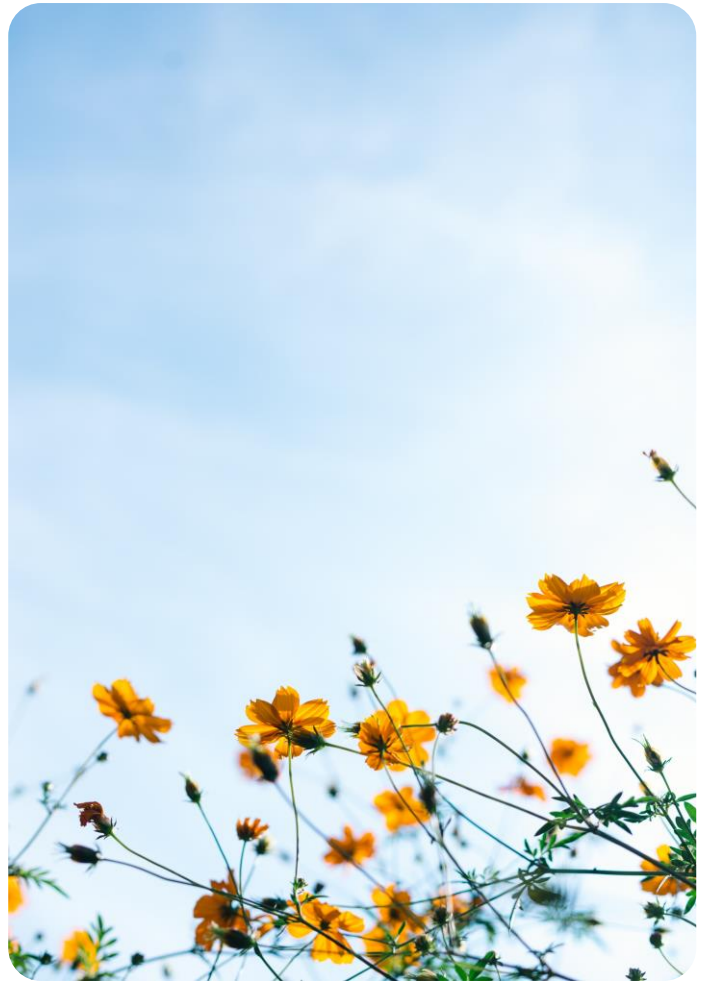
This slide summarises key themes emerging from the literature and stakeholder engagement examining What makes a particular product more attractive to buyers. The slides that follow provide detailed responses to each of the 9 research questions. Wider cross-cutting reflections from the project team are provided at the end of this section.

Key themes emerging from the literature and stakeholder engagement:

1. "High-integrity" is interpreted differently by the different buyers, reflecting the lack of standardised definition. Generally, the high-integrity principles are seen by buyers as important however no specific price premium was stated.
2. There is interest among buyers in projects which provide multiple benefits (and evidence of price premiums being achieved) however these benefits must outweigh the additional costs associated with incorporating environmental and social elements into project design.
3. For compliance markets and carbon (to meet net zero targets), quantification is essential, however for projects with a more social value/impact focus, quantification is less important.
4. The overall cost of the project or product purchased was highlighted as the most important factor for buyers. Other important factors include the presence of multiple benefits, a credible delivery partner and proximity to own customer base.







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C1. How interested are buyers in high-integrity products/projects? Is there a price premium for them?

"High-integrity" is interpreted differently by the different buyers, reflecting the lack of standardised definition. Generally, the high-integrity principles are generally seen by buyers as important however no specific price premium was stated.

Literature Review Findings

- To help overcome the lack of standardised definition, the BSI's Nature Investment Standards Programme is tasked with defining what high-integrity means with respect to nature markets and to establish a standards framework to address barriers to investing in nature. Moreover, in 2023, the Wildlife Trusts in collaboration with other organisations published their 'Nature Market Principles', setting out 7 key principles for determining the integrity of a nature recovery project: Science-based nature recovery; Environmental & social safeguarding; Additionality; Permanence & financial prudence; Seeks co-benefits; and Verifiability and Transparency.
- Previous research conducted by Eunomia for Shropshire Wildlife Trust, found that buyers required higher levels of monitoring and verification when seeking formal carbon or BNG offsets. A lighter form of monitoring was considered suitable by businesses looking to achieve health, wellbeing, CSR and social-related goals e.g. before and after photos or occasional visits to a site.
- The uptake of higher priced units under the Woodland Carbon Code, Peatland Code and Wilder Carbon all suggest buyers are willing to pay more for projects of higher integrity and are not simply focused on buying a tonne of carbon. The average price of Woodland Carbon Code units increased from £16 in 2021 to £24 in the first half of 2023 with a spread price (i.e. the difference between highest and lowest reported price) of £37.50 in 2023 reflecting buyers are willing to pay more for project factors such as high-integrity, co-benefits and closeness to business interests. Similarly, Peatland Code units in 2022 traded at around £24, with a spread price of £25. Wilder Carbon effectively markets itself as providing a nature-first, high-integrity approach for carbon and biodiversity. It sets the price and brokers units, working only with buyers who demonstrate they align with Wilder Carbon principles (buyers also have to pay to get this approval). Wilder Carbon units have recently traded for £75.

Stakeholder Engagement Findings

- Buyers expressed greater importance of the integrity of the project (and project developer) than the product itself. Important aspects included:
    - **Credibility/trust**: buying from an organisation with a strong reputation and long-standing track record on environmental issues, such as a charity.
    - **Local presence**: buying from an organisation that has been working in that region for a while and fully understands local issues.
    - **Experience**: evidence that the project developer is well-trained and works to a high standard.

C2. How interested are buyers in products/projects that provide multiple benefits and is there a price premium for them?

There is interest among buyers in projects which provide multiple benefits (and evidence of price premiums being achieved) however these benefits must outweigh the additional costs associated with incorporating environmental and social elements into project design.

Literature Review Findings

- Nature North's 2023 study 'Finding the Buyers' found many organisations wanted to maximise the range of potential benefits resulting from nature finance transactions.
- The study also found there was particular interest in improving understanding and valuing associated social and economic benefits (e.g. access to greenspace, mental health, climate change adaptation). Social and health benefits align with corporate value, but lack of clear means of valuing these benefits restricts investment into them.
- Wilder Carbon takes a nature-first approach, focussing on creating and restoring functioning ecosystems with maximum biodiversity uplift. In part due to this, as well as factors discussed on the previous slide, their units have all sold for £75/tonne, roughly quadruple the market rate for carbon units (data not available on the Wilder Carbon website, but widely known).
- In Eunomia's wider research into nature markets for the Welsh Government, many stakeholders indicated that existing carbon codes and standards, especially for woodland, do not do enough to add value, for example by enhancing biodiversity (and wider environmental benefits). Although many WCC projects provide wider benefits, there is currently no mechanism to quantify them. As a result, several eNGOs indicated that they are developing their own internal standards which explicitly consider wider benefits, and there are currently projects in development to measure wider benefits from nature restoration projects such as the Woodland Water Code and the IUCN Biodiversity Crediting Project.

Stakeholder Engagement Findings

- Widespread agreement among buyers that projects providing multiple benefits are preferred to those delivering a single benefit.
    - A range of wider environmental and social benefits were mentioned including biodiversity, natural flood management, access to green space, recreational use, job creation and volunteering.
    - A large food retailer stated that it is easier to justify the investment for projects with multiple benefits (that align with their social and environmental goals).
    - A financial company stated that projects making material biodiversity improvements are easier for stakeholders to picture and support. Incorporating these aspects allows the buyers to report on them to build reputation and increase stakeholder buy-in.
- No specific price premiums however were raised by the buyers:
    - A water company stated that they are interested in pursuing wider benefits as long as the costs are aligned with the benefit they expect to receive from meeting these additional targets or requirements.
    - A financial company stated that the price obtained by Wilder Carbon, incorporating wider benefits is the highest premium they have seen in the market.

C3. How interested are buyers in projects already delivering benefits (ex-post) as opposed to those planned in the future (ex-ante)?

For carbon and BNG, the risk element of pre vs post is already accounted for by the metrics, and explicitly built into the credit/unit price. For nature markets more generally, there are trade-offs to buyers in terms of certainty over the outcomes/units available to purchase vs control over project design and assurance over additionality.

Literature Review Findings

- Over 99% of Woodland Carbon Code units (and 100% for Peatland Code) traded in 2022-2023 were Pending Issuance Units (PIUs) – i.e. carbon units sold before the sequestration took place, as it typically takes a project over 5 years to generate verified units. Given the WCC launched in 2011, there has been limited opportunity for the sale of verified units. The expectation of market dynamics points to a significant price premium for ex-post units once they become available.
- There is no recorded price premium (yet) for post-enhancement BNG units (i.e. where the habitat restoration has already taken place). Since the Defra BNG metric explicitly discounts the number of units available when sold as pre-enhancement (i.e. where the habitat restoration is yet to take place), any price premium may already be reflected. Both have the same 'value' to the developer as both can be used to gain planning permission.
- From the carbon and BNG examples above, it can be seen that the risk element of pre vs post is already accounted for by the metrics, quantification and verification methods. Therefore, the price premium is not driven by this risk factor, but by the direct 'value' (i.e. whether the unit can be used immediately to offset emissions, or whether one has to wait) of the differentiated types of units. Whether this logic applies to the emerging markets for other ecosystem services or not remains to be seen.

Stakeholder Engagement Findings

- Interviewees were mixed in their preference for ex-post and ex-ante projects.
- On the one hand, completed or projects near completion provide buyers with:
    - **Greater certainty** over outcomes and units available to purchase.
    - **Lower risk** of project delays and reputational damage from under delivery.
    - **Project specific marketing material** which can be used for promotional/reputational purposes.
- On the other hand, some buyers preferred to develop the projects in partnership with the sellers and hence engage before the project has been fully designed. This provides them with:
    - **Greater control** over project design and outcomes.
    - **Assurance** over additionality, i.e. that the project wouldn't have been delivered without their funding/involvement.

C4. What differentiates the individual carbon codes to buyers, which are the most attractive, and why?

There were no broad preferences over the type of carbon code the units come from, as long as the standards they conform to are well tested and robust. Of greater importance is the location of the project and the details of the project itself i.e. the wider benefits it provides.

Literature Review Findings

- Wilder Carbon recently traded for £75 per tonne of carbon, well above the market price under the Woodland Carbon Code. As discussed in C1 and C2, this reflects a combination of factors, including its ability to set its own price (whereas under the WCC, units trade for a range of prices as each sale is a private negotiation between buyer and seller) and its ability to effectively market its nature-first, high integrity approach. While many WCC projects also provide wider benefits in terms of biodiversity, community, water, and economy, there is no mechanism to quantify these, so it doesn't define these in terms of an uplift and relies on the projects to market those benefits individually.
- Alongside the Woodland Carbon Code and Peatland Code, there are a number of other carbon codes in development. These include agri-environmental (such as farm soil, hedgerows and agroforestry), saltmarsh and other blue carbon codes (such as tidal marshes, mangrove forests, seagrass beds). While these are in different stages of development, all are currently in their infancy. To the authors' knowledge, no published evidence exists as to buyer preferences between the individual carbon codes and any associated price premiums.

Stakeholder Engagement Findings

- Among the buyers interviewed, there were no broad preferences over the type of carbon code the units come from. Of greater importance is the location of the project and the details of the project itself i.e. the wider benefits it provides (see C2). A food retailer stated that they are currently working on their strategy for the different codes at the global level.
- No evidence of price premiums was raised by the interviewees other than what has been achieved by Wilder Carbon (see C1), though it was recognised that the volume of trade has been small.
- The Woodland Carbon Code and Peatland Code were most frequently named by interviewees and recognised for their rigour/robustness. Most interviewees asked were aware of the other emerging carbon codes and acknowledged that they are in development.
- A food retailer stated that they were considering the emerging codes (especially soil carbon) for insetting purposes to decarbonise their supply chains.

C5. How important is it to buyers to purchase a quantified unit/credit of ecosystem services as opposed to the claim over qualitative outcomes?

The importance of quantified outcomes varies across organisations and depends on the type of ecosystem service/environmental outcome as well as the motivations of the buyer. For compliance markets and carbon (to meet net zero targets), quantification is essential, however for projects with a more social value/impact focus, quantification is less important.

Literature Review Findings

- One of the main projects in the 2023 Nature North report, the Aviva/Wildlife Trust rainforest work, was funded as an environmental, social, and governance (ESG) donation, with carbon sequestration, air quality and volunteering opportunities seen as (necessary, in the case of carbon units) co-benefits. Quantification and assurance of the carbon units was vital.
- Due to the relatively under-developed nature of quantification in certain nature markets, many businesses are investing in projects that will help to develop best practice in this area, to be seen as leading the way, and differentiate themselves from competitors.
- Using the Wyre NFM project example as explained by GFI Hive, accurate modelling and quantification are vital for buyers, as the value generated is not from a credit or offset, but from cost savings resulting from improved ecosystem service provision.

Stakeholder Engagement Findings

- Stakeholders broadly felt that quantified credits are important, particularly across the carbon and biodiversity markets:
    - A water company interviewee noted that the organisation looks to purchase credits which are robust and science based.
    - One large food retailer interviewee stated that credible, quantified carbon reductions from a tried and tested method, and ideally accredited, are vital for the company.
- However, for projects with a more social value/impact focus, interviewees noted that quantification of credits is less important.
- A broker platform has created a framework to monitor ecosystem integrity of projects with an index score out of 100. They implement land management practices to assist projects and credits are created for any biodiversity uplift. These credits are listed on a blockchain so that the data is immutable and cannot be double counted.
- One large retailer stated that they are nervous about paying for ecosystem services due to the challenge in accurately measuring them.

C5. How important is it to buyers to purchase a quantified credit of ecosystem services as opposed to the claim over qualitative outcomes?

The importance of quantified outcomes varies across organisations and depends on the type of ecosystem service/environmental outcome as well as the motivations of the buyer. For compliance markets and carbon (to meet net zero targets), quantification is essential, however for projects with a more social value/impact focus, quantification is less important.

Literature Review Findings (continued)

- Previous Eunomia research into buyer preferences for the Shropshire Wildlife Trust found that:
  - Five of seven interviewees said they would prefer some form of progress reporting or quantifiable measures to monitor the impact of a project. Three mentioned that a knowledgeable third party could conduct such data collection and monitoring. In comparison, two interviewees noted they would not require formal/detailed monitoring and reporting, although they would still want assurance that the project had delivered its aims.
  - Three interviewees said a significant factor determining how much they value a project is the ability to disseminate outcomes in layman's terms – one respondent felt their customers wouldn't understand metrics or statistics.
  - One interviewee noted that targets that are measurable and quantifiable are preferable e.g. the number of bird species before and after implementation.
  - Three others noted that outcomes of funding any nature project would need to be reported to a board or financial/sustainability committee or external auditors.
  - Businesses valued environmental outcomes in different ways depending on business interest, values, goals, targets and reporting or auditing obligations.

C6/7. How do buyers view the importance of: I) accreditation, II) whether ecosystem service products align with international standards and III) government recognition of high integrity units/outcomes? What does achieving these standards mean for their business?

Accreditation was seen as important for some buyers, especially larger organisations seeking investment. Other important considerations (not necessarily formal accreditation) include the perceived deliverability/enforceability of the project so that it achieves intended outcomes, and the experience and attitude of the delivery partners.

Literature Review Findings

- No findings identified in the literature.

Stakeholder Engagement Findings

- There is variability in understanding of these standards across stakeholders, but **accreditation is of high importance for some**:
  - A Wildlife Trust stated that they are very careful on who they work with to ensure they have the necessary accreditations.
  - A broker platform highlighted that accreditation of projects by an independent scientific body has enhanced their engagement with potential buyers.
  - A large retailer noted that achieving these standards is important for gaining investment, as large investment companies have ESG teams ensuring they're fulfilling their targets around nature.
- But other considerations were highlighted as equally or more important:
  - The perceived **deliverability and enforceability** of the project so that it achieves intended outcomes.
  - The **experience and attitude of the company** buyers are partnering to deliver the work.
- None of the interviewees considered Government recognition of high integrity units/outcomes as necessary.

C8. How important is it for the unit/credit to be verified by a third party and/or to have a strong credit risk rating?

As with quantification (C6), the importance of credit verification depends on the type of ecosystem service/environmental outcome as well as the motivations of the buyer. For compliance markets, verification is essential, however for voluntary markets, verification is driven by the perceived value for money in doing so.

Literature Review Findings

- GFI Hive states that "private buyers may only purchase the ecosystem services when delivery of the interventions has been verified by a third party", however, it doesn't provide any rationale or explanation for this.
- Previous research was undertaken by Eunomia for the Shropshire Wildlife Trust to understand the potential private market for ecosystem services on land managed by the Trust. The research found that none of the seven interviewed businesses said they would require formal professional verification of environmental outcomes – including voluntary biodiversity. One interviewee considered that if they were to use third party verification, it would depend on the cost and value for money.
- No literature was found in relation to the credit risk rating of the project or delivery body.

Stakeholder Engagement Findings

- Several interviewees indicated that **third party verification is important**:
  - A large retailer and water company both stated that they wouldn't purchase any credits without third party verification.
  - One noted that institutional credibility is important and that they trust large heritage/nature conservation organisations (e.g., National Trust or RSPB) the most.
- None of the interviewees discussed importance of credit risk ratings.

C9. What other factors influence buyer decision-making?

The overall cost of the project or product purchased was highlighted as the most important factor for buyers. Other important factors include the presence of multiple benefits, a credible delivery partner and proximity to own customer base.

Literature Review Findings

- **Proximity** was found as a key factor. In particular, the 2023 Nature North report stated that buyers are more attracted to projects that are close to their operations or value chain. Despite this, the lack of available (or acceptable) carbon offsets in UK mean businesses have so far spent much more abroad.
- Previous Eunomia research into buyer preferences for the Shropshire Wildlife Trust which interviewed seven businesses found:
    - **Formal agreement**: all interviewees wanted some form of agreement in place if they were to fund an environmental project. Formal vs informal agreement preferences depended on project purpose. BNG projects, high-cost projects and those undertaken to meet regulatory pressures all required formal agreements. For BNG, this was to deal with long timescales and the need for verified outcomes. Where informal agreements were preferred, some expressed the importance of a clearly defined project and responsibilities and that a broker could facilitate this to avoid conflict.
    - **Project duration**: all interviewees felt most comfortable with a project lasting five years or less. Reasons for this timeframe included internal budgetary timescales and business spending plans.
    - **Landowner relationship**: direct landowner relationships were preferred where businesses had the capacity to support this, and where a project was required to support the goals of a business. A trusted intermediary was favoured.

Stakeholder Engagement Findings

- The overall **cost** of the project or product purchased was highlighted as the most important factor for buyers.
- Other important factors influencing the choice of project/product include:
    - **High integrity** (see C1)
    - **Presence of multiple benefits** (see C2)
    - **Quantification/accreditation** (see C5-8)
    - **Credible delivery partner**: A large food retailer stated that credibility of the product is key i.e. that the project will be delivered to a high standard to avoid any risk of being accused of greenwashing.
    - **Proximity to own customer base**: A financial company raised proximity as being a key factor to engage and build reputation among the local community.
    - **Low number of co-funders**: A public body stated that risk is reduced when the number of co-funders is minimised.
- A key reason raised by a housing developer for delivering biodiversity improvements on-site as opposed to purchasing them through the market is the greater **control** it gives them and resulting reduced reputational risk. As such they are currently delivering all Biodiversity Net Gain on-site and expect to continue to do the same going forward.

Research Theme C- Buyer Preferences

Wider cross-cutting reflections from the project team

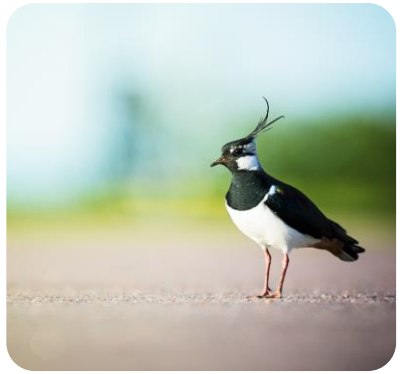
1. Where credits are bought for formal compliance/ quantified reporting purposes, it is vital for buyers that an approved method of accreditation can be proven.
2. Where more generalised "doing good in the right area" outcomes are being sought, the key factor for buyers is the credibility of the delivery organisation.
3. Buyers will support projects which appear to give a more holistic "good outcome" even in the absence of formal accreditation. Nevertheless, they still require some form of assessment as to the likely scale and type of ecosystem benefits to be delivered.
4. The support for a wider "good outcome for society/community" also applies as a differentiating factor when buying credits for compliance and formal reporting purposes
5. New metrics for assessing integrated ecosystem value could expand buyer demand to a wider range of projects/habitat enhancements, especially those that are difficult to fit into current formal accreditation methods. Credit Nature's approach to measuring changes in overall ecosystem integrity is an example of this type of metric – their support from TNFD and Scottish Government may lead to this gaining wide usage.
6. Major potential buyers are looking for large-scale portfolios of nature-based investments whose delivery is backed by trusted, high integrity organisations.
7. Regulators of utility companies require high-precision links between investments proposed by a company and the value for money offered by nature-based projects.

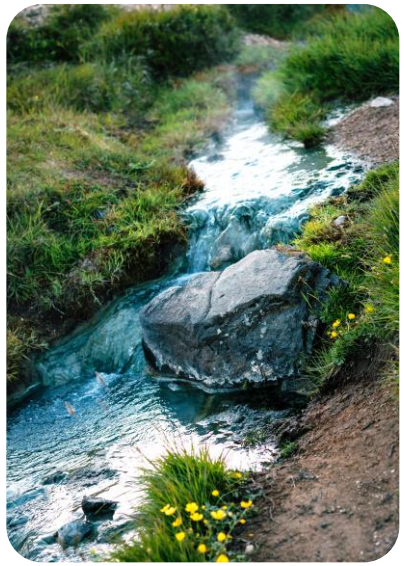
Research Theme D- Buyer Constraints – Summary of Findings

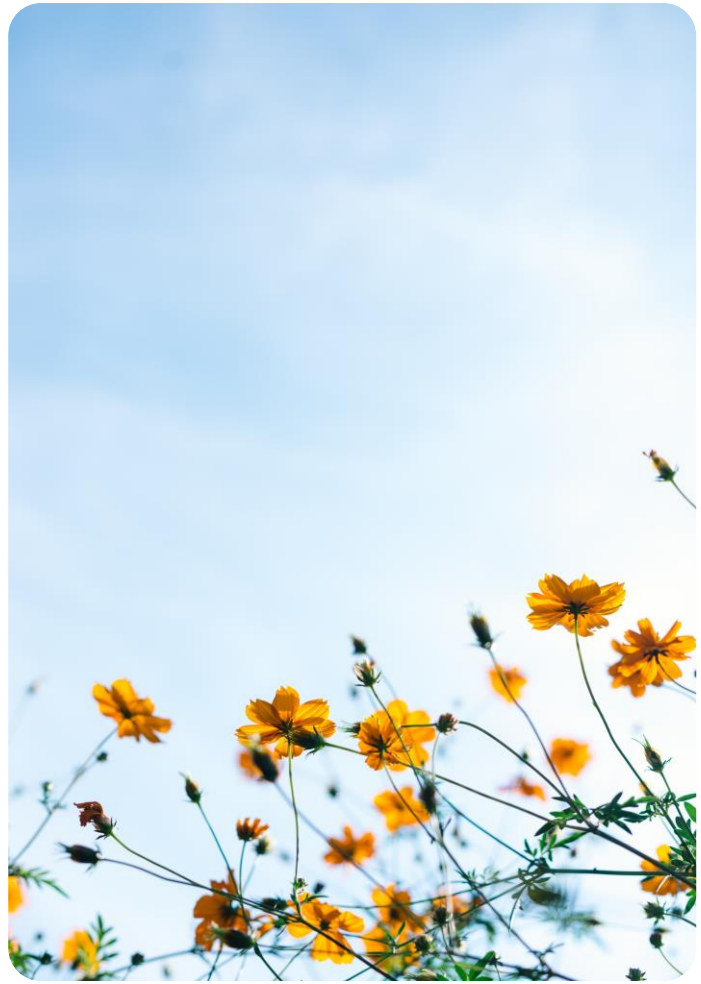
This slide summarises key themes emerging from the literature and stakeholder engagement examining what is holding back buyers from further investment in nature. The slides that follow provide detailed responses to each of the research questions. Wider cross-cutting reflections from the project team are provided at the end of this section.

Key themes emerging from the literature and stakeholder engagement:

1. The key challenges for purchasing ecosystem services relate to policy and market uncertainty, internal company factors such as understanding the benefits of ecosystem services, measuring outcomes and project factors (e.g. lack of scale, limited understanding of legal agreements).
2. Different buyers have different risk appetites; however, buyers typically prefer shorter timescales and may take steps to isolate or minimise risk. Long-term, large-scale investment projects are generally considered 'more risky', particularly if delivered with a third-party landowner.
3. Internal environmental targets and commitments can drive an organisation to engage with nature markets. In some companies, budget cycles limit the amount and timing of funding and therefore duration of projects. Justifying spending on nature projects, such as through a business case, is crucial in some businesses, especially those with a customer base.
4. Factors which could increase buyer confidence include: clearer policy direction/guidance, knowledge and education, creating high integrity markets, general support for buyers navigating the market and the role of partnerships.
5. Aspects of Government policy which could increase buyer confidence in nature markets are: most importantly, stronger Government direction and support, both in terms of knowledge and finance; provision of clear roles and responsibilities in the market; ensuring a level playing field; and providing incentives or regulation.







eunomia

D1. What are the main barriers and constraints to purchasing ecosystem services?

The key challenges for purchasing ecosystem services relate to policy and market uncertainty, internal company factors such as understanding the benefits of ecosystem services, measuring outcomes and project factors (e.g. lack of scale, limited understanding of legal agreements).

Literature Review Findings

- Numerous challenges emerged from the literature. These have been grouped into six themes below:
    1. **Policy**: complexity, uncertainty and inconsistency of economic and environmental regulation coupled with political policy shifting means costs of market participation outweigh benefits. The lack of institutional architecture for market oversight remains a barrier to trust and confidence (Broadway Initiative).
    2. **Internal company factors**: fear of accusations of greenwashing (Nature North). TNFD could help reduce this, although TNFD is still new and not yet widespread.
    3. **Skills and knowledge:** lack of skills and corporate understanding of biodiversity and nature-based solutions (Nature North and previous Eunomia research for NE).
    4. **Metrics**: lack of ability to value, report and demonstrate associated benefits (Nature North).
    5. **Projects**: length of projects, complex contracts, differing needs of buyers vs sellers, finance systems not used to accounting in this way, risk management (Nature North and NSW). Lack of project pipeline resulting from lack of capacity and skills in supply side sector (Nature North and NSW). Most projects that do exist are very small, which can be less attractive to some buyers (previous Eunomia research for NE).
    6. **Market uncertainty**: uncertainty around the price of outcomes/units in nascent markets (Nature North).

Stakeholder Engagement Findings

- Numerous challenges were raised by interviewees. These have been grouped into six themes below and on the next slide:
    1. **Policy**: lack of government support/guidance/drive, Defra and ALB regulatory barriers and uncertainty that certain measures will be enforced. General low policy literacy.
    2. **Internal company factors**: lack of understanding, education and knowledge around benefits or what ES a company needs to buy, which can make it difficult to make the business case to seniors. Lack of senior leadership or buy-in (internal culture) and the fear of greenwashing. The need to find a balance between international and domestic supply chains and concerns around costs especially for local projects (shifting from international to local). General risk aversion by companies and investors, for instance, some large companies are unwilling to be first movers.
    3. **Metrics**: lack of methodologies and metrics, especially for NFM. One interviewee felt the lack of NFM standards and accreditation limits the action which farmers can take up front. Some measures are also considered difficult to communicate to the public as statistics are not ‘tangible’.

D1. What are the main barriers and constraints to purchasing ecosystem services?

The key challenges for purchasing ecosystem services relate to policy and market uncertainty, internal company factors such as understanding the benefits of ecosystem services, measuring outcomes and project factors (e.g. lack of scale, limited understanding of legal agreements).

Literature Review Findings (continued)

- Previous Eunomia research into buyer preferences for the Shropshire Wildlife Trust which interviewed seven businesses found:
  - there was concern by some businesses that offsetting could be perceived as greenwashing;
  - provision of BNG was seen as challenging and expensive due to the need to work with landowners and maintain a long-term project off site;
  - there was concern around the need to ensure positive relations with the landowner as conflict could affect business reputation; and
  - there was concern that landowners would resist NBS, reducing the potential to collaborate.
- Wider Eunomia research into the development of a sustainable delivery model for nature recovery undertaken for the Welsh Government, some barriers identified by interviewees included:
  - the need for pilot/demonstrator projects at scale (in part being addressed through NEIRF and Landscape Recovery projects);
  - gaps in supply-side capacity, skills, and resources;
  - lack of market infrastructure (e.g. science standards) and lack of clarity over commercial, technical and legal implications of entering environmental schemes; and
  - wider concerns around impacts on food security, traditional jobs, heritage, land and housing access.

Stakeholder Engagement Findings (continued)

- Continued:
  4. **Market uncertainty**: lack of general understanding and confusion in an emerging sector which is changing rapidly. Uncertain prices and credibility around units/credits. Lack of market infrastructure, no central directory or glossary to help understanding and no framework for price points.
  5. **Projects**: a scarcity of large-scale projects for big companies. Lack of understanding around legal agreements. Lack of farmer confidence doing certain interventions such as NFM while regulatory requirements on farmers can also make it difficult for them to sell. Lack of landowner/farmer understanding around long term ES delivery i.e. BNG contracts for 30yrs. There was some concern around lack of UK supply of carbon removals/offsets. Difficulty engaging in emerging markets, such as the material risk and impact, flood and voluntary water quality markets resulting from:
     - Project length;
     - Novel contract arrangements;
     - Need to work with other buyers; and
     - Novelty of engaging with whole new category of supplier.

D2. How do buyers perceive risks associated with their purchases if they are delivered over time?

Different buyers have different risk appetites. Long-term, large-scale investment projects are generally considered more risky, especially if they are delivered with a third-party landowner. Buyers typically prefer shorter timescales (e.g., less than 10 years) and may take certain steps to isolate or minimise risk.

Literature Review Findings

- Previous Eunomia research into buyer preferences for the Shropshire Wildlife Trust which interviewed seven businesses found that around half of interviewees were open to multiyear project commitments, while two showed a preference for shorter timescales. No interviewee would fund or deliver a project in perpetuity, indeed, relatively short timescales were preferred e.g., <10 years. Aversion to long-term commitments was seemingly due to complexity and the short-term opportunity cost associated with the delay in achieving desired outcomes.
- The same research highlighted how formal contracts can help reduce risk for some buyers by including essential terms such as: start date/end date (contract length), project details, roles and responsibilities (obligations), clause of failure, payment terms and payment schedule.
- Research by Nature North highlighted how time is a bigger constraint to investment, less so for purchases. In addition, those in the construction sector are not confident about managing and maintaining land over 30 years so prefer to work with trusted providers with track record.
- For BNG there is the land banking model (where habitat work has not yet started, which contains an element of risk of non-delivery) or habitat banking model (where uplift has already been generated). Blending the two is a way of balancing risk (Nature North).
- The Green Finance Institute explains that staged payments, monitoring and verification of impacts of interventions, and transference of delivery risk to external investors are all ways to manage risk of long-term contracts.

Stakeholder Engagement Findings

- Interviewees talked more generally about risk management strategies and processes.
- More than one interviewee reported the challenge of investing in and relying on third-party management of non-owned assets (e.g. NBS on farmers' land). In this case, strong partnership-working and trust are important; delivery via intermediaries and eNGOs can help this.
- An insurance company interviewee reported that long projects with long-term agreements are considered risky. Investing via donations (CSR) rather than as a commercial decision was seen as a way to remove this risk.
- Wildfire was noted as a significant risk to some habitat work.
- Outsourcing risk and liability, such as through joint venture companies, was highlighted by a local authority interviewee.
- Structuring projects so that landowners do not receive funds all at once was noted by a broker platform interviewee. The platform uses year-on-year payments based on proof of delivery. The organisation is also in the process of getting their units accredited by an independent scientific body so that they are not 'marking their own homework'.
- Learning and sharing previous project outputs was noted by a water company.

D3. How do your organisation's policies and processes impact buyers' ability to gain approval to purchase ecosystem services?

Internal environmental targets and commitments can drive an organisation to engage with nature markets. In some companies, budget cycles limit the amount and timing of funding and therefore duration of projects. Justifying spending on nature projects, such as through a business case, is crucial in some businesses, especially those with a customer base.

Literature Review Findings

- Previous Eunomia research into buyer preferences for the Shropshire Wildlife Trust which interviewed seven businesses found the following:
  - Interviewees felt that CSR strategies provide a platform to get involved with environmental projects and made engagement with projects a more strategic decision. Businesses with significant CSR capacity, such as a dedicated team, felt more able to engage with projects.
  - Some businesses are unable to make long-term decisions due to internal budget deadlines/cycles and business plans.
  - Some businesses fund nature projects through charity budgets, whereas others noted that approval for a project was dependent on some form of return.
  - One water company interviewee reported that the company is no longer allowed to enter informal, non-binding agreements for ecosystem service projects; agreements have to become legally binding. The interviewee also noted that because the company is regulated, any investment has to be justified in relation to public bills. The company uses a cost curve to identify how much a project should cost per hectare which can help determine whether a project is under – or over-selling itself. The company also has criteria which the project/landowner has to meet, such as providing maps, SBI number and delivering a project above a certain size.

Stakeholder Engagement Findings

- Several stakeholders stated that internal policies were difficult to navigate due to the market being relatively new and staff members having limited understanding of ecosystem services.
- Submitting business cases was referred to by both large food retailer interviewees. One interviewee for example, noted that nature markets presented a 'completely different way of doing business' and that when a business case is submitted, their procurement team need to see value for money, which can be difficult to evidence.
- Having to justify spending on ecosystem services was also highlighted by an infrastructure company interviewee. The interviewee reported that the company has a mandate to spend on things that directly contribute to the railway running safely and efficiently. Spending on other benefits, however, has to be justified, by citing the Environmental Improvement Plan for instance.
- An ethical buyer's framework was described by one broker platform interviewee. This is an internal document which is used to assess buyers, ensuring they align with the organisation's moral and ethical standards.

D4. Which factors would increase buyer incentives or confidence in purchasing ecosystem services?

The literature review and stakeholder engagement shed light on several common aspects which could increase buyer confidence. These include clearer policy direction/guidance, knowledge and education, creating high integrity markets, general support for buyers with navigating the market and the role of partnerships.

Literature Review Findings

- Numerous suggestions emerged from the literature. These have been grouped into five themes below:
  1. **Policy:** addressed in D5.
  2. **Market integrity:** introducing more regulated markets. The operation of marketplaces like the catchment markets also give buyers confidence that markets are available, managed, fair and effective (Broadway Institute).
  3. **Partnerships:** Strategic partnership approaches which maximise corporate engagement in project development (Nature North). For instance, in material risk markets, having a consortium of buyers to share costs can incentivise buyers to purchase ecosystem services e.g., the Wyre NFM or 3Keel's LENS model, through which all buyers essentially receive 100% of the benefits, but only pay a portion of the cost. A Eunomia report for the Environment Agency investigating catchment-level partnerships for environmental gain found that buyers were positive about a role for partnerships to work across the catchment by articulating strategic environmental needs and supporting links between buyers, the public and land-owners.

Stakeholder Engagement Findings

- Interviewees reported several aspects which could increase confidence in nature markets, including:
  1. **Policy**: addressed in D5.
  2. **'The Art of the Possible':** examples/visibility of other organisations engaging with the market successfully (retailer).
  3. **Knowledge & education**: support with demonstrating business cases for internal buy-in and more consistent terminology around projects, standards and accreditations (two local authorities and a retailer).
  4. **Navigating the market**: support/guidance with market engagement, appropriate timelines, approaches and which identifies the needs of different sectors (local authority).
  5. **Integrity:** third-party verification using credible or modelled data and credible delivery institutions, such as the National Trust or RSPB (water company).
  6. **Partnerships:** one Defra ALB interviewee felt that partnerships between buyers and large third-party organisations, especially for new projects, may help provide more support.

D4. Which factors would increase buyer incentives/confidence in purchasing ecosystem services?

The literature review and stakeholder engagement shed light on several common aspects which could increase buyer confidence. These include policy direction/guidance, knowledge and education, creating high integrity markets, general support with navigating the market and the role of partnerships.

Literature Review Findings (continued)

Continued:

4. **Knowledge & education:**
   - Education to move nature up the corporate agenda (Nature North).
   - Quantifying the financial and economic risks from nature degradation nationally could stimulate more companies to address their own nature-related risks (Broadway Institute)
   - Increasing understanding and awareness of price signals are important to providing buyer certainty and confidence (Broadway Institute and previous Eunomia research for NE).

5. **Projects:**
   - More support and capacity building to develop projects on the ground (previous Eunomia research for NE).
   - Better quantification (monitoring, reporting and verification) of ecosystem service benefit will increase buyer confidence (GFI).
   - Projects at scale, e.g., regional or sub-regional, delivered by trusted partners such as those with a recognised brand and a track record of high integrity delivery, e.g., a wildlife trust, and a single point of contact for a project (previous research by Eunomia for NE).

D5. Which areas of Government policy (or lack of) impact buyers' willingness to purchase ecosystem services?

Aspects of Government policy which could increase buyer confidence in nature markets are: most importantly, stronger Government direction and support, both in terms of knowledge and finance; provision of clear roles and responsibilities in the market; ensuring a level playing field; and providing incentives or regulation.

Literature Review Findings

- Stronger government support, including financial, for the green agenda generally would lead to increased buyer confidence and help catalyse the market (Broadway Institute).
- Better/clearer stacking policy would allow a) buyers to purchase multiple benefits from a single project, and b) sellers to achieve better market value for the additional services (Broadway Institute).
- Making TNFD mandatory and providing a timeline for this to give businesses time to prepare.
- Wider Eunomia research into the development of a sustainable delivery model for nature recovery for the Welsh Government found that many actors across sectors require additional funding and central direction and coordination from the Welsh Government or NRW to engage with nature markets. Stakeholders from the private and public sectors shared the view that Welsh Government is responsible for setting the boundaries for payments for ecosystem services and to ensure safeguards are in place, which spread risks and support.

Stakeholder Engagement Findings

- **Guidance and clarity:** a utility company interviewee and a local authority interviewee felt that a clear policy direction from Government could increase business confidence and support long term strategies. The need for clear guidance and support for monitoring, reporting and verification were highlighted by retailer and broker platform interviewees. A second broker platform felt that as blended finance would be needed for many of these projects, more support is needed in this area, as well as specific policy around digital credits/assets to ensure transparency. Greater clarity around ELMs and which actors are responsible for what e.g., defining the roles of local authorities, policy makers and farmers, were further gaps identified by an insurance company. Clarity and guidance around tax, inheritance and requirements for buyers was also highlighted by a broker platform interviewee.
- **Create a level playing field:** two interviewees, from housing and retail, felt that policy should avoid disproportionately burdening some industries compared to others. One interviewee thought this could be fostered through making certain aspects mandatory, such as TNFD.
- **Stability:** a local authority interviewee felt that changes to policy and targets should be limited as this creates additional (administrative) burden for those implementing them. Moreover, a second local authority interviewee reported that buyers are wary of policy changing during a project which could then render the intervention undesirable.

D5. Which areas of Government policy (or lack of) impact buyers' willingness to purchase ecosystem services?

Aspects of Government policy which could increase buyer confidence in nature markets are: most importantly, stronger Government direction and support, both in terms of knowledge and finance; provision of clear roles and responsibilities in the market; ensuring a level playing field; and providing incentives or regulation.

Stakeholder Engagement Findings (continued)

- **Corporate language:** an infrastructure company interviewee felt that benefits or case studies around ecosystem services could be re-framed in terms of cost-effectiveness or 'doing the right thing'.
- **Longer-term data collection and flexibility of timescales:** a water company interviewee felt there should be less focus from Defra on data and measurement as this can be difficult when dealing with biological systems at scale. Looking over a 5-year period, rather than day-to-day may help this. An investor also noted greater flexibility around timescales.
- **Stacking and bundling**: clarity around how to stack and bundle different credits was mentioned by a broker platform interviewee while an investor suggested reconsidering stacking rules to reduce pressure.
- **Key stakeholders:** there was concern from an investment company interviewee that a lot of responsibility was sitting with local authorities, particularly for mandatory BNG, but they have limited resources and capacity to fulfil these roles. One ALB interviewee felt the need for an approach/policy which fostered greater collaboration between agricultural and nature areas.
- **Financial regulation:** an investor interviewee noted that big aggregated projects with investment from large financial institutions will drive things forward, but that financial regulation is needed.
- **Incentives**: one participant made an analogy to the Feed In Tariff (or the Woodland Carbon Guarantee) and wondered whether there might be some government incentive for businesses to invest in development of NBS.

Research Theme D- Buyer Constraints

Wider cross-cutting reflections from the project team

1. For high-value, long-term, high-profile carbon/habitat creation projects, risk over time is an important factor, mitigated by developing a strong, close working relationship/partnership with a well-known, well respected and well-established delivery organisation.
2. Significant perceived risk related to landscape-scale material impact/flood/voluntary water quality projects, especially as some are delivered (and benefits realised) over multi-decade timeframes. This can lead to lengthy (e.g. 18 month) contract negotiations. Initial contracts can be c.10 years (unprecedentedly long for utility companies) with break clauses dependent upon realising targets.
3. For BNG, as they are creditised, the risk of non-fulfilment is not borne by the buyer, but by the arrangements between the LPA, seller and intermediary.
4. Businesses are used to contracts that last between 1 and 3 years. Therefore, the long-term nature of some of these agreements (e.g., 50 years for Wyre NFM - albeit broken down to 9 years for the initial contract length, and even then with buy-back clauses) are very daunting and can be prohibitive.
5. There was a feeling that all want the market to develop and establish quickly to increase confidence in their choices.
6. Government should clarify the impacts of climate change, their plan for adapting to it, and where the responsibilities for this lie. This would enable insurers to plan and act in this space more meaningfully and with more confidence.
7. Government need to offer support for the green transition of jobs. The lack of leadership or a clear plan from Government on this is resulting in a skills and understanding shortage(ecological, management and legal) in the sector.

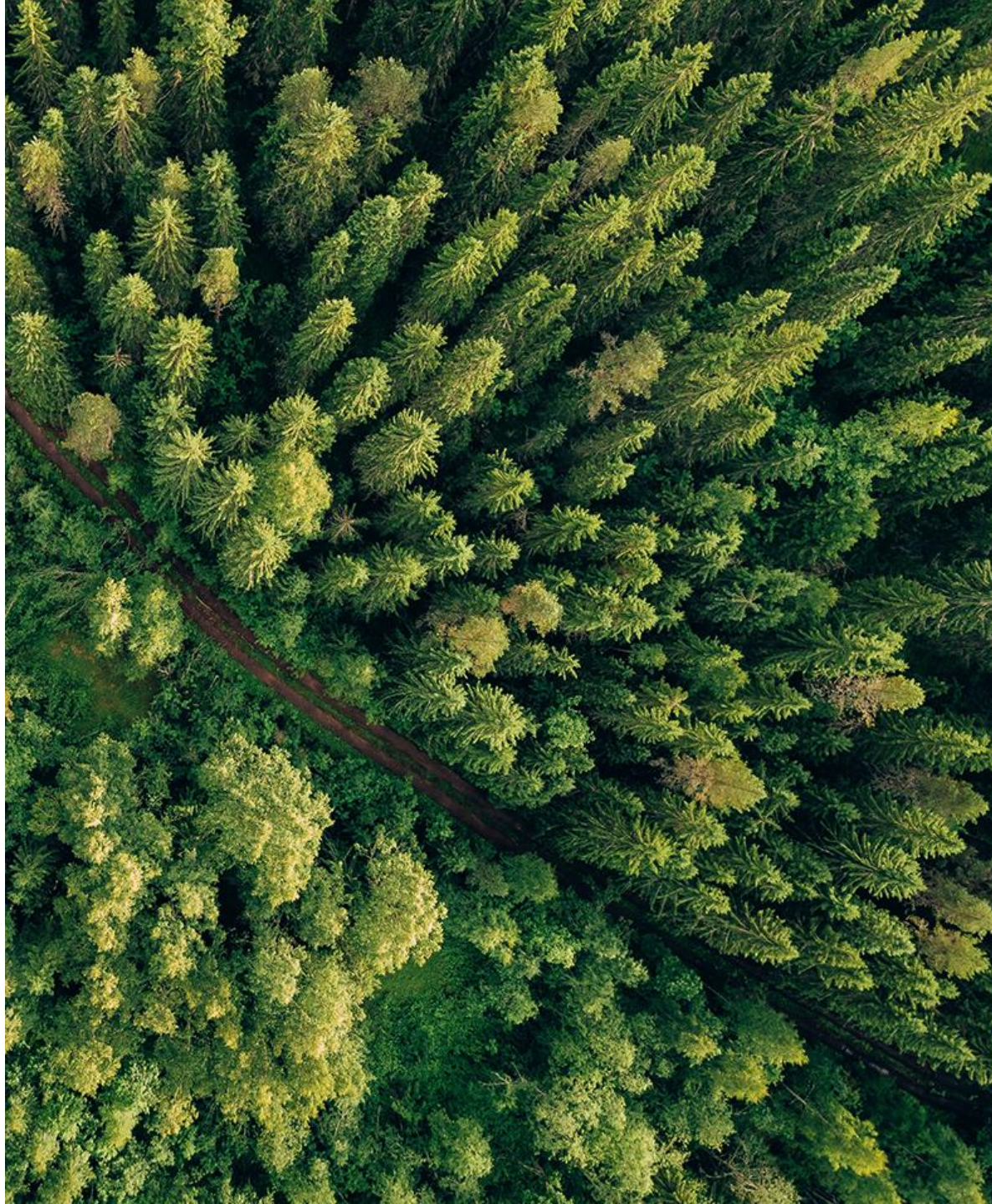
5

Discussion and Conclusion

Key Themes and Reflections

The following key themes and reflections emerged from the literature review and stakeholder engagement:

1. Demand for ecosystem services across the key nature markets
2. Understanding buyers:
    - Key motivations for purchasing ecosystem services
    - Buyer preferences and willingness to pay
    - Marketing to buyers
3. Actions which could support the development of nature markets
4. Evidence gaps



Key Voluntary Nature Markets

Carbon

Three broad types:

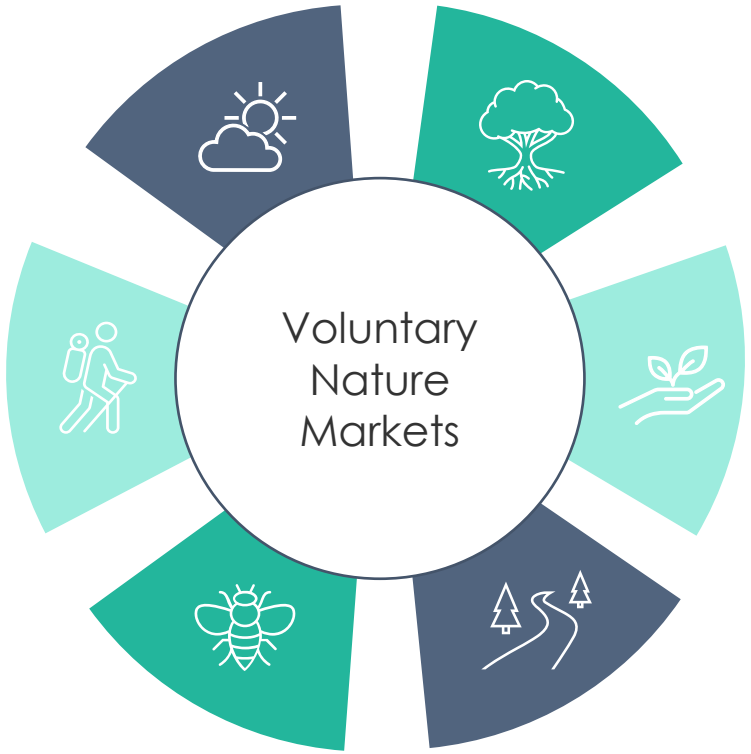
1. Accreditation through a nationally recognised and governed standard e.g. Woodland Carbon Code or Peatland Code.
2. Accreditation through a mix of science-based standards which may not yet be governed by a national standards body. Their value is often associated with a greater focus on biodiversity and wider benefits e.g. Wilder Carbon.
3. Accreditation standards currently in development such as soil, hedgerows, saltmarsh, wetland and blue carbon.

- **Example buyers:** corporates looking to meet net zero targets
- **High interest in (1), limited but growing interest in (2) and (3)**

Natural Flood Management

Payments for the use of nature-based interventions which increase flood storage in the landscape or which "slow the flow" during peak flood events to reduce the overall flood risk in localised areas.

- **Example buyers:** water companies, local councils, insurance industry
- **Despite interest, demand remains limited**



Voluntary Biodiversity

Payments for non-accredited improvements to biodiversity. Often measured against either area of habitat type created / improved or may increasingly come via improvements measured using newly emerging standards e.g. nature metrics developed for the Taskforce on Nature-related Financial Disclosures (TNFD) framework.

- **Example buyers:** corporates looking to meet nature positive targets
- **Despite interest, demand remains limited**

Habitat Specific Codes

Payments for a range of bundled environmental and societal benefits derived from a specific habitat / intervention e.g. Woodland Water Code.

- **Methodologies in development**

Water Quality

Payments for improvements in water quality, usually targeted upstream of areas of high environmental value e.g. bathing waters, water-based Sites of Special Scientific Interest (SSSIs) or drinking water sources.

- **Example buyers:** water companies, local councils
- **Despite interest, demand remains limited**

Understanding Buyers: Motivations for Purchasing Ecosystem Services

Three motivating purposes drive buyer behaviour: **business outcomes**, **reputation** and **compliance**. Drivers relating to business outcomes and reputation in voluntary markets are currently insufficient to achieve the desired scale of private finance to meet the Government's environmental targets.

Business Outcomes

- Cost reductions: Funding nature-based projects can help companies meet their own business objectives, potentially in a more cost-effective manner than with non-nature solutions (e.g. water companies can pay farmers to reduce their fertiliser use, which reduces their need to remove nutrients from the water using hard engineered solutions).
- Risk reduction/resilient supply chains/price premiums: Food retailers are increasingly supporting their suppliers transition to more regenerative farming to build resilience in their supply chains from climate and other risks, as well as differentiate their product to consumers to charge premium prices.

Reputation

- Investor reputation: Corporate performance in context of reassuring investors (typically large, publicly listed companies who have made Net Zero commitments and are considering Taskforce on Nature-related Financial Disclosures (TNFD) and Science Based Targets Network (SBTN) approaches).
- Public reputation: General Corporate Social Responsibility (CSR) performance in context of reassuring employees and customers (any organisation).

Compliance

- Statutory compliance: For instance, developments where planning permission is subject to demonstrating BNG and/or Nutrient Neutrality, or where compliance with Water Quality Permit Conditions apply.
- Regulator-required compliance: Utility companies subject to independent economic regulation have their prices and budgets set by their regulator (e.g. OFWAT, ORR or OFGEM) based on delivering a formal customer performance commitment.

Buyer Preferences and Willingness to Pay

The overall cost of the project or product purchased was highlighted as the most important factor for buyers. Key project elements to increase buyer interest and willingness to pay include:

Delivery of Multiple Benefits

- Projects with a range of benefits that align with businesses' social and environmental goals
- Helps justify the purchase and "sell the story" to decision-makers.
- E.g. biodiversity, natural flood management, access to green space, recreational use, job creation and volunteering.

Quantified Outcomes

- Important for business decision-makers.
- Links project outcomes to targets and reporting processes.
- Demonstrates impact to a customer base.
- Quantification of benefits are often more impressive sounding than just the funding.

Marketing Material

- Ability to showcase the project for reputational purposes.
- Site visits, volunteering and photo opportunities can facilitate this.

Credibility

- Buyers are concerned about reputational risk / greenwashing accusations.
- Evidence of a strong track record, clear project governance and a robust management and monitoring plan can help assure buyers of credibility to deliver long term outcomes.

Clear Additionality

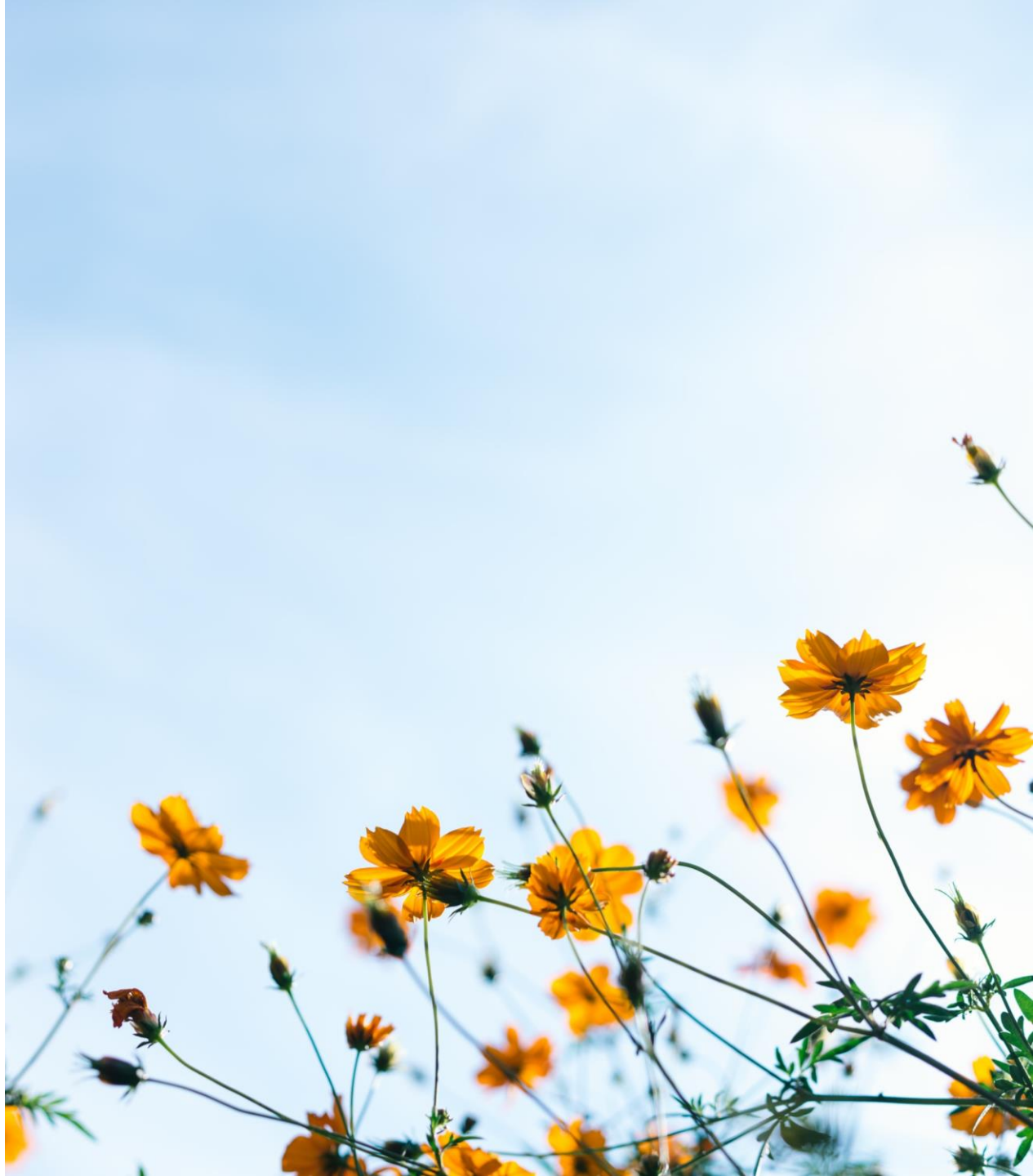
- Buyers want to be assured that what they are purchasing is additional and permanent. Evidencing steps taken to ensure this helps buyers justify the funding to their stakeholders.

Links to Business Objectives

- Projects with outcomes linked to business objectives i.e. cost savings, improved reputation and increased staff satisfaction.

Aligning Ecosystem Services with Buyer Needs

- Suppliers of ecosystem services need to identify beneficiaries of their project and translate the environmental benefits of interventions into benefits for buyers.
- To help bridge this language divide, suppliers should consider who in their geographical area is exposed to risk, what problems they are trying to solve and who is seeking opportunities.
- For instance, buyers and funders may be looking to make their business more resilient, meet legislative requirements, achieve better health outcomes, boost the local economy or secure investment and growth.
- **The following table presents an example of mapping project benefits against potential buyers. The highlighted column presents benefits from a buyer's perspective.**



Project idea/element	Tangible Benefits		Beneficiary									
	Environmental Perspective	Buyer perspective	Local business	Water company	Transport body	Insurance	Developer	Local authority	Flood risk authority	Public health	Tourism	EA
Prevention: Natural Flood Management (NFM)	• Reduced risk of flooding	• Avoided business expense / loss of earnings from reduced productivity due to flooding. • Avoided reparation costs. • Lower insurance premiums. • Avoided costs and health impacts for local residents.	✓	✓	✓	✓		✓	✓	✓		✓
Restoration: Habitat improvement e.g. Invasive Non-Native Species (INNS) removal, woodland management	• Habitat improvement • Biodiversity improvement INNS are reduced	• Carbon credits • Biodiversity Units • Improved visual amenity and local working environment (staff recruitment and retention) • Meeting environmental and social objectives / reputation enhancement	✓	✓	✓		✓	✓			✓	
Restoration: Footpath improvement or creation	• Footpath improvement • Recreational access	• Improved visual amenity and local working environment (staff recruitment and retention) • Meeting environmental and social objectives / reputation enhancement • Green social prescribing	✓					✓		✓	✓	
Community engagement through citizen science e.g. River Guardians	• Community engagement • Training of local community	• Access to skilled workers • Improved employability and mental wellbeing of local communities	✓					✓		✓		
Creation: Creation of new habitats, including to improve habitat connectivity	• Habitat creation • Biodiversity improvement	• Biodiversity units • Improved visual amenity and local working environment (staff recruitment and retention)	✓	✓	✓		✓	✓			✓	

Supporting the Development of Nature Markets

This project has highlighted several key challenges faced by buyers. Barriers and potential support which could help address them are presented below. The solutions are not exhaustive but draw upon the stakeholder engagement findings in this research as well as our own wider knowledge of the market.

Policy uncertainty

- Strong, clear and decisive policy direction from Government regarding nature markets. E.g. clear rules and regulation around stacking and bundling.
- Good practice guidelines for nature market buyers, reviewed and revised periodically.

Market uncertainty

- Introduce market infrastructure, such as registries to increase transparency.
- For example, a central register of projects seeking funding.
- Clear guidance on environmental claims e.g. carbon neutral, net zero and nature positive.
- Extend existing standards to a wider range of ecosystem services to increase buyer confidence.
- Upskill potential buyers in nature related issues, environmental literacy and around the benefits of purchasing ecosystem services.

Uncertainty around measuring outcomes and fear of greenwashing

- Fast-track Government research into metrics and measurements for ecosystem services.
- NEIRF and the GFI for instance already present a bank of knowledge around nature-based projects.

Limitations in supply

- Promote evidence/knowledge sharing around supplier aggregation models.
- Introduce premium pricing or similar incentive for projects which are connected/landscape scale.
- Introduce insurance or 'buffer pools' for ecosystem service projects to mitigate delivery risk.

Lack of level playing field/fear of being a 'first mover'

- Mandate TNFD reporting to create a more level playing field for businesses or provide (financial) incentives for first mover businesses.

Evidence Gaps

This project has highlighted four key evidence gaps/topics. The list is not comprehensive; rather, it indicates areas of interest or limited information which commonly emerged from the findings.

1. **Understanding senior decision-makers and in particular how to present business cases for ecosystem service purchases**: greater understanding is needed around the type of data and information senior decision-makers in businesses to purchase or invest in ecosystem services.
2. **A deeper dive into voluntary biodiversity:** a deeper dive into this market to understand whether it is likely to follow the same path as carbon.
3. **Extent of alignment with local/national nature strategies:** the extent to which nature markets align with, and fulfil, local and national environmental strategies remains uncertain.
4. **There is limited data on actual trades, both successful and unsuccessful:** nature markets are competitive and buyers/sellers are not always transparent about prices. This information may remain limited going forward unless incentivised or mandated.

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Recommendations

Recommendations

Recommendations to increase the impact of this project are presented below and include actions for both the Forestry Commission/Environment Agency and Defra/Government.

Recommendation	Detail
For the Forestry Commission/Environment Agency	
Disseminate findings to help build wider understanding	• Build knowledge among the public, private and third sector organisations to drive the sector forward and facilitate greater investment in nature recovery. Knowledge could also be shared through workshops and training and with local nature partnerships who have already or are looking to attract funding from buyers.
Develop a "Buyers Guide" to address a need commonly identified	• Consolidate findings of the report into a guide which would help local partnerships to find interested buyers and best market their ecosystem service offerings to attract funding. • Develop case studies specifically focused on organisations who have engaged with voluntary nature markets to highlight the direct and indirect impacts their organisation has benefited from as a result (e.g. cost/risk reductions, resilient supply chains/price premiums, reputation – see slide 60) to use to attract further buyers.
For Government/Defra	
Implement policies to stimulate demand	• Review policy levers that have been used in the development of carbon removal technologies and renewable energy technology to learn from successful practice. Carbon contracts for difference for instance, guaranteed a floor price for sellers, while solar energy subsidies encouraged implementation. • Consider mandating TNFD, SBTN or Target 15 of the Global Biodiversity Framework. This would help level the policy playing field for the private sector. Consider creating similar requirements or frameworks for public authorities, similar to Green Public Procurement programmes. • Provide guidance for, and examples of, a nature positive strategy for businesses. In particular, consider the challenges faced by small and medium-sized enterprises (SMEs) in both compliance and voluntary nature markets. According to ONS data, SMEs made up 99.9% of the UK private sector in 2023. While large businesses (0.1% of the business population) may be first-movers, barriers to market entry should be reduced for SMEs. • Consider the benefits and risks of extending BNG into 'environmental net gain'. • Review the use and application of the BSI Nature Investment Standards Hub. • Consider lessons learnt from mandatory markets (BNG and Nutrient Neutrality) for the development of voluntary markets, particularly with respect to contracts and the distribution of liabilities.

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About Eunomia

Eunomia is an independent sustainability consultancy driven by a genuine passion to make a positive change to the clients we work with and the communities they operate in. Founded in 2001, we have been pioneers in the sector - early advocates for helping NGOs as well as leading public and private sector organisations in the UK and overseas to adapt their approach and adopt more sustainable processes.

Our consultants are experts in the field, deeply immersed in the subject with the technical knowledge and skill to offer clients innovative, clear and practical recommendations. We are committed to finding solutions to better protect the planet, while supporting the wider aims and needs of our clients.

Each client is treated as an individual, with consultants taking the time to understand their objectives and how best we can support them. This personal service ensures a strong relationship is forged, based on honest and regular communication. It also ensures if these objectives change, there is the flexibility to adapt.

As an established leading independent consultancy, clients can have complete confidence that consultants will offer evidence-led solutions based on robust, impartial thinking that offer both pragmatic and positive outcomes.