NATURE FINANCE REVIEW

2023

ECOSYSTEMS KNOWLEDGE NETWORK
AN INAUGURAL REVIEW OF THE UK'S PROJECT PIPELINE

Authors and acknowledgements

Ecosystems Knowledge Network

NATURE FINANCE UK
REVIEW 2023

Contact	ecosystemsknowledge.net info@ecosystemsknowledge.net 0333 240 6990 Isis Innovation Centre, Howbery Park, Wallingford, OX10 8BA
Authors	Stephen Le Fanu Henry Crabb Bruce Howard
Contributing Authors	Francesca Boyd Matt Whitney
Funded by	Esmée Fairbairn Foundation
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About Ecosystems Knowledge Network	An independent and impartial knowledge sharing network. Our job is to help people harness the value of the natural environment for everyone's wellbeing and prosperity. We support professionals in all sectors, whether or not the environment is the primary focus of their work.

"The opportunity of nature finance for our family farms lies in its ability to fairly and truly reward farmers for the ecosystem services they provide."

Teleri Fielden, Policy Officer, Farmers' Union of Wales. Beef and sheep tenant farmer in Eryri (Snowdonia)

"In order to ensure the success and uptake of nature finance by farmers, family farms in Wales need to see examples of how it has worked for other businesses similar to their own. Questions abound about the liabilities involved, the legalities, the permanence of various land management options and the figures on offer. Only then can future business and land management decisions be made.

"The opportunity of nature finance for our family farms lies in its ability to fairly and truly reward farmers for the ecosystem services they provide, in a more flexible manner. Nature finance for most farmers has historically been in the form of less than 'income foregone' payments, or capital contributions to costs incurred. Furthermore, it would appear that Government funding allocated to agricultural budgets and environmental enhancements does not reflect the scale or ambition we hear in the rhetoric.

"Nature finance must ensure it works with 'active' land management, continued food production, existing ownership, for tenants, and in conjunction with Government funding. Furthemore, it must respect and reflect the local knowledge and generational experience which will be so crucial in adapting to climate change and ensuring increased biodiversity."

"A sound policy framework and agreed standards and verification metrics are as crucial to the development of the market as capital."

Whitni Thomas, Head of Corporate Finance, Triodos Bank UK

Whitni leads Triodos Bank's advisory team that works with impact driven organisations to help them access capital directly from investors. Triodos have been actively developing new business models with environmental organisations to catalyse investment in nature-based solutions.

"Biodiversity and nature positive have become the latest buzzwords in finance circles. It's a relief for those who've been sounding the alarm for some time on the threat of nature collapse, but is there substance behind the hype? This first Nature Finance Review suggests there is. Hundreds of projects across England, Wales and Scotland are seeking to restore nature in a way that can be scaled and demonstrating that financially sustainable business models centred around the delivery of ecosystem services can be achieved.

"While the focus of some policymakers in the last couple of years has been on the financing gap for nature, these projects on the ground are telling us that developing revenue streams is the biggest challenge. A sound policy framework and agreed standards and verification metrics are as crucial to the development of the market as capital. Not all of these projects will require external investment as some buyers will effectively fund development costs through advance purchases. So while it is important to ensure that capital is available for the projects that require it, the requirements of capital providers shouldn't dictate the development of the market. Finance should serve the needs of the real economy and society as a whole and that includes nature."

Ruchir Shah, Director of External Affairs, Scottish Wildlife Trust, and co-founder of the Scottish Nature Finance Pioneers

"Our initiatives must be ecologically sound and socially inclusive."

"As we dive headfirst through 2023, the Nature Finance Review gives us a moment to pause and take stock of our progress. Grounded in the rich data from 219 individual projects and insights from 54 consultees, the domain of nature finance, bolstered by a dynamic project pipeline, is not merely an emerging field, but an absolutely essential one. This journey is more than a dialogue about planting trees; it's about acknowledging and valuing the intricate tapestry of our ecosystems on land and sea.

"Measurement is at the heart of our endeavours. 'What gets measured, gets managed' holds as true here as anywhere. Our journey in nature finance needs precise metrics to gauge our progress, refine our strategies, and navigate towards high-integrity environmental markets. The challenge of 'revenue uncertainty', underlined by many projects, makes this task ever more critical.

"The investment side has experienced a whirlwind of transformation. More companies are realising their environmental footprint and seem eager to address it, taking us beyond the 'Environmental, Social, and Governance' checkbox to active participation in environmental markets.

"Community engagement emerges as a cornerstone for our future. Our initiatives must be ecologically sound and socially inclusive. The communities that live in and interact with these environments must be integral to both the conversation and the solution. Addressing concerns around policy requirements, pace of change, market volatility, lack of investment readiness support, and local objections/reservations will be key.

"In spite of emerging concerns around lack of data and regulatory uncertainty, we must remain committed to leveraging the potential of nature finance to help tackle the nature crisis, a future where true sustainability drives markets. 2023-4 promises to be a pivotal year for nature finance on these Islands, showcasing the potential of financing nature-based solutions and the challenges that lie ahead."

Susan Twining, Chief Land Use Policy Adviser, Country Land and Business Association representing owners of rural land, property and business across England and Wales.

"What landowners need is clarity on the market operation, economically viable options and inspiration for what is possible, and these are starting to align.."

"There is a strong interest in nature projects amongst farmers and land managers. Many are now operating collectively to build their market knowledge, offer single point access to buyers, and deliver the scale needed. The interest is driven in part by the changing government agricultural policy that is reshaping farm and land economics. But it is the growing realization that nature markets offer a viable business opportunity that is changing it to a mainstream activity.

"Nature markets are not for everyone. Some are very location dependent, the long term contracts can be challenging particularly for tenanted land, and the changes in management often need new skills and equipment. And as with any other market there are government regulations to follow and market codes to adhere to.

"The good news is that the government has recognized their role to ensure the nature markets operate well, and this will drive greater confidence for buyers and sellers. For landowners the main areas for government input relate to the tax treatment of environmental income and land use, market rules for different income streams from the same land, and cost-effective and reliable data for verification.

"This report shows an increasing number of operational nature projects that will serve to inspire more projects, and help build knowledge, capacity and confidence along the environmental supply chain."

Robert Hall, Director of Earth Systems Impact Investment at Federated Hermes

"...a broad-based consensus is emerging on the importance of integrity, and social impact and regional equity."

"This year we have seen a significant increase in the number of entities entering the UK's 'market' for nature restoration and conservation finance, across both the private and public sector. Working across this 'market' in full, and interacting with its public and private, local and national stakeholders, it is pleasing to see that a broad-based consensus is emerging on the importance of integrity, and social impact and regional equity.

"In the coming year, it will be interesting to see how the concept of 'community' is defined by this distributed marketplace of actors seeking to exert influence, and it will be interesting to see how the UK's rapidly growing market for nature- and biodiversity-led approaches to land management responds to the prominence of increasing media scrutiny on the voluntary carbon markets, and soon voluntary biodiversity markets, which drive this emergent land management practice.

"I anticipate that more heat may be generated before light will begin to emerge, given the number of actors and the importance of this conversation: the natural world is something we all inhabit and share, and whilst it may at times be frustrating for those that seek to move fast and break things, it is important that the national and international debate over the role of nature and the use of land is one which demonstrates a participatory approach, allowing everyone to be heard. This will take as long as it takes, but is an interesting and I think positive feature of a new kind of participatory and equitable marketplace.

"More narrowly, in the year to come we hope to continue to build relationships across the market for ecosystem services, and to have the opportunity to build long-term local partnerships built around shared equity rather than extraction, to work with existing local stakeholders rather than seek to displace them, and to add to the resilience of the regions in which we seek to provide financing to biodiversity-enhancing, science-based projects, in the places in which they are appropriate."

William Hawes, Head of Nature-based Solutions, National Parks Partnerships

"Greater transparency of transactions would increase confidence."

William is a land manager, specialising in natural capital. He's involved in the design and delivery of landscape scale NbS projects through Revere, a partnership between the UK National Parks and Palladium, catalysing private investment into nature at scale.

"I often hear that ecosystem service markets are volatile. They're not, there's huge demand relative to the volume of supply, which is driving values, but they are new, which creates concerns over certainty, and there are real barriers to the development and scaling of projects and to the deployment of private investment into nature.

"The results of EKN's report reinforce the supply-side's need for more certainty on future income. Improved income certainty would both stimulate the development of the project pipeline while increasing the level investment flowing into nature restoration. We need an enabling policy environment for nature projects that provides higher levels of income certainty and crowds in private investment by transitioning to a payment for outcomes approach. Greater transparency of transactions would increase confidence.

"Farmers and managers of privately owned land have the knowledge and skills required to restore nature and mitigate the climate crisis at massive scale and want to be part of the solution. Some already are, in fact some are our pioneers in making a viable business of ecological restoration. But, of the respondents to this report, only 18% were from these groups, which reflects a lack of engagement with and understanding of nature finance. Farmers and land managers should be engaged earlier and lead on the design of projects to create opportunities which are better aligned to the objectives and needs of their businesses.

"The potential positive impact of the financial sector in responding to our nature and climate crisis is huge. It's vital for the development of the sector that we have good data to illustrate what's working and what's not. EKN's report shines a light on the barriers that we need to collectively overcome, but also demonstrates the enthusiasm and level of effort being put into solving those problems."

Contents

**available to download separately at ecosystemsknowledge.net*

Glossary

For a full Nature Finance glossary, please visit the **Nature Finance Learning Hub**.

Additionality	A real increase in social or environmental value that would not have occurred in the absence of the intervention being carried out.
Biodiversity Net Gain (BNG)	An approach to development, and/or land management which mandates developers to deliver measurable improvements for biodiversity by creating or enhancing habitats in association with development. Biodiversity net gain can be achieved on-site, off-site or through a combination of on-site and off-site measures. In England, a 10% mandatory BNG, will be mandatory for most developments from November 2023.
Biodiversity Unit	A unit of biodiversity, calculated by a qualified ecologist using a biodiversity impact assessment tool, for example Defra's Biodiversity Metric.
Carbon Credit	A product that can be bought representing either the permanent removal of a tonne of carbon dioxide equivalent (CO_2e) from the atmosphere (e.g. through woodland or peatland creation) or the avoidance of one tonne of CO_2e being emitted in the first place.
Environmental Market	The system by which trading of ecosystem services takes place.
FIRNS (the Facility for Investment Ready Nature in Scotland)	A grant scheme from the Scottish Government and NatureScot to support projects that shape and grow the use of private investment and market-based mechanisms to finance the restoration of Scotland's nature. FIRNS is a successor to the earlier grant programme, IRNS.
Intermediary	Any organisation that supports the relationship between a seller, a buyer or an investor. It could be by setting standards, the provision of monitoring and verification, or enabling buyers and sellers to find each other.
Insetting	Organisations offsetting harm caused by their own operations (e.g. greenhouse gas emissions or biodiversity loss) through interventions in their own value chains.
Investment Readiness	The process of becoming ready to participate in nature finance (which may or may not result in investment).
Land manager	Any entity (individual or organisation) that administers, directs, oversees, or controls the use of public or private land.
Natural Capital Accounting	The measuring and quantifying of environmental assets and services, i.e. the habitats and ecosystems that provide social, environmental and economic benefits to people.
Natural Capital Investment	See nature finance. (Note that the term "investment" is often used even if the primary focus is the trading that occurs in nature markets.)
Natural Flood Management	The intentional use of natural features such as vegetation or landform to slow the flow of water from land in order to reduce flood risk.
Nature Finance	The part of green finance that specifically finances or invests in improvements to the natural environment. It is based on the trading that occurs through nature markets.
Nature finance project	A project that is utilising nature finance (including the sale of ecosystem service credits) to deliver improvements to the condition of land, water or nature.
Nature markets	Nature markets are the sale and purchase of ecosystem services (ways that the natural environment supports wellbeing and prosperity).
NEIRF (the Natural Environment Investment Readiness Fund)	A grant scheme run by the Environment Agency for projects in England which improve the natural environment, have the ability to produce revenue streams from ecosystem services and can produce an investment model that can be scaled and reproduced.
Nutrient Neutrality	A policy devised by Natural England to mitigate additional nutrient pollution from new developments. The development achieves nutrient neutrality when the nutrient load created through additional wastewater (including surface water) from the development is mitigated.
Offsetting	Actions taken to mitigate carbon emissions, nutrient pollution, biodiversity loss or other harm.
Outcomes payments	Payments made to the investor who has provided upfront investment in a project, with payments dependent on the project meeting pre-agreed environmental outcomes.
Payments for ecosystem services	Schemes through which the beneficiaries, or users, of ecosystem services provide payment to the stewards, or providers of those services.
Revenue	The money generated from business activities. Analogous to gross income.
Stacking	When multiple different ecosystem services produced by the same activities (for example biodiversity and carbon benefits of a new woodland) are sold as separate units in the market.
Supplier	Those producing and selling units of ecosystem services on the land or coastal areas they manage, for example through nature restoration projects or sustainable land management practices.

Executive Summary

Nature finance refers to the trading of ecosystem services, together with the investments that are sometimes required to enable this trading to take place. In the UK, nature finance is a fast-growing area of financial innovation and green (and blue) enterprise. It is integral to the achievement of net zero in the UK and to improved stewardship of land and water. It is central to resourcing a climate-resilient and nature-rich environment that meets the needs of business and wider society.

A prerequisite for nature finance is the supply of sufficient quality and quantity of projects, together with aggregation of them in ways meaningful to buyers and investors. From seagrass to street trees, these projects take place in diverse environmental and social settings. They include the restoration of peatland to reduce emissions of greenhouse gas emissions to the planting of woodland to remove carbon dioxide from the atmosphere and reduce local flood risk.

Over the course of six months, Ecosystems Knowledge Network, an independent forum serving England, Scotland, Wales and Northern Ireland, conducted a review of the pipeline of nature finance projects in the UK. This was based on a widely-promoted voluntary online survey as well as online focus groups and other engagement with groups developing projects. The survey was designed for representatives of projects that would be able to place themselves confidently on one or more of the steps identified in the Investment Readiness Toolkit produced by the Green Finance Institute.

Data from 219 projects were included in the review, including 177 place-based (sub-regional) projects and 42 projects designed to enable recipients and providers of nature finance to interact. These data were interpreted using insight from 54 consultees, as well as the Ecosystems Knowledge Network's perspective as a leading forum for sharing innovation and expertise in nature finance in the UK.

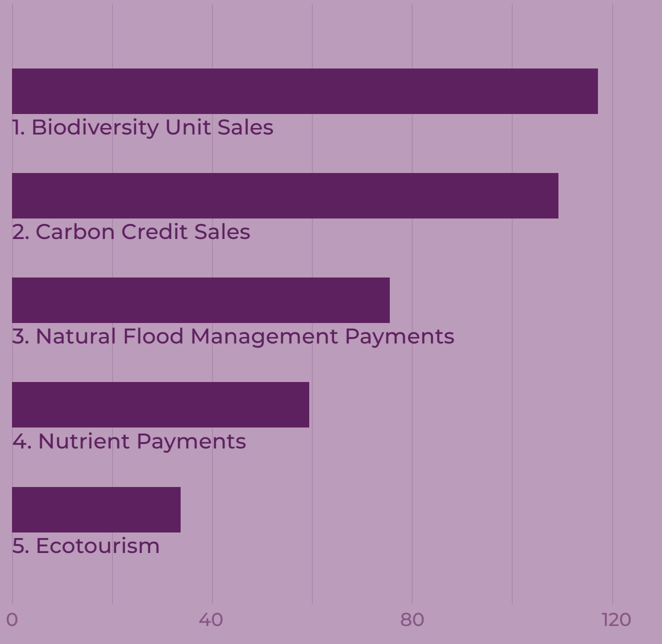
The data show that, while the pipeline of nature finance projects in the UK remains in its infancy, it is emerging as an important aspect of green (and blue) enterprise and entrepreneurial endeavour. The current mix of projects is disparate; delivered by entities ranging from large private estates to local government organisations and small community groups. It is currently dominated by projects in rural settings in England, which is where most of the revenue generation is occurring. For many private land managers, the opportunity cost of allocating time and other resources to the pursuit of nature finance is too great.

The survey findings included:

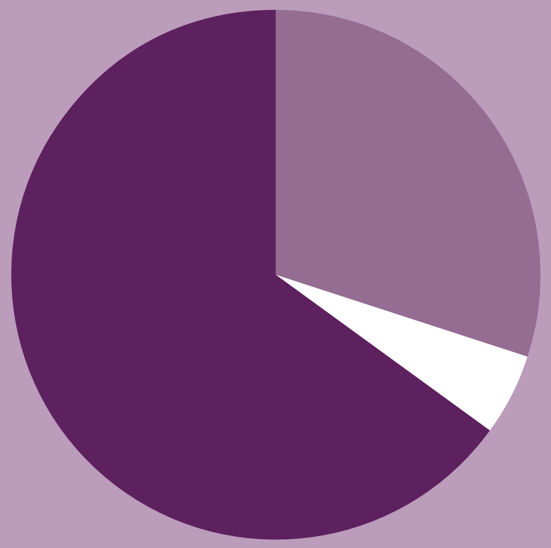
- 21% of the project pipeline said that they were generating revenue, not including projects receiving investment readiness support, for which only partial data were available.
- The five most common revenue streams being pursued are sales of biodiversity units (66% of projects), carbon credits (61% of projects), payments for water management (42%), payments for reductions in the loss of nutrients beyond regulatory requirements (33%), and ecotourism (19%).
- The five most common habitats reported were grassland, woodland, wetland, rivers and lakes, and heathland and scrub. 92% of projects involved at least one of

A. MOST COMMON REVENUE STREAMS

The five most common revenue streams being pursued.



B. PROJECT STATUS



Initial Research Phase (30%)
Stalled (5%)
Ongoing (65%)

these habitats. One third of all projects involved cropland (33%). A relatively small proportion of projects relate to urban habitat (16%) and marine areas (20%).

Wales and Northern Ireland need to follow the lead of Scotland by setting strategies for the types of nature finance they wish encourage within their land and marine areas. These strategies need to signal the types of buyers and providers of finance that will fit with the prevailing values and needs of their people. Across the UK, there is a pressing need for clarity on how new forms of agri-environment support will intersect with income through private finance.

At present, the priority for nature finance projects is overcoming barriers to the sale of ecosystem services, rather than how to attract repayable finance. Revenue uncertainty - due to the absence of sufficiently-detailed market rules and understanding of demand - is key. There is a need to support smaller land managers in their participation in nature markets because they are less able to respond to 'investment readiness' funding opportunities.

Clear communication of 'portfolios' of nature finance projects to potential buyers in nature markets is now paramount. The social benefits of nature finance and delivery risks need to be quantified and included in these portfolios alongside the environmental credentials of projects. This annual review of the project pipeline will play an important part in this.

Nature finance involves the development of relationships between people and organisations who have not done business together before. Sometimes these are local, as in the case of community banking, community enterprises and the formation of farm clusters. It also has the potential to connect financial institutions and large corporates with relatively small enterprises and the local communities in which they operate. Based on the insight gained through this review, these largely untested relationships present risk and opportunity in equal measure.

24%

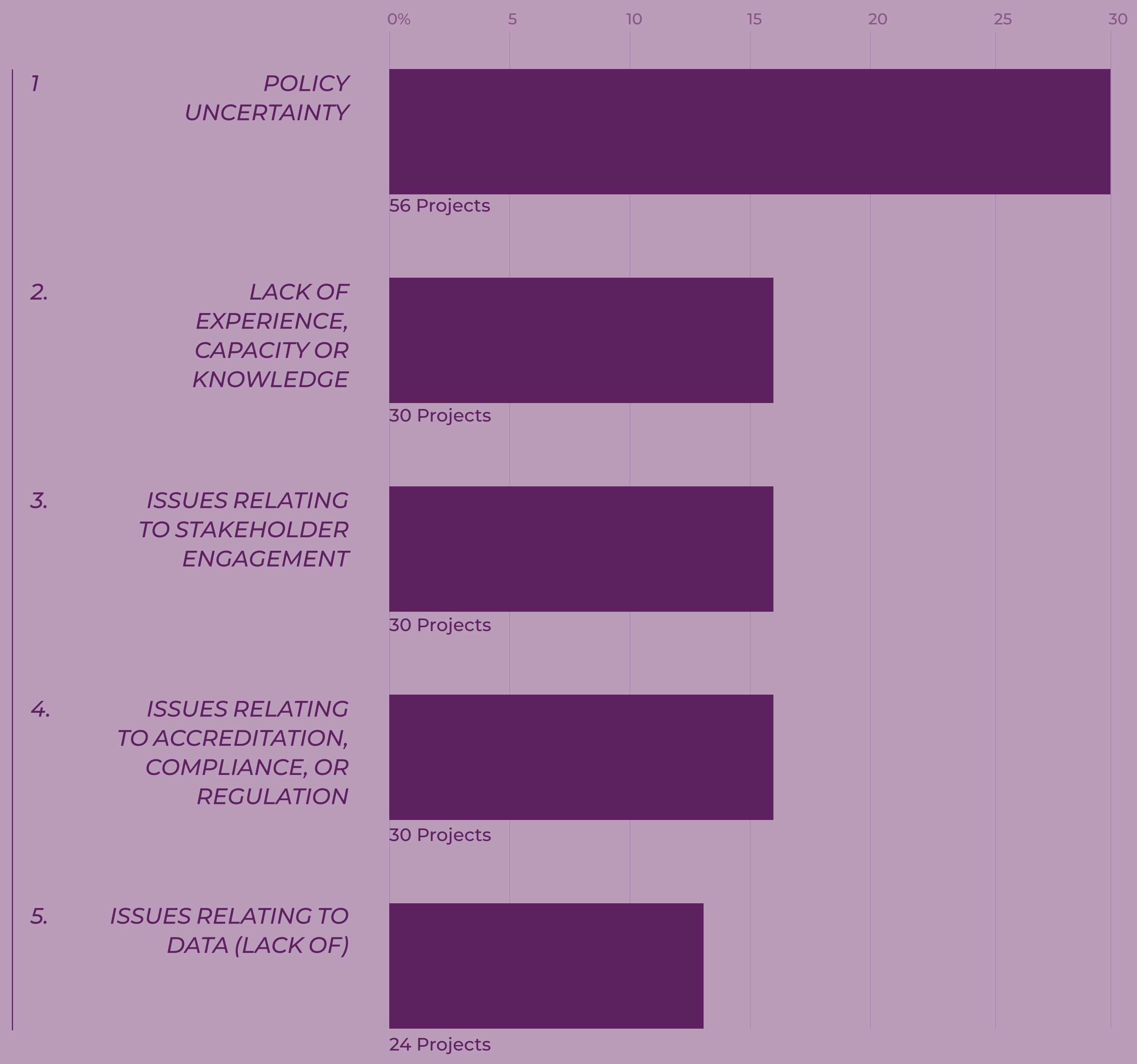
of projects generating revenue *(of which 16% are seeking and 12% have secured repayable finance).*

45%

not currently generating revenue*, but expect to do so within the next 5 years.*

C. CHALLENGES

The top 5 themes extracted from 187 project comments.



1

INTRODUCTION

Brockenhurst, Hampshire UK
Photographed by **Robert Bye**
Published on **November 12, 2018**

THE RISE OF NATURE FINANCE

From the restoration of marine habitat to the planting of woodland, environmental improvement delivers outcomes that are valued by business and wider society in many ways. These outcomes include the removal of carbon dioxide from the atmosphere into trees, soils and the seabed, the creation of units of biodiversity-rich habitat, improved water quality, and local reductions in flood risk. They fulfil the growing ambitions of people and organisations to achieve net zero, to reduce climate-related risks and to achieve positive outcomes for nature.

The term 'nature finance' refers to opportunities for those directly responsible for looking after land, water and nature to receive private money in return for delivering these outcomes. It also refers to the repayable finance and investment that owners and managers of land may require to deliver the enterprises and projects that underpin these outcomes. Nature finance is a vital dimension of the 'financing green' pillar of HM Government's Green Finance Strategy, and the environmental goals of government throughout England, Scotland, Wales and Northern Ireland.

REASONS FOR THIS REVIEW

Over the last five years, there has been a surge in interest in the projects that can deliver outcomes through environmental improvement. This interest is driven by anticipated demand due to activities such as the Taskforce on Nature-related Financial Disclosures. It is also driven by a realisation that traditional sources of environmental funding are not sufficient for any nation to meet its needs and goals for nature and climate.

Alongside greater recognition of the value of environmental restoration projects, there has also been growing interest in opportunities for investment in these projects and the businesses that deliver them. Government and forward-thinking funders such as the Esmée Fairbairn Foundation have begun to support investment readiness. Despite this activity, there has been very little effort to appraise the growth of projects engaged in nature finance. This means that it is difficult for funders to know what to support, as well as prospective buyers to assess the maturity of these projects collectively. The only previous UK-level report on this 'project pipeline' was a one-off study commissioned by the Esmée Fairbairn Foundation in 2020[1].

Due to the lack of systematic appraisal of the nature finance project pipeline, Ecosystems Knowledge Network, a leading UK-wide independent knowledge hub, has initiated this inaugural annual review of the UK nature finance project pipeline. The review has been designed to provide a UK-wide overview of the challenges and opportunities associated with this area of enterprise and 'green' and 'blue' investment. It is designed to help projects and those wishing to support them. The expectation is that it will be repeated annually, providing insight into trends in this emergent and vital aspect of green finance, impact investment, green enterprise and nature recovery.

As far as we are aware, this is the first comprehensive review of the pipeline for nature finance investment.

SCOPE OF THIS REVIEW

This report is not intended to be a definitive listing of every project that could be considered as seeking – or having received – nature finance in the UK. Many projects are represented on registers of carbon purchases but the sellers are not willing or able to share further information. Other projects, such as the pioneering work of some water utilities in the UK to pay farmers to deliver water quality improvements, are now considered routine.

This review is intended to gather the projects seeking to identify themselves and which are receiving money from private sources to deliver environmental outcomes, as opposed to merely receiving corporate responsibility or private donations where there is no buyer-seller or investor-investee relationship.

SCOTLAND *PHOTOGRAPHED BY* **ALEX LVRS** *PUBLISHED ON* **AUGUST 17, 2021**

NOTES

1. Emerging funding opportunities for the natural environment Report. Environmental Finance Ltd in partnership with Ecosystems Knowledge Network.

2

© istockphoto.com/
SAKhanPhotography
Landscape in
North West England

METHOD

OVERVIEW

The review was based on an online survey that was widely publicised online. Anonymised data representing the two principal investment readiness support schemes active at the time[1] were combined with the public survey data. Additional project data were received from the Environment Agency that were incorporated with the survey responses. The insight provided by responses to the online survey was supplemented by consultation with stakeholders from environmental groups, solutions providers, local authorities, and the farming sector. These consultations took place among four online focus groups, a meeting of the Natural Capital Investment Community of Practice, a series of three workshops that took place across Wales, as well as a series of conversations and interviews over the last six months.

The survey took an average of 15 minutes for participants to complete. It was designed to encourage representatives of the projects to identify themselves and to share core information about their plans and their achievements. A balance was struck between achieving a decent level of detail and a high level of participation and completion.

SURVEY DESIGN

The survey was designed for projects that would be able to place themselves confidently on one or more of the steps identified in the Investment Readiness Toolkit produced[2] by the Green Finance Institute. All projects included needed to meet the following four criteria:

01. Generating revenue from the delivery of ecosystem service credits, or committing time and other business resources into making this happen
02. Pursuing a new business model, as opposed to purely the acquisition of land on the basis that its environmental value (and therefore sale price) might increase.
03. Undertaking more than conventional good practice in environmental management[3].
04. Sufficient information that the project represented a relevant project (for instance a lead organisation that could be contacted, website available with further information).

While the priority was to identify projects that relate to specific areas of land or water within the UK (such as an estate, county or designated landscape), we included those that were working on the infrastructure required for nature markets. This included, for example, those working on new codes and standards.

The survey[4] was carried out online and was designed to elucidate the following information:

- Types of organisations taking part in the Review, the activities they were involved in, and their relationship with the projects;
- The location, area and habitat composition of the projects;
- The status of projects, and the milestones, enablers and barriers they encountered;
- The costs, opportunities, relationships and processes involved in generating revenue as part of a project; and
- The funding sources being utilised or considered by projects, including types of repayable finance and grant funding.

SURVEY PUBLICITY

Marketing and communications specialists were commissioned to help ensure that the survey was publicised among a wide variety of priority audiences. The priority groups were as follows:

- Land managers, including farmers and estate managers;
- Environmental consultants;
- Local authorities;
- Nature conservation and other environmental groups;
- Intermediaries in nature markets (carbon, biodiversity, nutrient loss and flood risk); and
- Funders and financiers of projects.

The survey was promoted as follows:

- A social media campaign, including paid, targeted advertising;
- Features in EKN's monthly e-news mailing over three months[5];
- Features in EKN's monthly Nature Finance Roundup mailings, received by the Nature Finance Learning Group[6];
- Targeted emails of contacts within EKN's wider network (beyond its membership);
- Contact with groups of organisations representing potential projects, such as Local Nature Partnerships (in England) and the Wildlife Trusts;
- Engagement with organisations that are engaged with, or have been engaged with, projects related to this review through ongoing and previous work, such as Finance Earth (whom co-produced the Emerging Funding Opportunities for the Natural Environment in 2020) and Defra (whom have issued grants to projects from a cohort of applicants); and
- Contact with membership organisations to disseminate amongst members, such as the CLA, Local Government Association, the National Association of Areas of Outstanding Natural Beauty.

FIGURE 1.

Types of nature finance projects included within the Review

Seeking to understand nature finance and what it might means for their organisation or sector	Place-based projects		Creating the infrastructure required for nature markets
	Taking steps towards attracting revenue	Participating in nature finance	

CONSULTATION

In order to collect more in-depth insight on the project pipeline, a series of consultations were held with stakeholders reflecting the wide-range of expertise, interest and engagement in nature finance across the UK. These comprised a series of focus groups, interviews, workshops, and an online event designed for those engaged directly with nature finance.

Invitations to focus groups were issued to all survey respondents, in addition to other stakeholders known to EKN through its Nature Finance Learning Group, which contains over 400 members of professionals engaged with nature finance, and its wider membership of over 3000 professionals UK-wide, half of whom are directly involved in the stewardship of land, water and nature. Invitations

NOTES

1. All 86 Natural Environment Investment Readiness Fund (England) grants and 6 out of 7 Investment Ready Nature Scotland grants
2. Available at Green Finance Institute's website.
3. Conventional business activities were considered as those for which the receipt of money by those involved in the project was not conditional on the delivery of measurable environmental improvement. This included:
(a) the production of food, fibre or timber using only national-level sustainability or environmental protection measures and
(b) the sale of tourism, leisure or recreation opportunities where the condition of the environment was merely part of marketing and did not directly contribute to environmental improvement.
Examples of projects that were excluded are: a holiday rental business in a landscape of scenic value, or an environmental remediation business.
4. The full set of survey questions is available in the appendices
5. EKN's e-news is received by 3,000 professionals UK-wide, covering the public, private, third and academic sectors. Over half of EKN's members are directly involved in the stewardship of land, water and nature. Find out more at ecosystemsknowledge.net
6. The Nature Finance Roundup is received by members of EKN's Nature Finance Learning Group, which contains over 400 professionals engaged with nature finance

were also made to relevant stakeholders from EKN's extended network, such as through the Scottish Nature Finance Pioneers[7] and the Defra's NEIRF project community of practice.

To gain a wider range of views and data, we invited those who could not attend to have a 1:1 interview or provide written responses. Each focus group was designed to gather the views of distinct groups, using a set of questions to structure discussions[8].

01. Farmers and rural advisors - including professional bodies and other agricultural representatives. One focus group was held with seven attendees, in addition to two 1:1 phone conversations
02. Solutions providers - including standards bodies, technology providers, marketplace platforms, and environmental consultants. One focus group was held with five attendees
03. Local authorities and other public bodies. No focus group was able to be convened but three 1:1 conversations were held
04. Environment and conservation groups - including Wildlife Trusts, ecological consultancies and environmental NGOs. Two focus groups were held with five and three attendees

In February 2023, an event was held for members of the Natural Capital Investment Community of Practice, which contains professionals who oversee or facilitate strategic regional frameworks, through which projects may be developed. Here, insights were gathered from 29 professionals with a strategic view of the landscape for environmental markets and private investment in nature-based enterprises. Similarly to the focus groups held as part of this review, a series of polls were carried out to gather data and structure the conversation[9].

During the course of the Review, the EKN team has actively participated in dialogue about nature finance in order to identify projects and to assess barriers and opportunities in the project pipeline. For example, the 2022 Natural Capital Finance & Investment Conference held by EKN in London (October) and Edinburgh (November), which brought together representatives from across the UK and from the multitude of sectors involved in the investment and stewardship of the natural environment. Additionally, EKN organised three workshops in March 2023 in Cardiff, Bangor and Newtown focussed on the shaping of environmental incentives and private finance for environmental restoration in Wales. Over 50 participants attended these workshops, from over 30 different organisations, representing multiple perspectives including: policy makers, farmers, farming representatives, community development, conservation, economists, local authorities and local politicians, financial and broker organisations.

Other events attended by EKN staff relating to nature finance have included:

- The Nature North Conference held in February 2023 by Nature North, a partnership who have set out a business case for nature recovery in the north of England;
- The Northern Ireland Nature Investment Plan Launch held by RSPB NI in March 2023, which included a roundtable discussion between stakeholders from business, finance, nature conservation and government in Northern Ireland; and
- Green Finance Workshop: Is the Conservation Sector Ready, held by the North Pennines AONB Partnership at the Royal Geographical Society in May 2023. This event brought together policy makers, senior representatives of delivery organisations, and senior conservation agency and eNGO staff.

SURVEY COMMENTS

Respondents to the online survey were given the opportunity to provide their own comments and experience on their pursuit of nature finance. They were asked what they think is biggest limiting factor, challenge, or enabler in scaling-up finance and revenue for environmental improvement in the UK.

Separately, a summary of project barriers was provided by the Environment Agency for NEIRF projects. The data were received in an anonymised format.

LYMINGTON, NEW FOREST *PHOTOGRAPHED BY* **NICK FEWINGS** *PUBLISHED ON* **SEPTEMBER 30, 2019**

NOTES

7. See details at Scotland's Nature Agency
8. Questions used to structure focus group discussions are available in the appendices
9. Questions and poll results are available in the appendices

DATA PROCESSING AND STATISTICAL ANALYSIS

Steps were taken to sort through data entries, checking for repetitions and entries that did not meet the survey criteria. Where organisations had made more than one entry, they were contacted to confirm that the entries were for separate projects. Where found, cases of repetition were deleted. Data were also checked for consistency, and in a very small number of cases, corrected. For example, where respondents had a project relating to a habitat type that had not been selected, this was corrected. Twelve entries were excluded on this basis.

In the survey, it was necessary to balance anonymity (possibly on the grounds of commercial sensitivity) against the need for verifiable information. A total of 23 respondents did not provide contact details. Entries which did not give enough information to determine that they represented a project that met the other criteria were excluded. Examples include the omission of organisation type, habitats and revenue streams. This represented ten projects.

To avoid survey fatigue for NEIRF grantees, whom were being evaluated by Ecorys on behalf of Defra over the same time period, an agreement was made whereby anonymised data from Ecorys' evaluation were shared with EKN. These data were incorporated and amalgamated with data generated from the Review survey, and supplemented by data contained within anonymised reports received from the Environment Agency, whom manage the NEIRF programme.

All qualitative comments received via the survey were categorised thematically[10] using an inductive analysis approach, with categorisation reviewed by a second coder to address biases. Similarly, notes taken during focus group discussions were reviewed by a different EKN member of staff using a video recording, to ensure accuracy and minimise the effect of paraphrasing.

LIMITATIONS OF THE METHOD

In designing the survey, there was a trade-off between maximising the amount of detail and information, and maximising the number of projects who would complete the survey.

The review was undertaken on the expectation that some nature finance projects are commercially sensitive and, therefore, their representatives would be hesitant about disclosing information. Similarly, others may have been considering their options and/or awaiting certainty on business-critical topics such as the taxation status of income from nature finance, rules about the stacking and bundling of different services from the same geographical area, and the details of public funding for the delivery of environmental outcomes. This may have resulted in hesitancy towards completing the survey.

Analyses carried out on data relating to questions where the respondent had the option to select multiple categories tended to generate blunt and imprecise results. An example of such an analysis would be looking at whether there were particular barriers associated with particular habitat types. Given that most projects selected multiple options, it was very difficult to infer particular trends, such as whether particular barriers were associated with individual habitats, with results produced showing homogenisation.

The method did not account for data on projects contained within registries of voluntary carbon offsets.

NOTES

10. The top 5 themes that arose from this analysis are listed within the results section, with the full list available in the appendices.

CHATHAM, KENT
PHOTOGRAPHED BY **ANDY HOLMES**
PUBLISHED ON **MAY 4 2020**

3

RESULTS

WOODBURY ROAD, DEVON
PHOTOGRAPHED BY
RED ZEPPELIN
PUBLISHED ON **MAY 12 2020**

A total of 235 entries were received via the online survey. Data representing 86 projects that have received grants from the Natural Environment Investment Readiness Fund (NEIRF, England only) were included, along with six projects that have received grants through the Investment Readiness Nature Scotland (IRNS).

16 entries were removed from the dataset, either because they did not meet the survey criteria or were a duplicate entry (for instance where both a consultant and landowner filled in the survey for the same project). The project entries subject to reporting and analysis were divided into 'place-based' and 'enabler' projects.

The results are reported as follows:

PLACE-BASED PROJECTS

- Characteristics
- Revenue generation
- Stage of development
- Finance and funding

ENABLER PROJECTS

FOCUS GROUP FINDINGS

Case studies of projects are included to illustrate the variety of projects in the UK's nature finance project pipeline, along with comments provided by survey respondents.

TYPES OF PROJECTS

177

Place-based projects

- Projects based in one distinct geographic location or a sub-regional cluster of locations. These ranged from projects on individual farms to initiatives extending across a landscape.

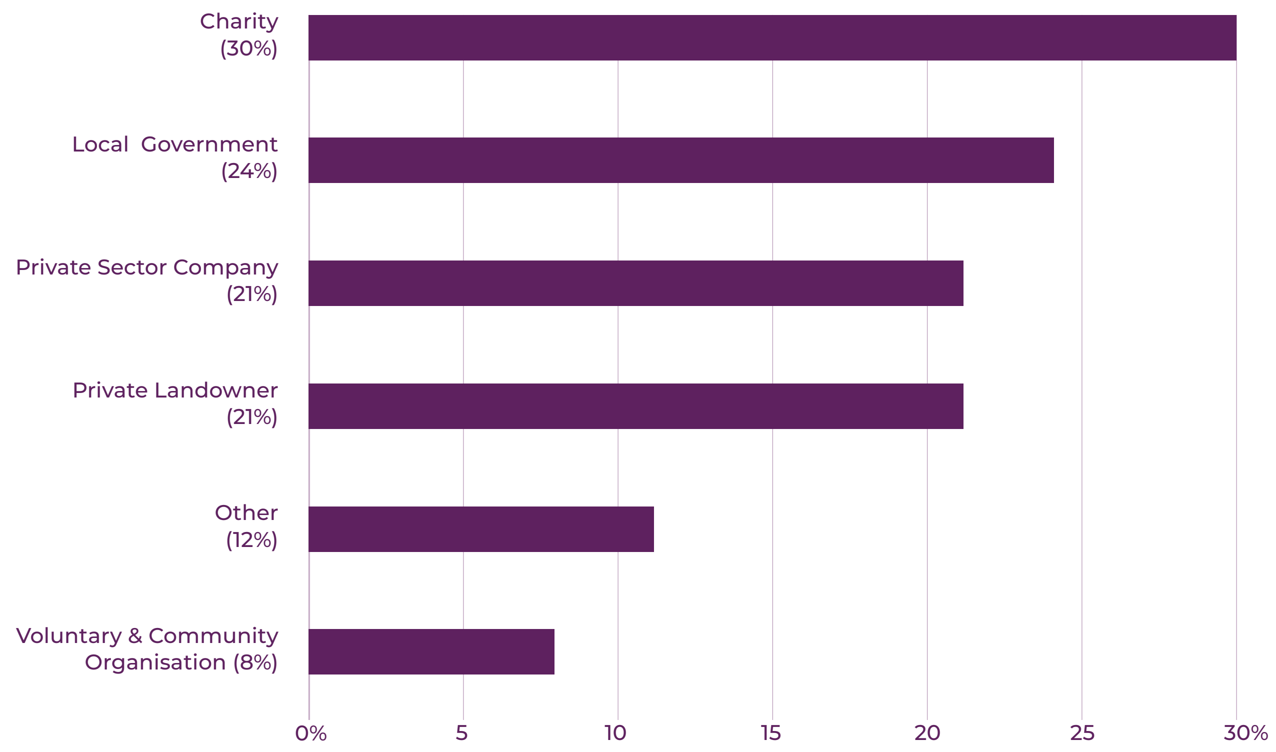
42

Enabler projects

- Projects not relating to specific locations. These often represented either national or regional bodies or umbrella projects that worked across projects. Projects in this group included, for instance, organisations providing online trading platforms for environmental credits.

PLACE-BASED PROJECTS | CHARACTERISTICS

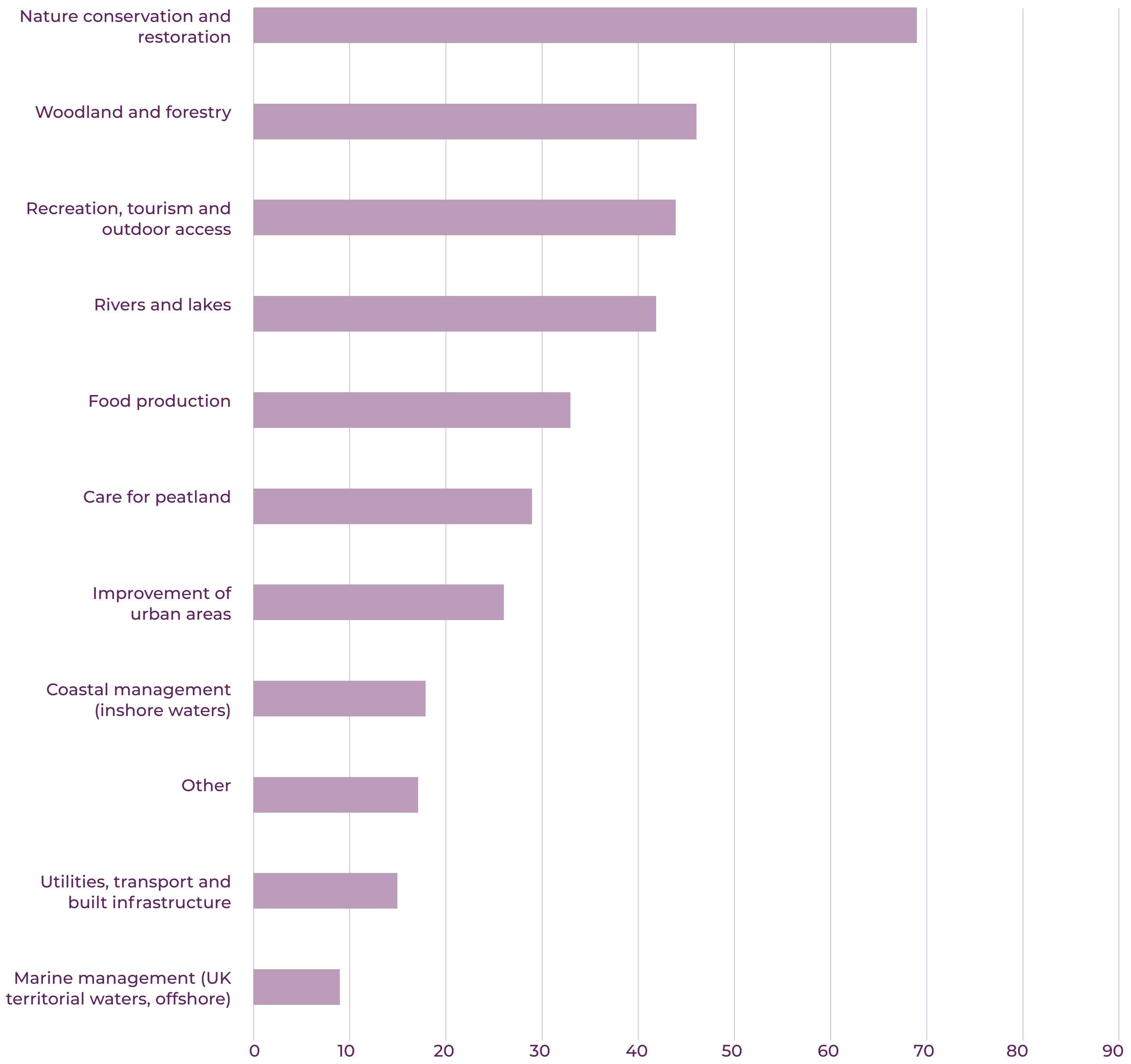
R1. TYPES OF ORGANISATIONS



- *The largest number of respondents were representatives of registered charities. Those organisations classing themselves as 'other' in the survey included a community investment company.*
- *When asked about their role in the project, 42% were acting in the capacity of advisor, consultant or broker for those directly responsible for areas of land, water and nature. A similar proportion (39%) were project owners. Tenants represented 3% of the place-based projects.*

R2. OBJECTIVES OF PROJECT REPRESENTATIVES IN THEIR DAY-TO-DAY WORK

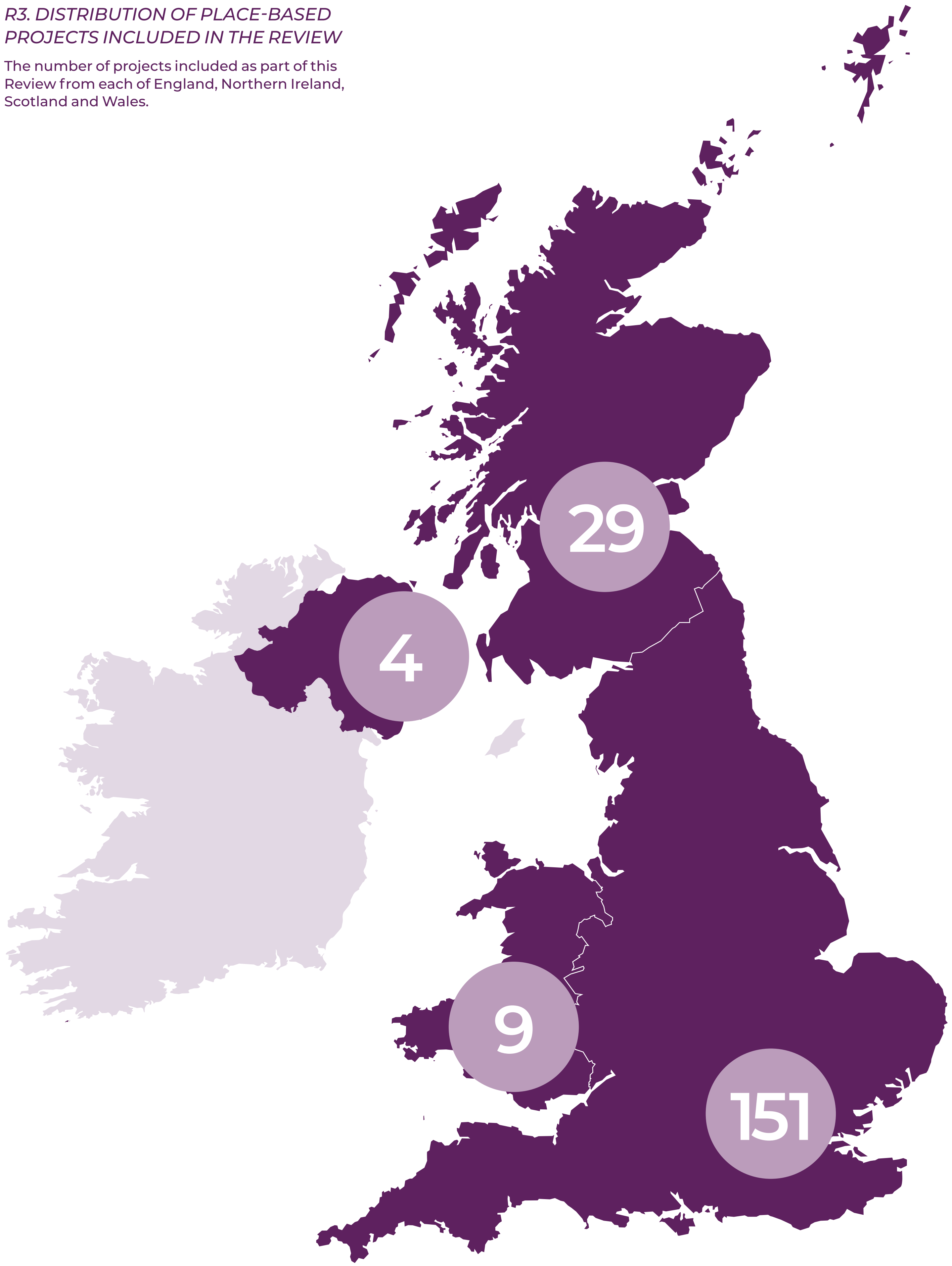
Note that respondents were able to select more than one category of activity. This chart shows the frequency with which the different categories were selected.



- *Most organisations reported carrying out more than one activity (80%). The mode number of organisational activities (selected from the six options) was four. The most common activity reported by organisations involved in nature finance was nature conservation and restoration (69% of responses). This was followed by woodland and forestry (46%) and then recreation, tourism and access (44%).*

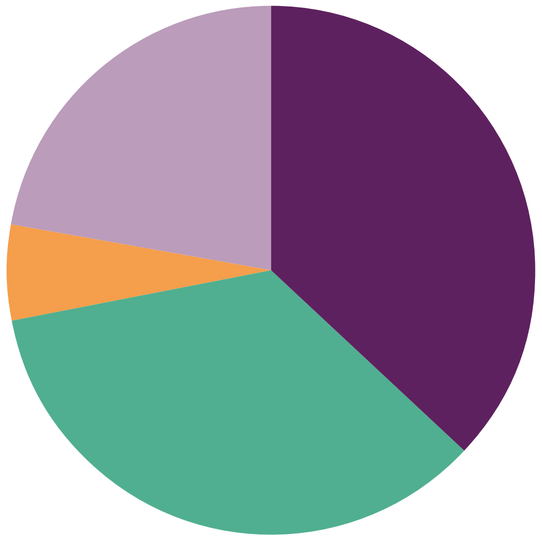
R3. DISTRIBUTION OF PLACE-BASED PROJECTS INCLUDED IN THE REVIEW

The number of projects included as part of this Review from each of England, Northern Ireland, Scotland and Wales.



R4. AREA OF LAND OR WATER ENCOMPASSED BY PROJECTS

For reference: The average UK farm size in 2021 was 81 hectares. Hyde Park in London is 140 hectares and Holyrood Park in Edinburgh occupies 260 hectares. One of the largest privately owned estates in England – the Swinton Estate in North Yorkshire – occupies 8,000 hectares.



- > 1000 ha 37%
- 120 - 1000 ha 35%
- 60 - 120 ha 6%
- < 60 ha 22%

- *The terrestrial place-based projects in the survey covered a wide range of land area. Most were either more than 1,000 hectares (37%) or in the range 120 to 1,000 hectares (35%). Of those greater than 1,000 hectares, some are large private estates in which nature finance projects may occur in various locations.*
- *An example is the project at the Tatton Estate in Cheshire, England, which involves the creation of new woodland and other habitats. Others represent regional schemes in which many different locations may be included. An example is the Kaly Group, which is developing the farming of kelp (a type of seaweed) on the west coast of Scotland.*

R5. TENURE OF PROJECT REPRESENTATIVE

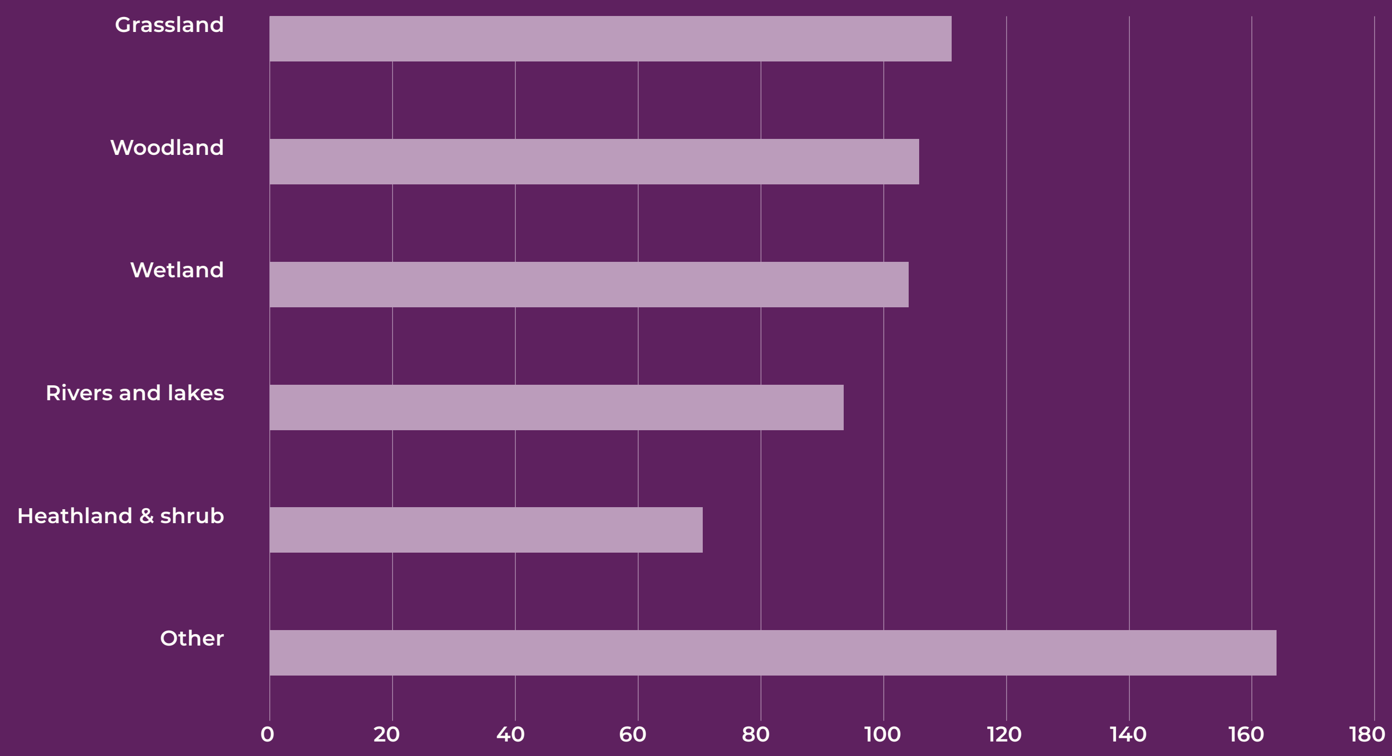
78%

of projects involve freehold land. This includes projects developed by charities on land that they own, as well as owners from the private sector.

- *Just over one third (38%) of the place-based projects involve landscapes that have official designation by central or devolved government (especially National Parks or Areas of Outstanding Natural Beauty).*
- *A slightly smaller proportion (31%) relate to leasehold private land and local authority land. 7% were situated all or in part in Marine Conservation Zones or Marine Protection Areas (where ownership rests with the Crown Estate and all commercial activity is licenced and regulated).*

R6. HABITAT TYPES REPRESENTED IN THE PROJECT AREA

Number of projects including each of the following habitat types.



- *The five most common habitats reported were grassland (65%), woodland (63%), wetland (61%), rivers and lakes (55%) and heathland and scrub (42%). 16% involved urban habitats. Collectively, 92% of projects involved at least one of these five habitat types.*
- *Most place-based projects (80%) reported more than one habitat present and the mode (most frequent number) of habitat types in the project area was two. Cropland was less common as the sole habitat with only 5% of respondents reporting no other habitat within their project area.*
- *There was no discernible difference in the mix of habitats represented by the place-based projects in each UK jurisdiction.*

Case Study	01
Location	Avalon Marshes area of the Somerset levels, South West England.
Size	80 hectares
Habitats	Lowland peat wetland, fen and marshland

Honeygar Farm, a Wilder Carbon Case Study

"Somerset Wildlife Trust is really proud to be a trusted deliverer with Wilder Carbon. Being a Trusted Deliverer means that we have the assurance we're working to high standards through the standards board and that our project has been checked and verified independently to make sure that we're going to deliver those carbon benefits and biodiversity gains."

Georgia Stokes, CEO, Somerset Wildlife Trust

Honeygar farm is an 80-hectare former intensive dairy farm on the Somerset levels which was purchased by the Somerset Wildlife Trust in January 2021.

Situated on lowland peat, the site was largely drained in the past to increase the yield of dairy cattle. In its current form, the site is a net emitter of carbon emissions, estimated at 1,642 tonnes of CO2 per year, as carbon seeps out of the dried peat.

Now the site is being 're-wetted' to restore valuable habitat for native species. Lowland peat can be one of the most carbon rich habitats known and so the site has potential, not just to reduce its emissions, but to one day sequester vast amounts of CO2 into the soil.

A restored Honeygar is strategically situated between several other wildlife reserves and will act as a corridor for flora and fauna, improving habitat connectivity.

The project is a test case for the Wilder Carbon standard for carbon credits. Incubated by the Kent Wildlife Trust, Wilder Carbon is a company which providing the UK's only 'conservation grade' carbon units, owing to their commitment to sequestering carbon through the creation or restoration of high-quality native habitat. Wilder Carbon projects leverage finance only from the carbon benefit of delivering UK nature restoration, which is then sold to UK business who are demonstrably reducing their own emissions. Wilder Carbon projects are required to demonstrate a biodiversity uplift, and Wilder Carbon will be looking at how they can explicitly bundle these additional benefits in line with emerging biodiversity and nature impact frameworks for meaningful climate impact claims.

Wilder Carbon Units are sold on the 'voluntary market'). To qualify for purchasing these units, buyers must be also demonstrably reducing their own emissions, avoiding greenwashing and ensuring emissions are also reduced at source. Wilder Carbon also takes a conservative approach to carbon emissions estimating, purposefully underestimating the capacity of sites to absorb carbon so that the process remains defensible and replicable.

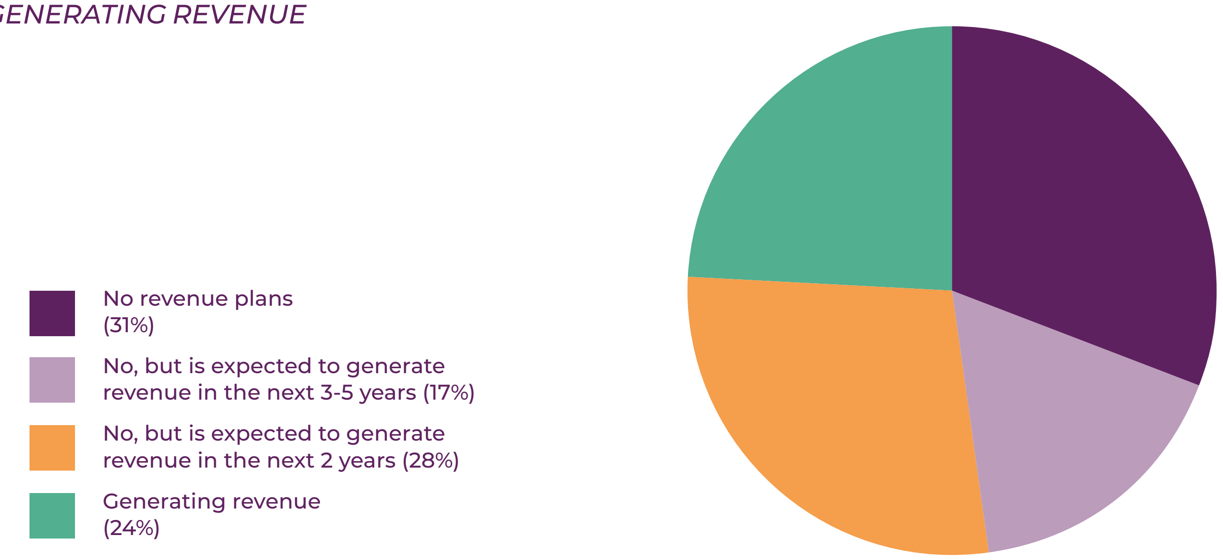
This project will provide an opportunity to record, investigate and understand in detail the relationship between wilding ecosystems and carbon capture for lowland peat and forge partnerships to stimulate a new economic model for the Somerset Levels that puts nature-based solutions at its heart.

To find out more, visit Wilder Carbon's website.

Revenue Model	*Sale of (nature-based) carbon credits. Note that these Wilder Carbon Units are not bundled with other environmental credits. Wilder Carbon are looking at how they bundle additional benefits with the emerging biodiversity and nature impact frameworks.*
Public/Grant Funding	*£100,000 grant funding of Wilder Carbon testcase through the Environment Agency's NEIRF (Natural Environment Investment Readiness Fund). Note that this was granted specifically for the development of the Wilder Carbon Standard and was not received specifically by the Honeygar project.*
Legal arrangements	*The farm site was purchased by the Somerset Wildlife Trust in January 2021.* *Wilder Carbon units are accompanied by carbon credit certification.*
Parties involved	*Somerset Wildlife Trust – 'Trusted deliverer' undertaking conservation and restoration work.* *Wilder Carbon – supplier and broker of conservation-grade carbon units from site for sale on the voluntary carbon market.* *Soil Association (Certifier of carbon accreditation)*
Environmental improvement	*Re-wetting and restoration of lowland peat in the Avalon Marshes, an internationally important area of wetland. This will provide habitats for a range of rare and vulnerable flora and fauna, such as the illusive bittern, and connect other fragments of wetland.* *Restoration of natural wetland will also likely result in improvements to water quality downstream of it, through the removal of phosphate and nitrate pollution and will act as a natural water buffer, reducing flooding risk locally.*
Social impact and engagement	*Retention of some limited grazing to maintain pasture habitat through lease of land to neighbouring dairy farmer.*

PLACE-BASED PROJECTS | REVENUE GENERATION

R7. PROPORTION OF PROJECTS GENERATING REVENUE



PROJECTS GENERATING REVENUE

Whether from the sale of environmental credits or products for which sales finance environmental restoration activity directly, revenue is the core of most nature finance projects. Without it, repayable finance and investment are not possible. The main exception is private investment in rural land on the basis of the uplift in its market value that is likely to result of improved environmental condition.

A total of 122 projects participating in the survey stated their position on revenue generation. A minority of projects (24%) said that they were generating revenue at the time of their participation in the survey. A further 45% of projects reported that they likely would be generating revenue within the next five years. The remainder did not expect to generate revenue (see the Discussion for possible explanations of this).

REVENUE AND ORGANISATION TYPES

Voluntary groups[1] and registered charities are organisation types with the largest proportion of projects generating revenue or likely to in the next two years (over 60% of projects within both groups), followed by private landowners (43%). Only five projects were represented by tenants.

REVENUE ACROSS LAND AND MARINE HABITATS

A smaller proportion of projects involving a marine habitat are generating revenue than projects involving non-marine habitats.

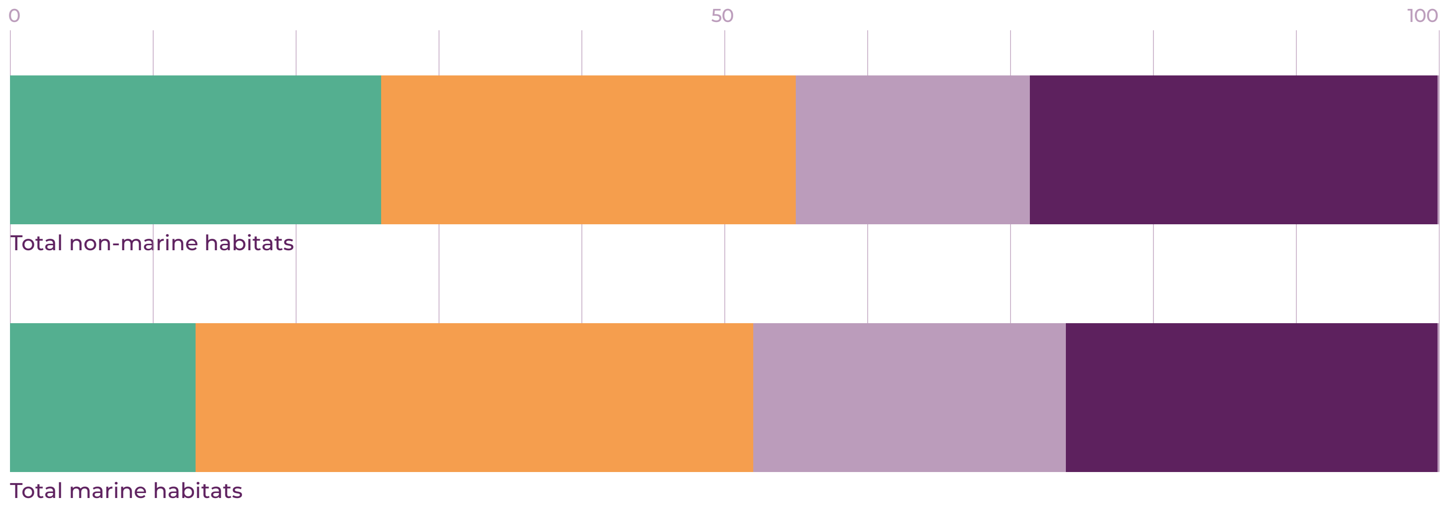
REVENUE AMOUNTS

A total of 24 projects reported the level of revenue they were expecting once up and running (if not already). Nine projects estimated revenues of £100,000-500,000, eight projects estimated revenues of more than £1 million, four projects estimated revenues of up to £100,000, three projects estimated revenues of £500,000 to £1 million.

NOTES

1. Voluntary and Community Sector Organisations are entities set up to serving local communities, but that aren't registered charities. They may include Community Interest Companies.

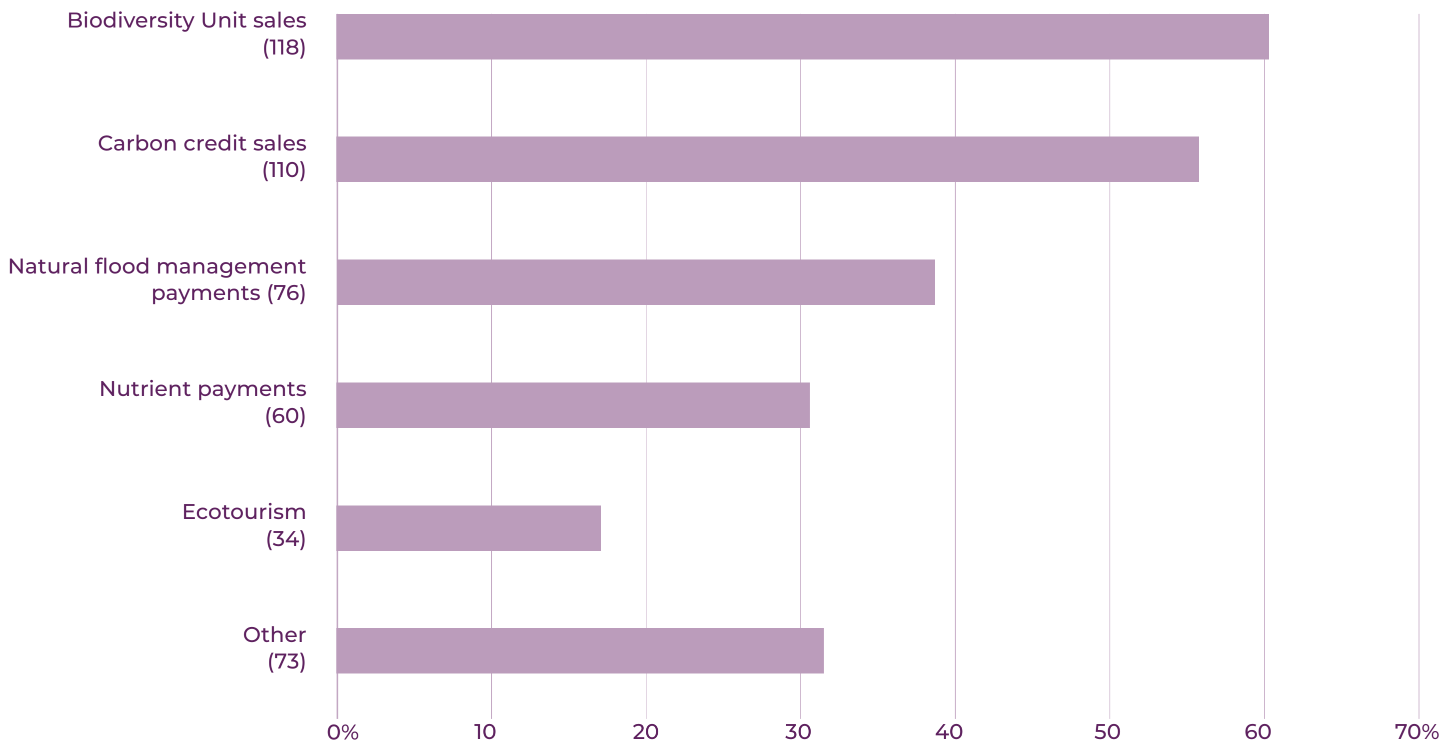
R8. PROPORTION OF PROJECTS GENERATING REVENUE IN MARINE AND LAND-BASED HABITATS



R9. PROPORTION OF DIFFERENT ORGANISATION TYPES GENERATING REVENUE

R10. TYPES OF REVENUE

Proportion of projects generating revenue (number of projects in brackets)



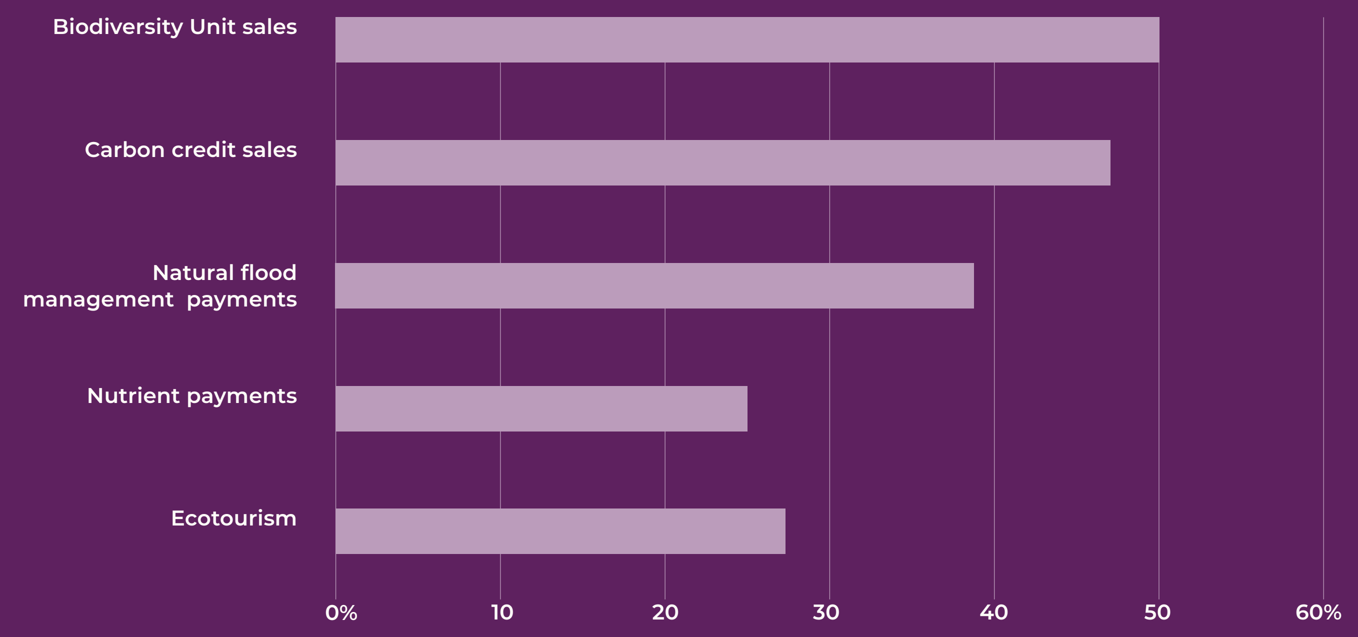
Projects were invited to select the revenue types that were applicable to them. Many chose multiple revenue types. Biodiversity unit sales (118 projects – 66%) and carbon credits (110 projects – 61%) were the most common types of revenue. Biodiversity credits were also the revenue stream of greatest interest in the focus group that comprised farming representatives from England (a legal requirement for biodiversity net gain through built development will come into force in England in November 2023).

The revenue streams reported in the 'other' category were commodities (such as 'conservation-grade' food products and seaweed) and rental income. Of those projects reporting revenue relating to reductions in the loss of nutrients to water courses, 29 related to nitrogen and 24 related to phosphorous (28 did not state the type of nutrient credit involved).

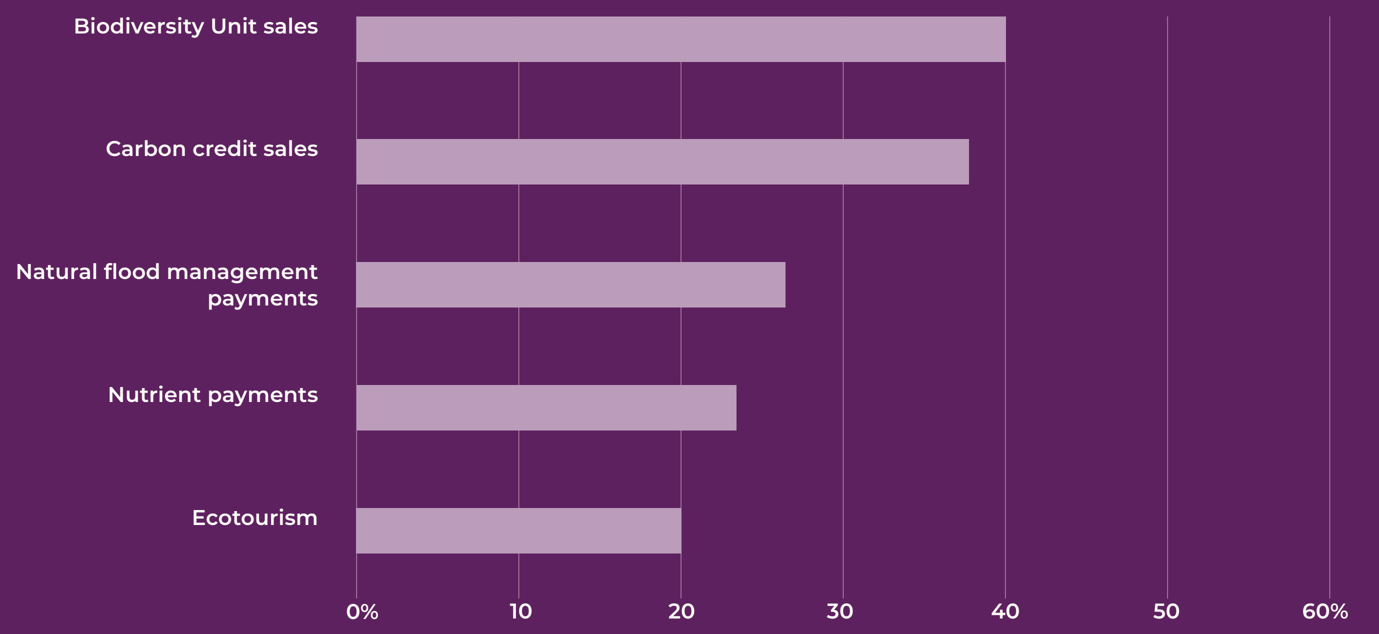
R11. REVENUE STREAMS BETWEEN PROJECTS INVOLVING MARINE OR LAND-BASED HABITATS

Frequency revenue streams were reported against marine habitats or land-based habitats

MARINE HABITATS



LAND-BASED HABITATS

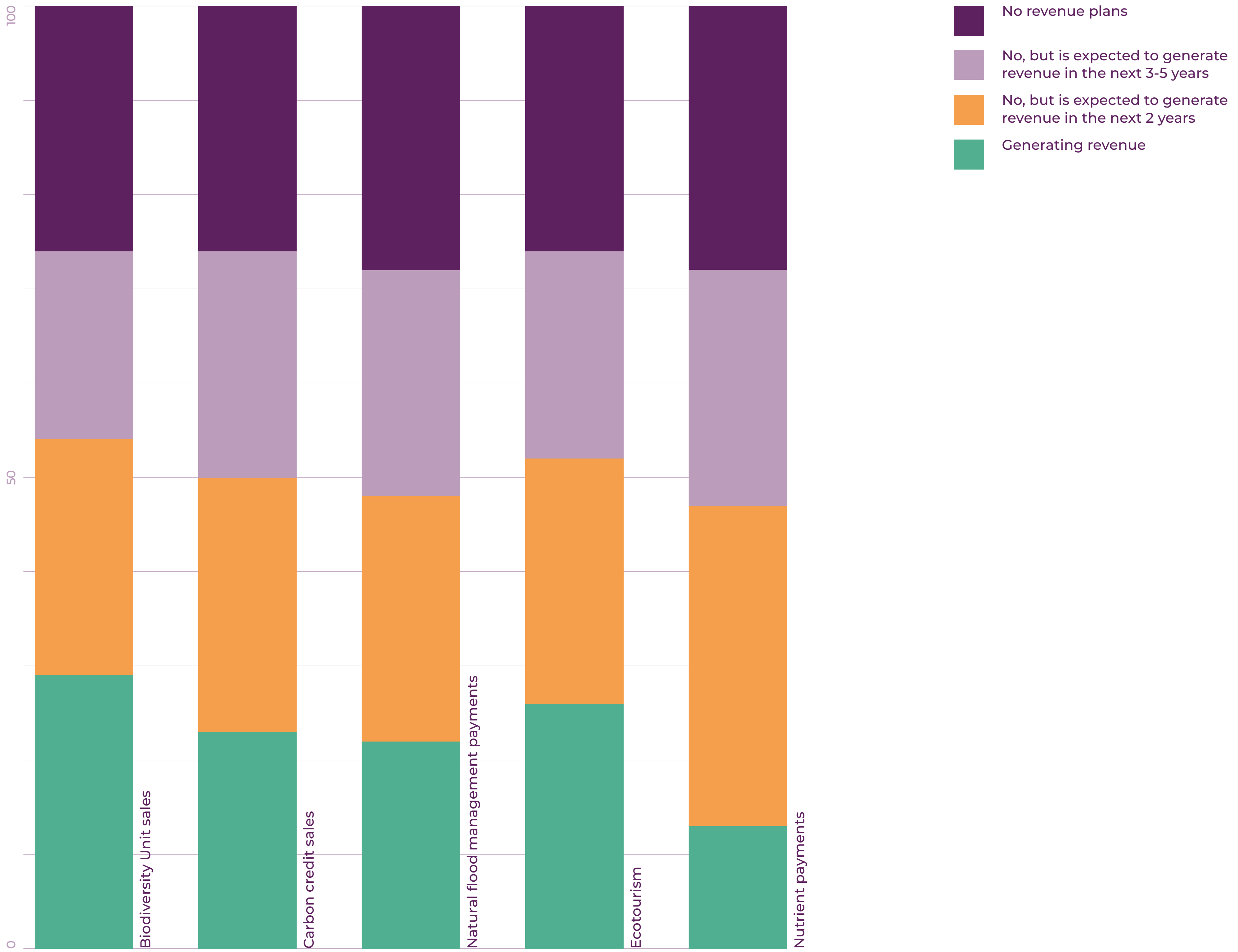


Projects involving marine habitats were less likely to report the pursuit of specific revenue streams than those that were entirely land-based.

In general, there was little correlation between the habitats within project areas and the revenue streams that were being accessed or targeted.

R12. REVENUE BY CATEGORY OF WHAT IS BEING (OR WILL BE) SOLD

Note that this analysis does not include NEIRF projects as the data were not available to EKN via the ongoing evaluation by the appointed contractor.



"Given the reduction in BPS [Basic Payment Scheme], landowners are looking for other options to generate income. One way is through providing ecosystem services. Landowners need a mechanism to provide these services and to be financially recompensed for this work."

Comments from a farm business representative in the EKN survey

Case Study	02
Location	Lyme Bay, Devon
Size	15.4km^2
Habitats	Inshore coastal waters

Place-based nature finance case study: Offshore Shellfish

This case study illustrates how the production of food can have a revenue stream that contributes directly to environmental improvement

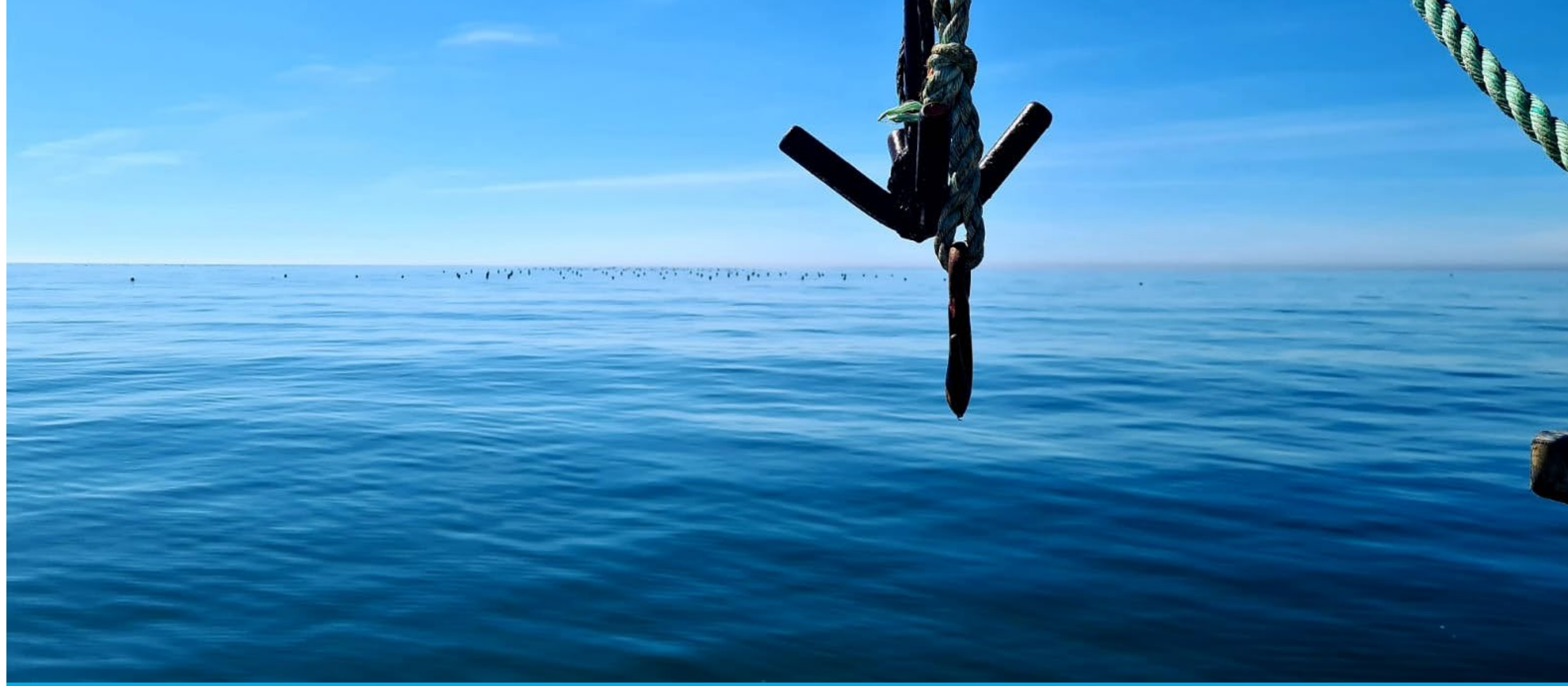
Offshore Shellfish Ltd[1] is a family-run company running an offshore, rope cultured mussel farm for the native blue mussel, Mytilus edulis. Once complete, the farm will be largest of its kind in European waters, with capacity to grow more than 10,000 tonnes of mussels per year. The farm is situated in open water, between 3 and 6 miles out to sea in Lyme Bay, Devon. It is well-placed to take advantage of the ideal growing conditions present in the English Channel.

Custom-made ropes, suspended from longlines in continuous loops, collect naturally occurring wild mussel larvae, which settle as microscopic 'spat' during late spring. After the spat has grown for a few months, it is stripped from the ropes, washed, graded and seeded onto new ropes at the ideal density using a wrapping of biodegradable cotton. The reseeded ropes are hung back in the water, where the mussels are left to grow to market size.

Mussel farming requires no inputs of feed, chemicals or medications. Offshore Shellfish Ltd is committed improving the marine habitat, becoming the first mussel farm in Europe to attain Best Aquaculture Practise (BAP) certification from the Global Seafood Alliance. It is also certified by the ASC (Aquaculture Stewardship Council) and as an organic aquaculture farm by the Soil Association.

Working with the University of Plymouth, Offshore Shellfish has evidenced an increase in biodiversity, productivity and species richness within the farm. Offshore farms can contribute to improving the quality and clarity of our waters once again. Mussels can also permanently lock up large amounts of carbon, as their shells are formed of calcium carbonate.

For more information, visit offshoreshellfish.com



Revenue Model	*Sales of mussels to customers across the UK and the European Union.*
Loan or Finance Structure	*Equity investment.*
Public/Grant Funding	*European Maritime and Fisheries Fund funding for one stage of development.*
Legal arrangements	*Seabed lease from the Crown Estate and hold a Marine Management Organisation licence for the build. Registered as an aquaculture business with the Fish Health Inspectorate. Sites classified as a shellfish harvesting area with the Food Standards Agency. Location of sites registered with the hydrographic office and included on Admiralty charts.*
Parties involved	*Accreditation through the ASC (Aquaculture Stewardship Council), Global Seafood Alliance Best Aquaculture Practices, and the Soil Association. Collaboration with Plymouth University to monitor the impact of the farm on the marine ecosystem and sponsorship of studentships.*
Environmental improvement	*Creation of new habitats, food and nursery areas for fishes and invertebrates.* *Carbon sequestration (atmospheric and oceanic carbon is drawn in to build shells).* *Improved water quality*
Economic and social impact	*Provision of a sustainably farmed and nutritious food source. Creation of 20 skilled jobs in an economically depressed coastal area. All sea-going crew undergo extensive mandatory training to ensure the safe operation of vessels and equipment and the delivery of a quality food product.*
Barriers encountered and how these were overcome	*As pioneers in offshore farming, the company worked with government and agencies to develop the necessary governance structures and legal entities to enable the development to take place. The biggest barrier to development has been Brexit due to its impact on the company's ability to export elsewhere in Europe. Solutions to this barrier are still being sought.*

PLACE-BASED PROJECTS | STAGE OF DEVELOPMENT

PROJECT STATUS

Of the place-based projects participating in the survey, 30% considered themselves to be at the 'initial research' phase. 5% of projects considered themselves to be 'stalled'. The remaining projects were 'ongoing', meaning that they were at some stage of the 'investment readiness' process, including revenue generation. There was no discernible correlation between type of lead organisation and project status. The only exception is that the highest proportion of 'stalled' projects was found in VCSOs.

PROJECT MILESTONES

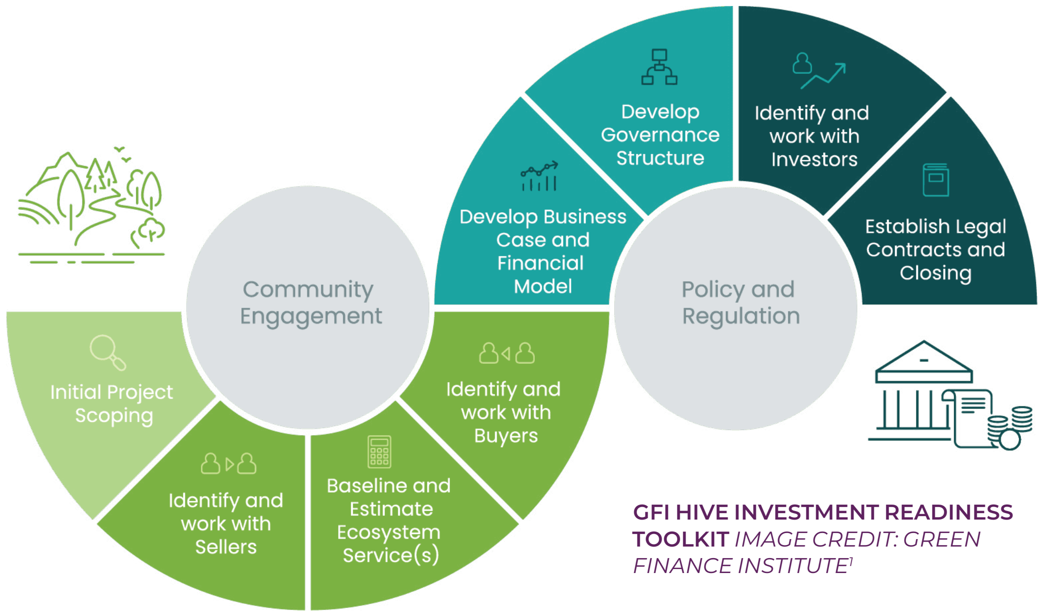
Survey respondents were asked to select the milestones which their projects had reached, corresponding to the GFI Hive Investment Readiness Toolkit[1]. Our analysis, as one would expect, shows that there is a much greater number of projects at the earlier stages of project development such as scoping sites, identifying sellers and carrying out baseline estimates.

NOTES

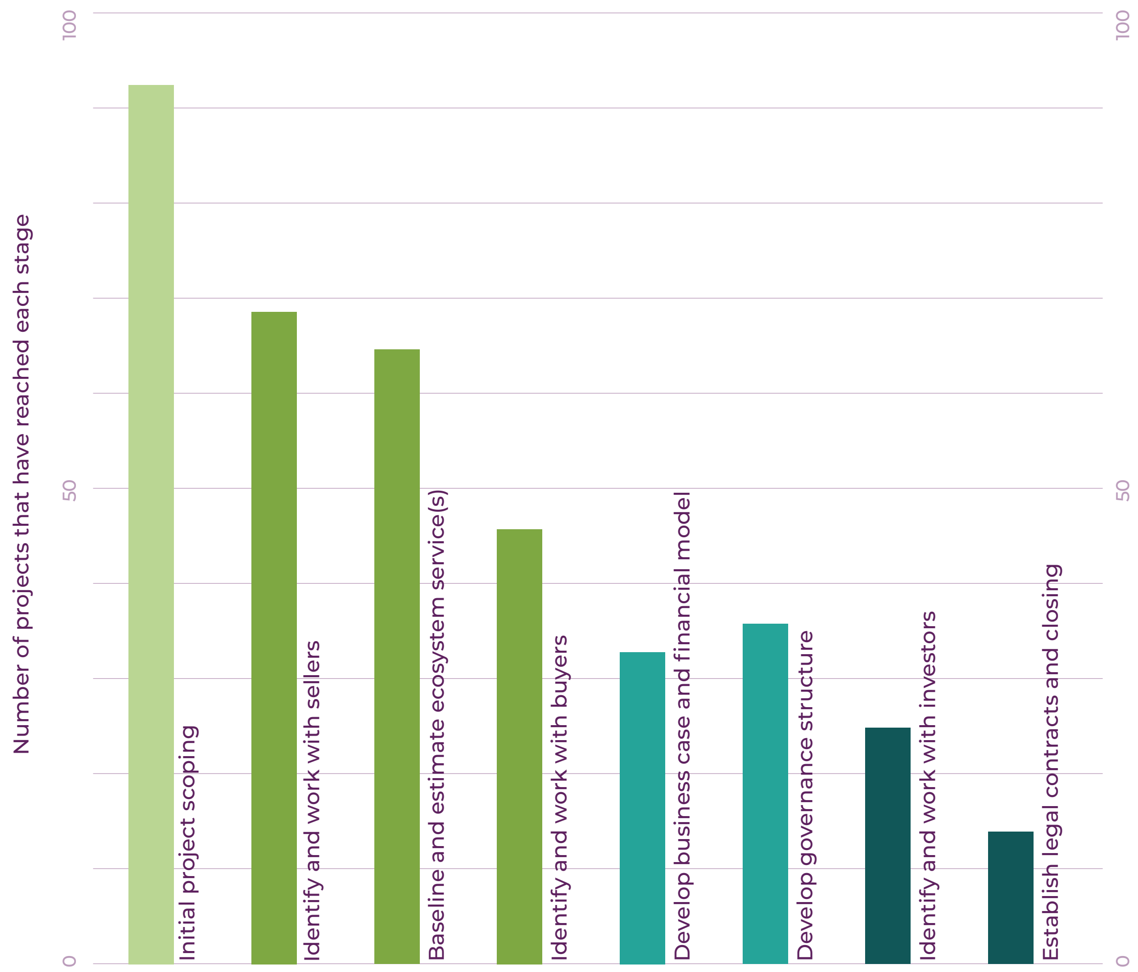
1. Available at Green Finance Institute's website.

R13. PROJECT STATUS BY MILESTONE IN THE GREEN FINANCE INSTITUTE'S INVESTMENT READINESS TOOLKIT

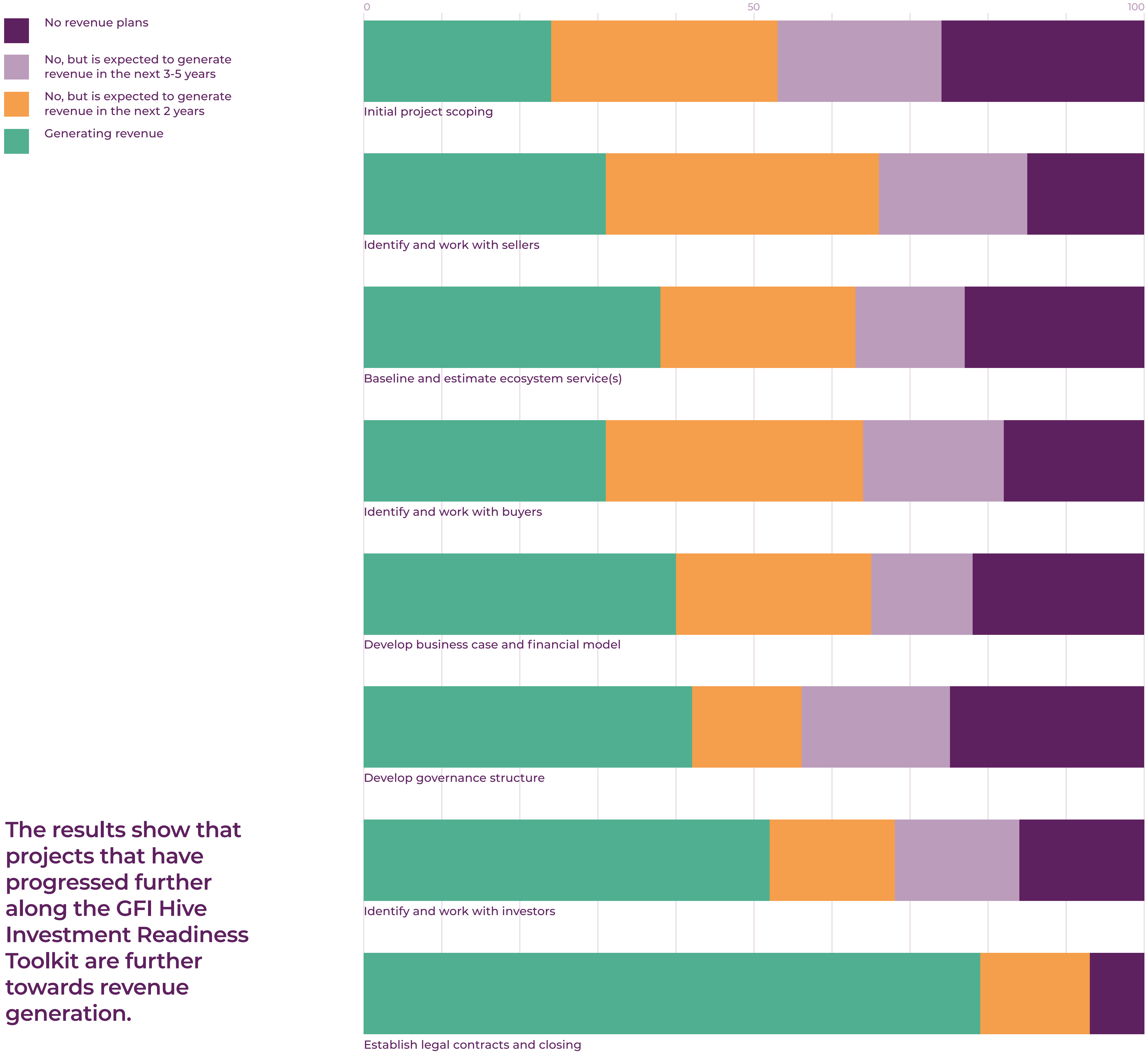
The proportion of projects whom have reached the milestones outlined as part of the GFI Hive Investment Readiness Toolkit[1]



GFI HIVE INVESTMENT READINESS TOOLKIT *IMAGE CREDIT: GREEN FINANCE INSTITUTE*[1]

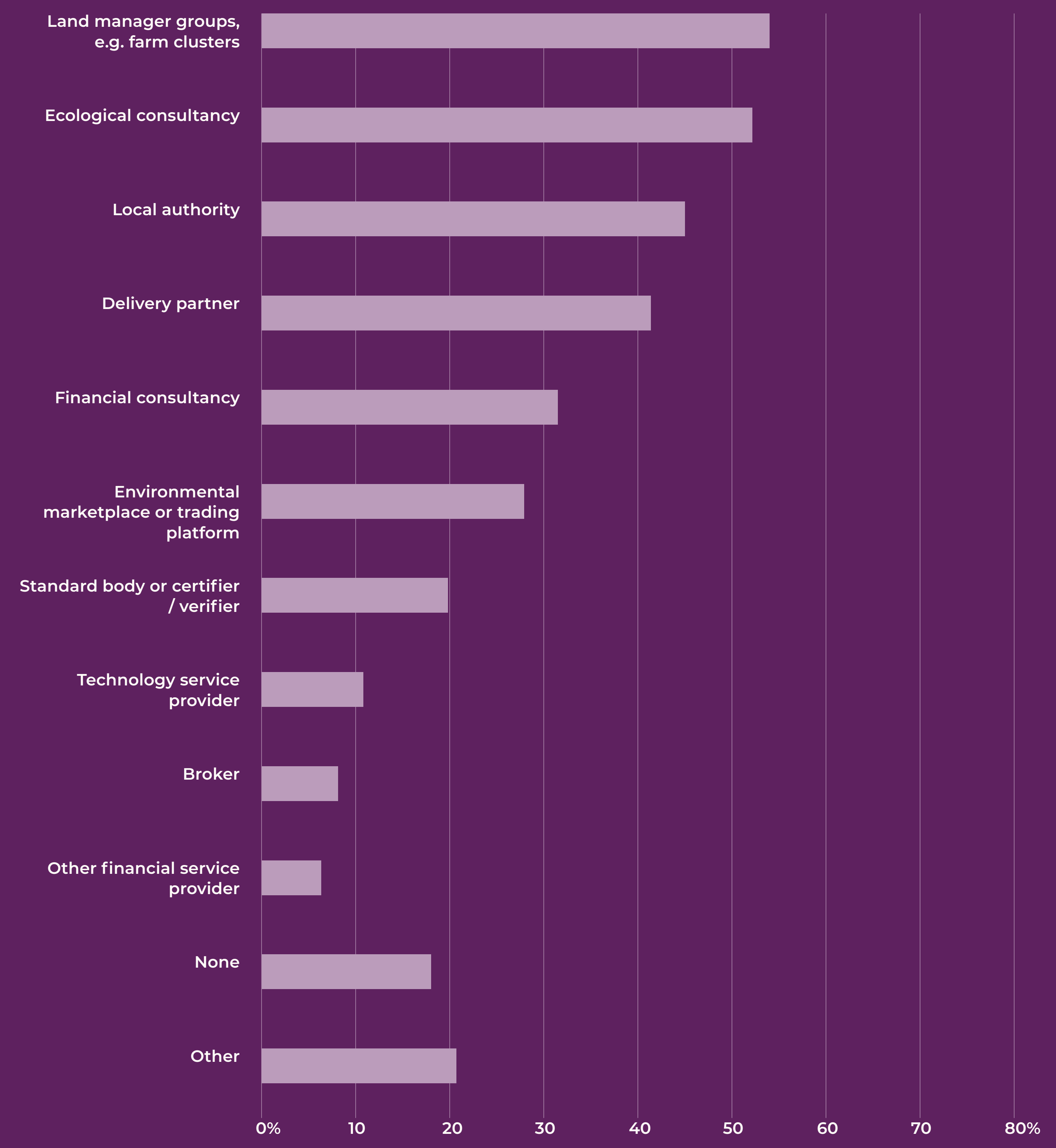


R14. RELATIONSHIP BETWEEN REVENUE PLANS AND INVESTMENT STAGE



The results show that projects that have progressed further along the GFI Hive Investment Readiness Toolkit are further towards revenue generation.

R15. TYPES OF INTERMEDIARY OR COLLABORATOR



The majority of survey respondents (64%) stated that they were either working with more than one intermediary (between them and the source of finance) or with a collaborator. In some cases, the intermediaries are brokers, aggregators or agents. In other cases, the project involves collaboration with other managers of land, water and nature, such as in farm clusters (groups of farm businesses that have agreed to collaborate in order to achieve certain outcomes).

"The whole field is still emergent. It is not yet clear to us yet which approach is best for our project. We have older and newer areas of activity - with a range of different strengths and it is difficult to find advisors that are both experienced and unbiased."

Comments from a Scottish private estate representative in the EKN survey

COSTS REPORTED BY PROJECTS

	Initial costs to reach revenue generation	Annual maintenance costs
Up to £100,000	6	9
£100,000 - £500,000	8	7
£500,000 - £1million	3	1
More than £1million	8	1
No. projects reporting	25	18

Case Study	03
Location	Duxford Old River, Oxfordshire
Size	45 hectares
Habitats	Wetland, grassland, shrub, and woodland

Duxford Old River, BBOWT (Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust)

"We want to see BNG regulation implemented so that it supports nature's recovery and is not just a compensation scheme for economic development where the environment and people lose out."

BBOWT acquired the 45Ha Duxford Old River site in 2017 primarily due to its location directly adjacent to its 307Ha Chimney Meadows nature reserve in Oxfordshire. This site lies at the heart of the Upper Thames Conservation Target Area and is part of BBOWT's Upper Thames Living Landscape Scheme area, both important for landscape scale conservation.

The site was previously managed as commercial pasture for cattle and so had a very low value of biodiversity. Over 30 years of nature-led management, a mosaic of key floodplain habitats will be created, such as floodplain wetland mosaic, other neutral grassland, broad-leaved woodland, and mixed scrub. These habitats will support species of wildfowl, waders, songbirds and specialist wetland invertebrates. An 'Environment Benefits from Nature' assessment revealed that in 30 years we predict to see increases in a range of services, such as flood regulation, erosion protection, carbon storage, and interaction with nature.

The opportunity for long term investment into this site to improve the biodiversity presented the ideal platform to achieve this through Biodiversity Net Gain as a new Habitat Bank. Through a project funded by Defra's NEIRF, we worked with Warwickshire, Cheshire and Surrey Wildlife Trusts and the social enterprise financial advisors, Finance Earth, to pilot the creation of a financial model for Duxford Old River as a habitat bank. This provided the necessary tools and information to evaluate the commercial viability of the project.

The Trust for Oxfordshire's Environment (TOE) is an independent place-based environmental funder, whose grant-making included a contribution to BBOWT's campaign to purchase Duxford. From 2018, TOE had started engaging with Local Planning Authorities, developers and landowners in the area to broker biodiversity offsets (initially on a 'no-net-loss' basis) in the pre-mandatory BNG market. From very early in this process, BBOWT and TOE began to look at ways in which BNG units aggregated by TOE could support the 'natural process led' approach at Duxford.

While there were many challenges in the project's developmental process, including the uncertainty associated with a dynamic pre-regulatory environment, TOE and BBOWT agreed to the first transaction of a significant quantity of BNG units from Duxford, which provided BBOWT with some seed funding to support the early management activity across the entire site.

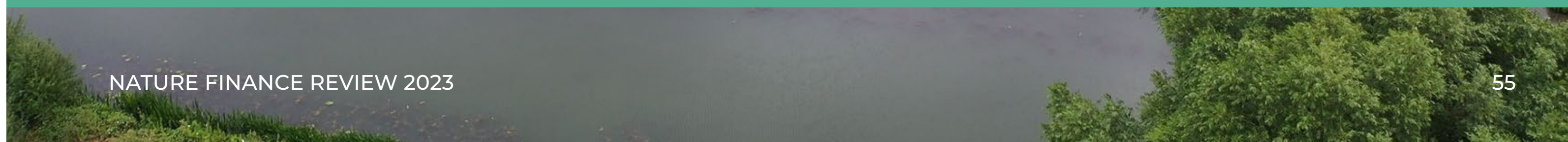
In the pre-mandatory / piloting phase of BNG, TOE was able to employ units from a variety of development sites, aggregating these to support one site of significant value. These kind of small unit transactions (i.e. less than 10 units) are currently a significant proportion of the off-site BNG market. While it is unlikely that this precise way of working can be replicated after mandatory BNG is introduced, if BNG is to support nature recovery in line with Lawton principles[2], it is hoped that exemplars models of aggregation such as Duxford Old River will be able to be replicated within the post-November 2023 mandatory BNG regulatory framework .

Duxford Habitat Bank has a large volume of units still to sell, ready for the expansion of the local market when BNG becomes regulated in November. The creation of Duxford Old River as a habitat bank will generate over £1m of new incremental revenue for BBOWT with a positive gross operating margin which will be required to fund the monitoring and reporting requirements for the delivery of biodiversity net gain throughout remaining term of the 30-year project. BBOWT and TOE's partnership has helped to enable a strategically important nature recovery initiative and they hope to continue to work together to achieve impact using BNG funds as the regulatory framework allows.

NOTES

1. More information on the 'Lawton Review' into 'Making Space for Nature' can be found here.

Revenue Model	*Biodiversity Net Gain*
Loan or Finance Structure	*Site acquired through a BBOWT appeal (funding from individuals, trusts and grants), and TOE income generated through the sale of biodiversity units with developers*
Public/Grant Funding	*£100,000 received from the Natural Environment Investment Readiness for four Wildlife Trusts (BBOWT, Cheshire, Warwickshire and Surrey Wildlife Trusts) and Finance Earth to develop The Wildlife Trusts Habitat Banking Investment Model. This grant helped the development of a financial model which was tested on Duxford and two other habitat banking pilot sites.*
Legal arrangements	*Biodiversity Gain Agreement between Berkshire, Buckinghamshire and Oxfordshire Wildlife Trust (BBOWT), Trust for Oxfordshire's Environment (TOE)*
Parties involved	*BBOWT and TOE.* *Finance Earth (advisors)*
Environmental improvement	*Previously managed as a commercial pasture for cattle with a low biodiversity baseline, the site will now be managed by BBOWT through a nature-led approach creating a mosaic of key floodplain habitats linked to our adjacent Chimney Meadows 307Ha nature reserve.*
Social impact and engagement	*Duxford Old River will be managed and developed through our teams of staff and volunteers, and as part of our larger Chimney Meadows Nature Reserve is accessible to the public.*
Barriers encountered and how these were overcome	*The key challenges faced by BBOWT and TOE have centred around the developing government legislation for BNG which has potential to radically impact the viability of projects, and has yet to be finalised despite becoming mandatory in November 2023. BBOWT have addressed these barriers by focussing on our longer term strategic conservation objectives for this site whilst TOE have actively engaged with the LPA and commercial stakeholders to create local agreements before the national legislation becomes effective.*



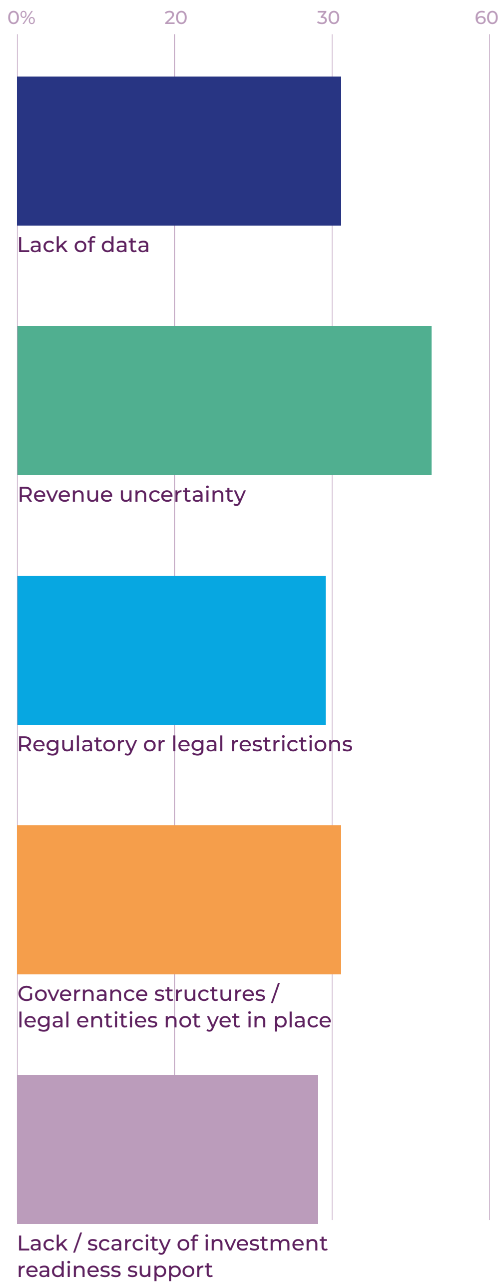
BARRIERS REPORTED BY PROJECTS

R.16 INSIGHT FROM COMMENTS MADE BY PLACE-BASED PROJECTS

187 projects provided comments. The majority of these related to barriers that they faced. A selection of these comments are provided throughout this report. Whilst these were varied and detailed, many could be categorised under common themes.

Cumulatively, these five barriers were reported 210 times. The remaining barriers (by frequency reported: 'volatility in carbon/biodiversity/nutrient etc. markets', 'concern about losing government benefits', 'discomfort with time commitments involved', 'private finance not accepted by all involved', 'revenue insufficient', 'local community objections/reservations' and 'less profitable than traditional activities of my organisation') were reported 125 times.

	5 MOST COMMON THEMES	%
1	Policy uncertainty	30
2	A lack of experience, capacity or knowledge	16
3	Issues relating to stakeholder engagement	16
4	Issues relating to accreditation, compliance or regulation	16
5	Issues relating to data, e.g. a lack of data	13



"Unless we can see **where change is needed**, and **at what scale**, we have less hope of the status of the landscape becoming a strong enough social concern to positively and urgently affect market forces."

Scottish countryside charity,
EKN survey participant

"**Uncertainty, lack of skills** in our sector, lack of time to **research** it all."

Anonymous,
EKN survey participant

"Without clear **guidance** and **direction** from the government, it can be challenging for investors to make informed decisions about where to allocate their resources."

Livestock farmer,
EKN survey participant

"The ability of private sector finance to scale down to **farm/estate scale**"

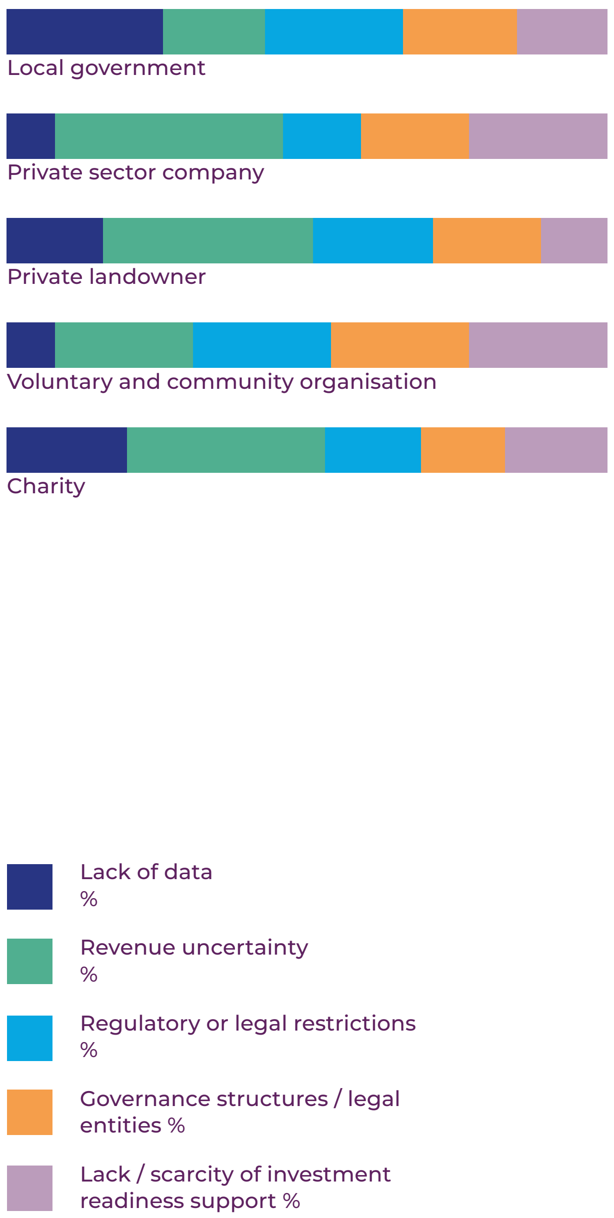
Private Estate, Northern England

"The **policy** background isn't in place to deliver necessary financial **returns.**"

Anonymous,
EKN survey participant

R17. BARRIERS BY ORGANISATION TYPE

Proportion of barriers for each organisation type participating in the EKN survey.



MOST IMPORTANT BARRIERS TO INVESTMENT READINESS

Top 5 barriers to investment readiness, corresponding to the proportion of barriers reported by projects.

- *Projects in Wales and Northern Ireland were excluded as the sample size was too small (nine and four projects respectively).*
- *Scottish projects more often report lack of investment readiness support as a key project barrier compared to English projects.*

	ENGLAND	%
1	Revenue certainty	19
2	Regulatory or legal restrictions	12
3	Lack of data	11
4	Governance / legal entities not yet in place	11
5	Lack / scarcity of investment readiness support	10

	SCOTLAND	%
1	Revenue certainty	20
2	Lack of investment readiness support	14
3	Lack of data	12
4	Volatility of environmental markets	11
5	Governance / legal entities not yet in place	10

R18. BARRIERS BY HABITAT TYPE

Proportion of barriers observed between marine and non-marine habitat types.

When taken as a dataset, there were little discernible correlations between particular barriers reported and particular habitat types. However, we see some minor differences in barriers faced by projects with marine habitats and those without. Marine projects reported revenue uncertainty and issues with governance structures or legal issues proportionately more than non-marine projects, compared to other barriers.

Lichfield District Council

Case Study	04
Location	Lichfield District Council, Staffordshire
Habitats	Healthland, woodland, grassland, rivers and wetland

CANNOCK CHASE
PHOTOGRAPHED BY **REBECCA PREST**
PUBLISHED ON **MAY 19, 2018**

This case study illustrates how a local authority can design a system that unlocks revenue streams for environmental improvement in the right place at the right time

In 2014 Lichfield District Council began designing a policy which would establish a mechanism which would mandate a net gain in biodiversity from any new development in the district. This scheme, known as 'the Lichfield model' became policy in 2016, seven years before BNG is to become mandatory across England this year. The model won an Local Government Chronicle (LGC) award in 2022 for its innovative approach.

The main features of the scheme are:

- Developers must submit a 'biodiversity offset feasibility plan' required to show a 20% net gain in biodiversity (more than 10% gain stipulated in Environment Act 2021) from any new developments. This is known as the 'replacement percentage'.
- This rule only applies to habitats lost, which incentivises retaining the best habitats already present on a site.
- Lichfield's Nature Recovery Network (NRN) Mapping and Habitat Creation Opportunity Map shows strategic sites, habitat corridors and distinctiveness within these. This builds on the success of a project within its Nature Recovery Network, which describes key locations where habitats may be created or enhanced, and Lichfield District Land Search which highlights where land is, or may be available, for biodiversity offset delivery.
- A decision matrix to understand which projects are the most ready and willing, and to prioritise the right habitat in the right place.
- This policy has led to standardised and enforceable ecological planning conditions and standardised and enforceable s106 agreements (section 106 agreements, a type of planning obligation). These however offer some flexibility in implementation.
- BUs (Biodiversity Units) are sold at £35,000 each, but were previously sold at £21,000 each.
- Revenue is ring-fenced to carry out habitat management according to what has been legally agreed, but can be used as match funding to offer other benefits
- Alternatively, developers can source BUs from third-party providers and the council is currently conducting land search to find other third-party local landowners (e.g. estates, wildlife trusts) who are willing to deliver biodiversity offsets, some of which will be 'shovel-ready'.

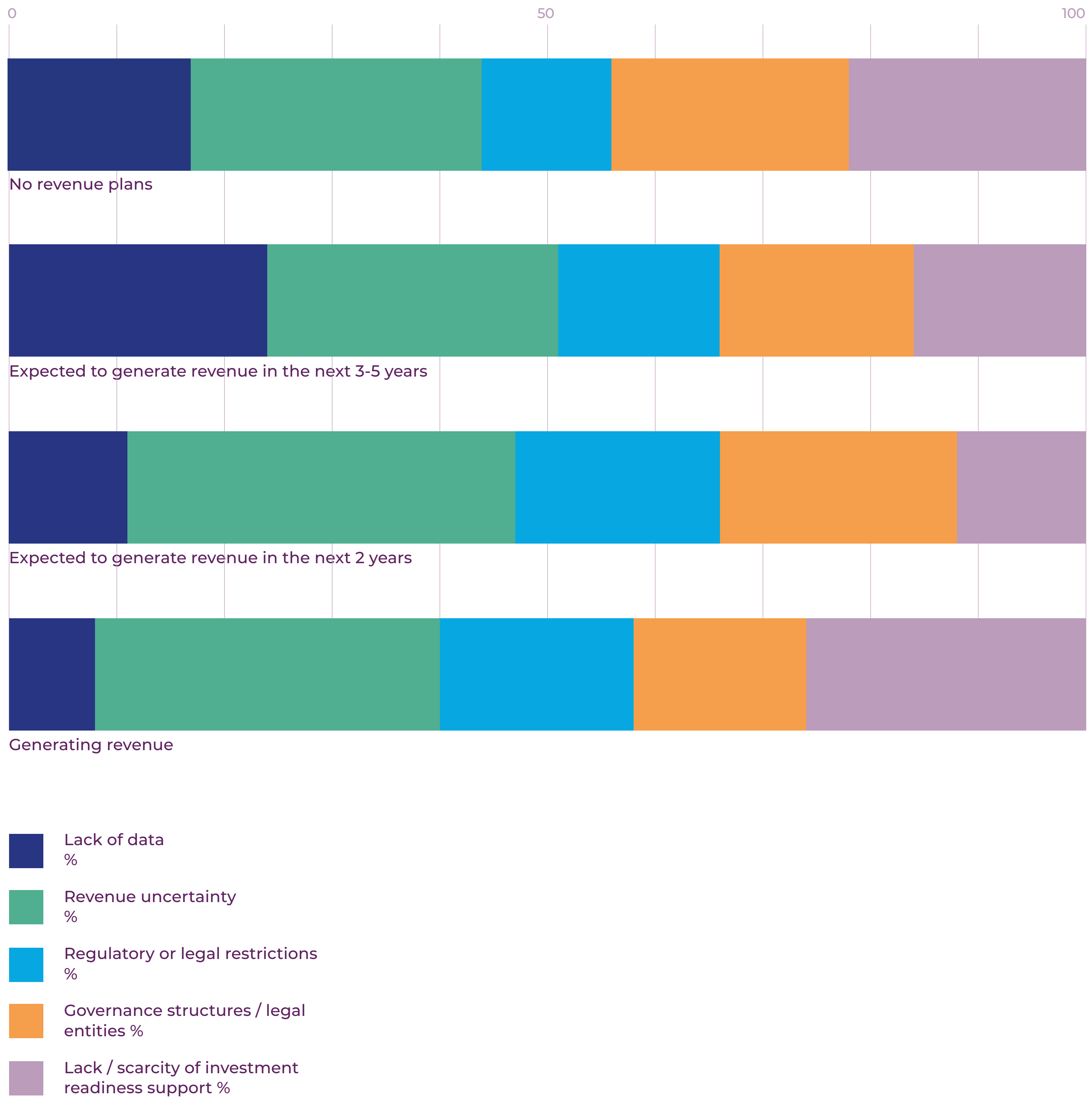
Revenue Model	*Sale of Biodiversity Units (BUs) from District Council or third party land to developers required to mitigate habitat lost during development.* *LDC charges an administration fee on top of transactions to provide ongoing funding for the scheme.*
Loan or Finance Structure	*Equity investment.*
Parties involved	*Lichfield District Council - Scheme administrator, provider of Biodiversity Units from public land* *Third-party landowners – Providers of Biodiversity Units* *Developers – purchasers of Biodiversity Units*
Environmental improvement	*The scheme provides a mechanism by which funding can be provided to restore valuable habitats, supporting Lichfield's wildlife*
Barriers encountered and how these were overcome	*Local Authority capacity and ecological resource.* *Few experts in new niche environmental law and legislation.* *Timescales involved were challenging.*

R19. RELATIONSHIP BETWEEN REVENUE GENERATION AND BARRIERS

The proportion of barriers reported by projects corresponding to their revenue plans.

"[The greatest barrier is a...] lack of **policy**, **governance** and **clarity** on future subsidy ecosystems in Scotland."

Private company,
EKN survey participant



"Length of project commitment required from some investors can be restrictive, particularly when over 30 years."

Project enabler,
Scotland

Lack of data was less of an issue as projects move towards revenue generation. Lack/scarcity of investment readiness support was unsurprisingly reported more frequently amongst those generating revenue than those expecting to within the next 5 years. It was also however significantly reported by many projects generating revenue.

'Revenue uncertainty' was the most common barrier reported across the five most popular revenue streams. The second most common barriers are reported here:

Revenue Stream	Second most common barrier
Biodiversity Unit sales	Availability of data
Carbon credit sales	Availability of data
Natural flood management payments	Governance structures / legal entities
Ecotourism	Governance structures / legal entities
Nutrient payments	Availability of data

PLACE-BASED PROJECTS | FINANCE AND FUNDING

R20. RELATIONSHIP BETWEEN INVESTMENT READINESS SUPPORT AND REVENUE GENERATION

A similar proportion of projects who are and who are not receiving Investment readiness grant support are currently generating revenue. However, the proportion of projects which expected to be generating revenue within the next five years was far greater amongst projects which were receiving investment readiness grant support than those who were not (60% against 45%). This meant that those projects receiving grant support were less likely to not be expecting to generate revenue in the next five years (15% against 31%).

- No revenue plans
- No, but is expected to generate revenue in the next 3-5 years
- No, but is expected to generate revenue in the next 2 years
- Generating revenue

R21. INVESTMENT READINESS SUPPORT AGAINST PROJECT STATUS

- Initial research
- Stalled
- Ongoing development

- *According to the results projects with investment readiness support are less likely to be stalled and more likely to be 'ongoing'.*

INVESTMENT READINESS GRANT SUPPORT

Those receiving investment readiness grant support included 60 NEIRF projects and 5 IRNS projects.

47%

Place-based projects were receiving investment readiness grant support

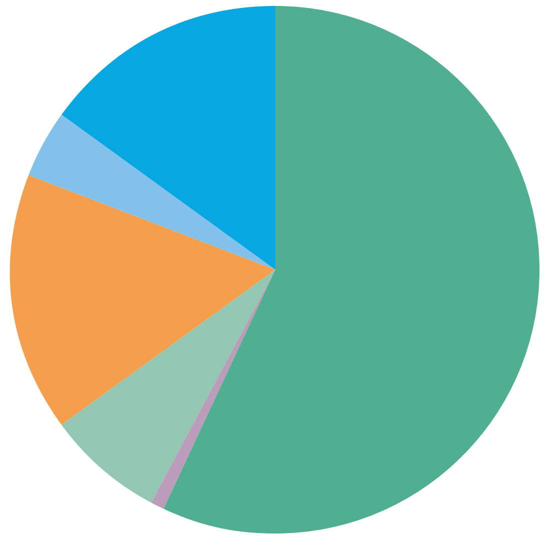
53%

Place-based projects were NOT receiving investment readiness grant support

R22. ROLE OF GRANT FUNDING

"Is the development or implementation of the project reliant upon funding from a government or charitable source?"

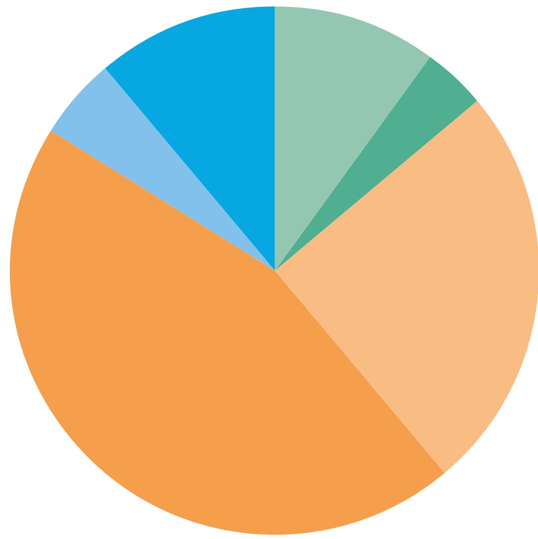
- Yes, successful application made and/or in receipt of grant funding (57%)
- Yes, unsuccessful application made (1%)
- Yes, awaiting decision of application (7%)
- No (16%)
- Expect to be applying for grant funding in the next 3-5 years (4%)
- Expect to be applying for grant funding in the next 2 years (15%)



R23. PROSPECTS FOR REPAYABLE FINANCE

"Is the development of the project fully or partially reliant upon repayable finance (i.e. debt or equity)?"

- Yes, currently seeking repayable finance (10%)
- Yes, repayable fiance has been secured (4%)
- Unsure (25%)
- No, not expecting to seek or be able to support repayable finance (45%)
- Expect to be seeking repayable finance in the next 3-5 years (5%)
- Expect to be seeking repayable finance in the next 2 years (11%)



Highlands Rewilding

Case Study	05
Location	Bunloit Estate, Beldorney Estate (north Scotland) and Tayvallich Estate (Argyll & Bute, west Scotland)
Size	Over 2,000 hectares owned with a further 170 hectares leased.
Habitats	Woodland (broadleaf, native conifer and non-native conifer), upland peat, grassland, river catchments and lochs, coastline and coastal wetlands.

> **“It is really exciting to see Highlands Rewilding’s next step forward. There are lots of eyes on it. It is what we need.”**
>
> John Uttley, Outcome Manager, Green Economy, NatureScot

Highlands Rewilding is a company with a mission to generate nature recovery and community prosperity through rewilding taken to scale. It aims to become a world leader in accelerating nature-based solutions that can help fight the existential and related crises of climate meltdown, biodiversity collapse, and social inequality, whilst helping to rebuild local economies.

To ensure an evidence-based approach, the company makes extensive use of satellites, drone-based sensors, ground-based sensors, eDNA analysis, and observational work by ecologists to generate natural capital data. This data then informs the design of interventions on the land, for instance the felling of monoculture conifer plantations to be replaced with native woodland or restored peatland.

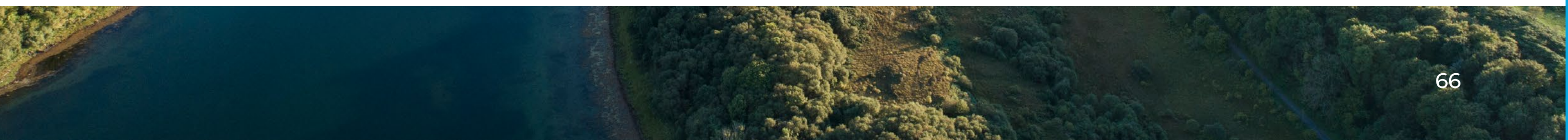
It is hoped that these projects will act as an exemplar to encourage other landowners to pivot their land management to net-zero and nature positive practises.

Whilst carbon credits form a part of the revenue model, biodiversity credits are expected to generate a greater return in the future assuming, as expected, that a strong biodiversity credits framework will emerge in Scotland.

Highlands Rewilding has worked closely with local community organisations, including the Cabrach Trust and Tayvallich Initiative, and have partnered with Bunloit’s local high school to lead a series of environmental science and outdoor education classes on the estate.

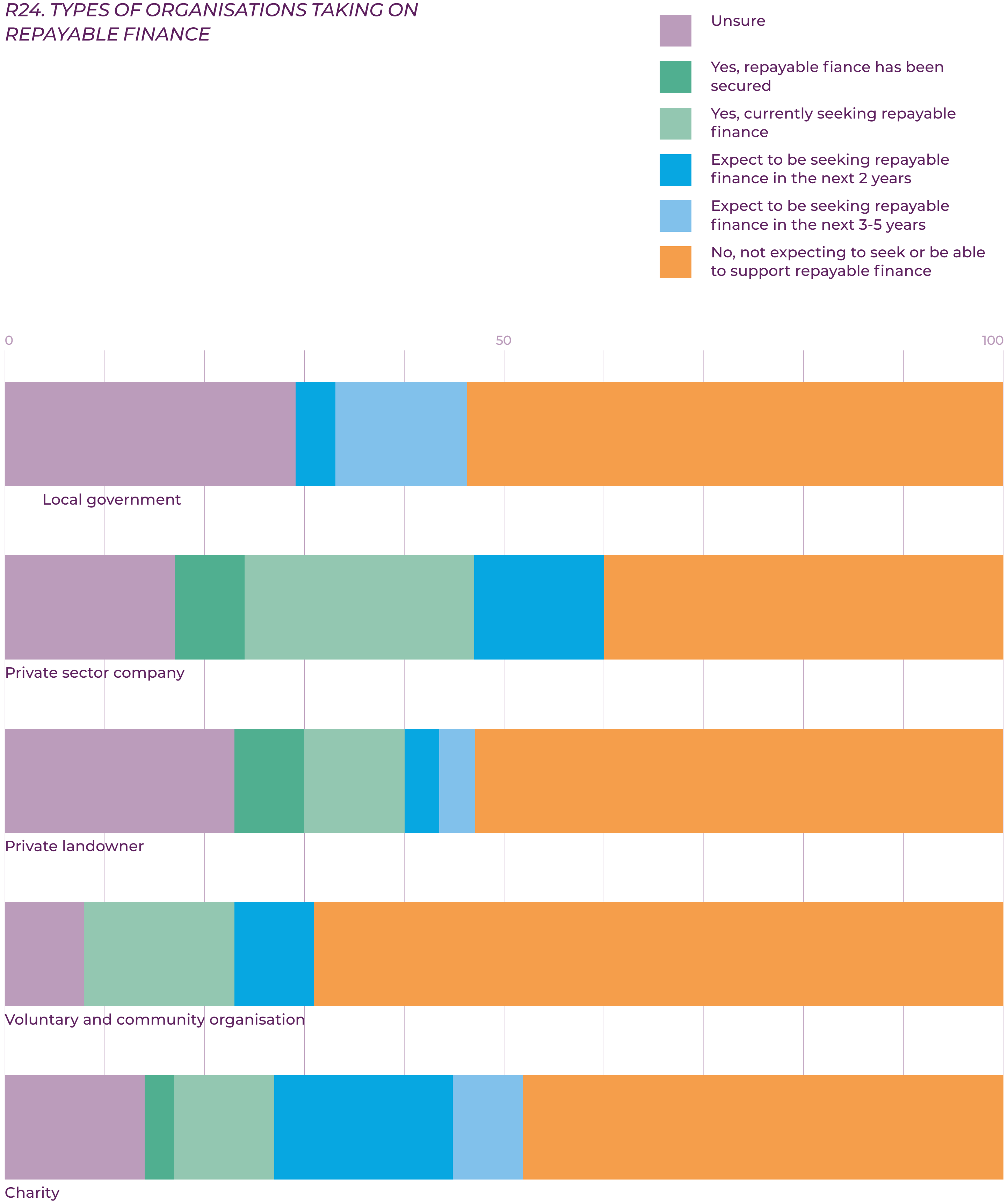
This emphasis on community is essential for both genuine social progress but also to provide a social ‘licence-to-operate’ with the local community.

Find out more at the Highlands Rewilding website.



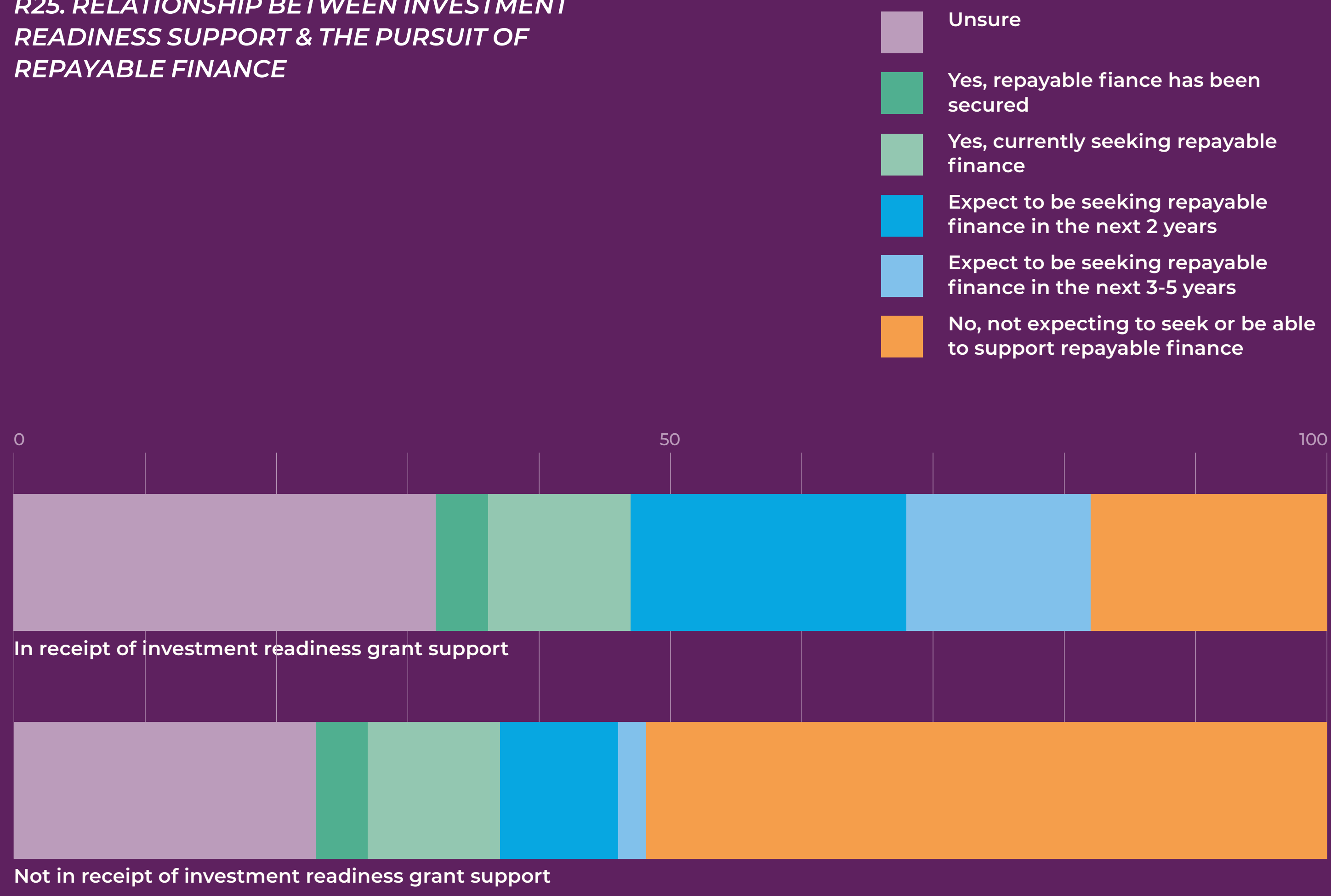
Revenue Model	*Ecotourism as natural capital opportunities are developed. Highlands Rewilding will sell high integrity Natural Capital credits, such as carbon and biodiversity credits (21% of expected revenue). Consultancy offering data-driven land management advisory services to other neighbouring landowners with an offer to share in monetisation of natural capital (55% of expected revenue).*
Loan or Finance Structure	*£7.6 million in equity investment was raised to start the company, from 50 Founding Funders. These are mostly HNWIs (High Net Worth Individuals) and family offices but include foundations, companies and one financial institution. With these funds Highlands Rewilding was able to purchase most of the Bunloit estate and almost all the Beldorney Estates.* *A £12m bridging loan was then arranged with the UK Infrastructure Bank for the purchase of the Tayvallich Estate, the first investment by UKIB for a natural capital project.* *A share offer for investors to co-own the company and its property assets (rewilding estates), forecasting a minimum 5% p.a. return on investment. More than 800 people have invested, with over 40% living in Scotland.*
Legal arrangements	*investors sign ‘Subscription Agreements’ which bind them to not selling their shares on to people who do not agree with their purpose and mission.*
Parties involved	*Partnership with a group of both local and UK-wide conservation organisations, academic institutions, ecologists and scientific specialists to develop surveying methods that will inform intervention plans and recommendations for rewilding. The 50 Founding Funders include many eminent business leaders, present and retired. This talent pool is used as a high-powered informal advisory board.*
Environmental improvement	*Focus on restoration of land, freshwater and marine habitats at scale. This includes the extremely rare temperate rainforest native to Western Scotland (on Tayvallich estate).* *Creation and regeneration of native woodland, restoration of peatland and other habitats, including species rich grassland, will increase biodiversity as well as sequestering carbon. Carbon sequestration through ‘blue carbon’ opportunities such as marine wetlands and kelp farms will also be investigated.* *Restoration of wetland and riverine habitats especially provide water quality improvements, improved water retention for natural flood management and reduction in wildfire risks. There is a particular focus on the Forest of Hope, a COP 26 legacy project, on Beldorney.*
Social impact and engagement	*Partnership and co-operation with local community groups, such as the Tayvallich Initiative; offering new opportunities for local people to connect with and work on the land, including the creation of many new meaningful jobs, training opportunities and internships on the rewilded estates; co-ownership of the company and land with local people through a community share offer (minimum investment of only £50); creation of local microenterprises, such as in kelp farming, regenerative farming or homebuilding; opportunities to create truly affordable homes by offering self-build or collaborative JV (Joint Venture) opportunities to local people on sites within the estates; and engagement with local schoolchildren teaching about environmental issues, bushcraft, outdoor conservation work and species identification.*
Barriers encountered and how these were overcome	*There were significant challenges for the company in launching a crowdfund for rewilding during a cost-of-living crisis. However, with a low minimum investment of £50, over 750 ‘citizen rewilders’ invested directly in the crowdfund to become co-owners of Highlands Rewilding, demonstrating a strong appetite for nature recovery.*

R24. TYPES OF ORGANISATIONS TAKING ON REPAYABLE FINANCE



Our analysis showed that private landowners and local government bodies are most unsure of taking on repayable finance. Voluntary and community organisations were least likely to have taken on, or expecting to take on, repayable finance. Private sector companies and private landowners were most likely to have taken on, or expect to take on, repayable finance

R25. RELATIONSHIP BETWEEN INVESTMENT READINESS SUPPORT & THE PURSUIT OF REPAYABLE FINANCE

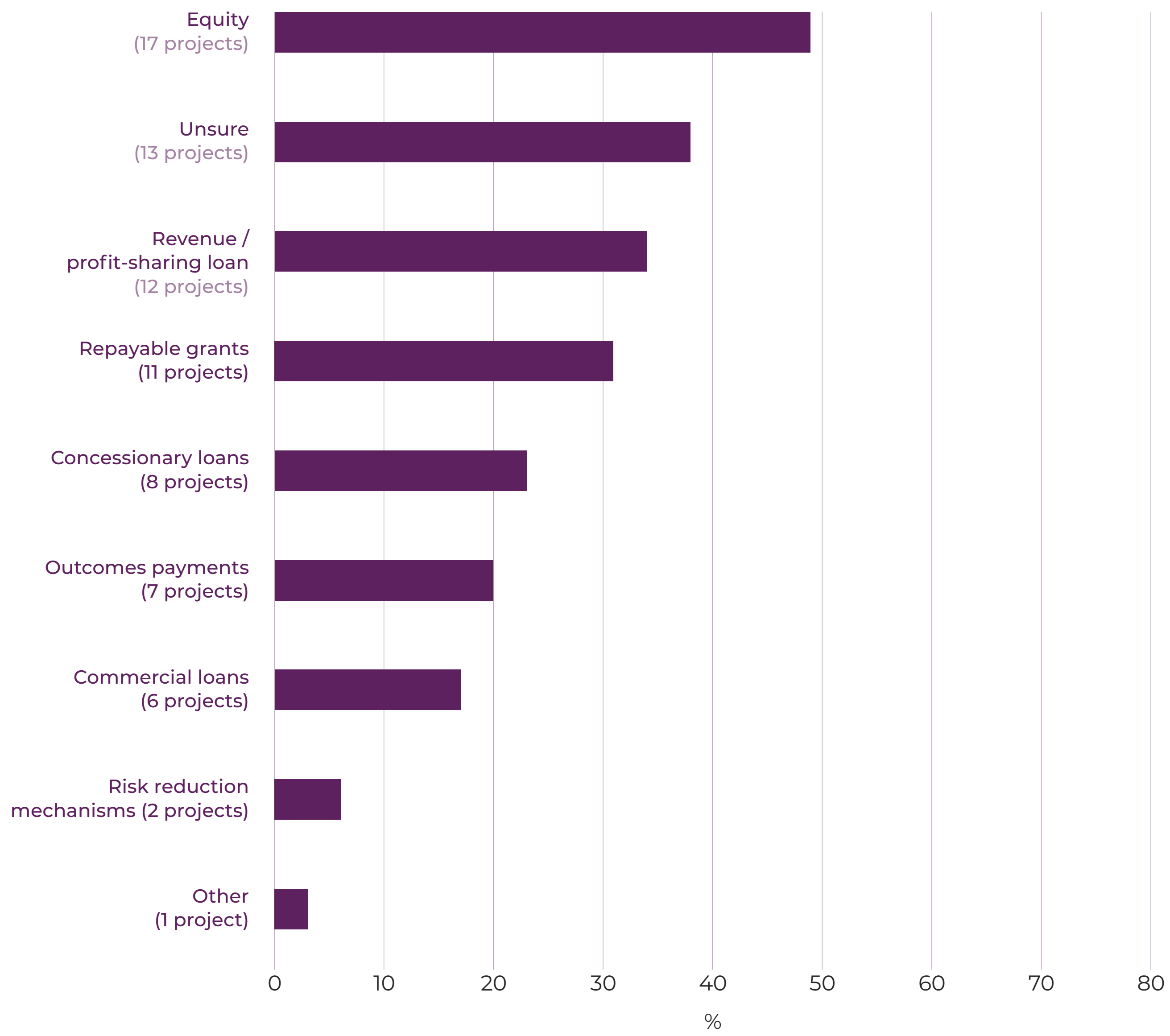


Note that only ten projects in receipt of NEIRF grants provided information on repayable finance. 72% of projects with investment readiness support were expecting to seek repayable finance. The equivalent figure for projects without investment readiness support was 47%.

R26. FINANCING MECHANISM

Definitions for types of repayable finance are available in the appendices.

A majority of respondents (65%) reported investigating – or having secured – more than one financial mechanism to deliver their projects. Equity finance was the most popular means of financing. Seven respondents (20%) reported investigating or securing outcomes-based payments.



R27. PROSPECTS FOR REPAYABLE FINANCE

A majority of projects participating in the survey were not planning to take on repayable finance. Those projects not generating revenue and not expecting to within the next five years were least likely to be investigating or have secured repayable finance. Of those projects for which there was data on both revenue generation and securing repayable finance, only four projects had secured repayable finance (three generating revenue, one expecting to generate revenue in the next two years).

Pembrokeshire Coastal Forum

Case Study	06
Location	Cleddau and Teifi river catchments, Pembrokeshire, Wales
Habitats	Grassland, arable farmland, woodland, and heathland, salt marsh, sea grass meadows, intertidal mudflats and maerl (a form of hard 'coralline' seaweed) beds.

PEMBROKESHIRE
PHOTOGRAPHED BY **DANIEL MORRIS** *PUBLISHED ON* **APRIL 8, 2020**

"Pembrokeshire Coastal Forum would like to see nutrient trading to play a role in continual water quality and environmental improvements while allowing development to play a role in restoration"

The Pembrokeshire Coastal Forum (PCF) is an award-winning Community Interest Company that works to protect the coast and marine environments for current and future generations to enjoy. It is a unique organisation providing independent stakeholder engagement, project development and facilitating partnership working. Our long term relationships with coastal partners have been built over the years on trust and understanding allowing delivery of innovative solutions to their coastal challenges.

There is a growing concern over the loss of biodiversity in the Cleddau Rivers and Pembrokeshire Marine SAC, with features in unfavourable conservation status and the reduction of nutrient loading into the designated bodies of water (nitrogen & phosphorus) has been identified as a key priority action.

PCF leads the 'Ecosystem Enterprise Partnership' project (EEP), which brings together a consortium of partners to create a new, innovative and collaborative approach to managing natural resources and enable sustainable development across Pembrokeshire. The work aims to develop and test the validity of a market-based nutrient trading scheme that provides a streamlined, consistent, robust nutrient assessment and mitigation process.

Since January 2021 development in SAC river catchments in Wales has been severely limited as a result of new phosphorus environmental targets within planning policies, which state that planning permission cannot be granted to new developments unless they can demonstrate that a development will have no adverse effects on the integrity of these special areas of conservation. To unlock the eight housing developments within the Pembrokeshire local development plan, it was calculated that 313kg of phosphorus would need to be removed annually to be 'nutrient neutral'.

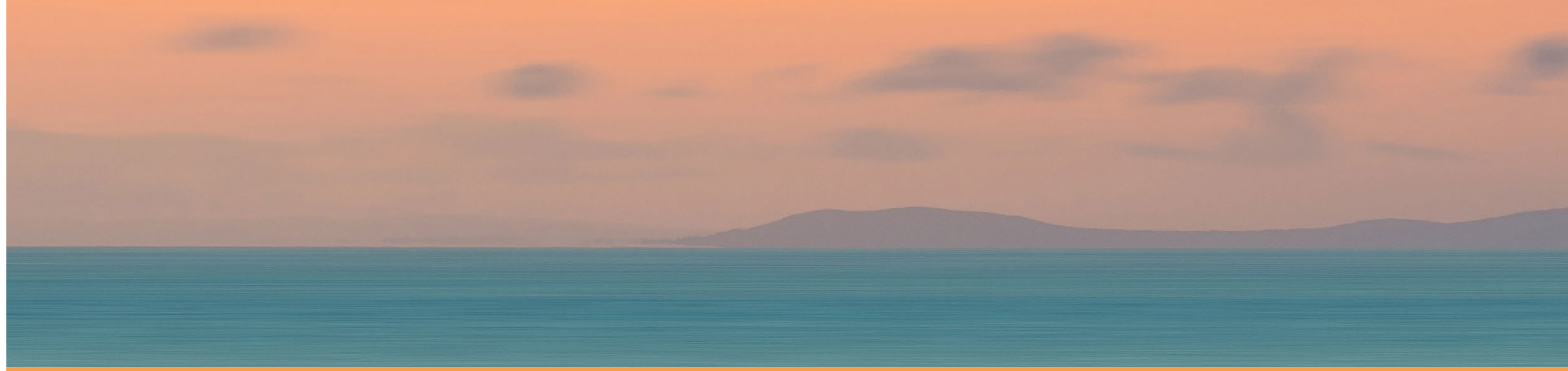
The EEP has created a development plan for a nutrient trading scheme within the Cleddau catchment that could remove up to 400 tonnes of nitrogen alongside between 4.6 – 7 tonnes of phosphorus over a five year period; the removal of the first 115 tonnes of nitrogen and first 1 to 2 tonnes of phosphorus costing in the region of £450,000 on farmer payments, and the remaining 285 tonnes of nitrogen and 3.6 to 5 tonnes of phosphorus costing in the region of £5 million for farmer payments.

The EEP will bring together housing developers and local land managers to find nature-based solutions to reduce the nutrient load on rivers and unlock housing development.

The strategy has involved the following stages:

- Calculating the source apportionment of nitrogen inputs across the catchment and the Phosphorus impact of new developments. Phosphorus impacts based upon methodologies used by Natural England and the Carmarthen Nutrient budget calculator.
- Modelling and mapping the 'nutrient loss risk' across the rural landscape and the potential mitigation measures to stop nutrients entering waterways. This was carried out in conjunction with neighbouring counties Ceredigion and Carmarthenshire. This information is hosted on a publicly available Land Use Planning Tool website.
- Design site-specific intervention opportunities to mitigate nutrient run-off designed to enable housing development to achieve planning, for example riparian buffers or Waste Water Treatment Works (WWTW) constructed wetlands.
- Planning guidance created for farm businesses wishing to expand are encouraged to look to their own land management and co-operative partnerships with other land managers to ensure development has no adverse effect on water quality.
- Run a concurrent education campaign amongst farmers to encourage good practise to reduce nutrient run-off.
- Develop proposals to create a nutrient trading market, to link buyers of mitigation measures (developers) with suppliers of services (farmers and other land managers) to reduce phosphorus and nitrogen loading into waterways.

Find out more at the Pembrokeshire Coastal Forum (PCF) website.

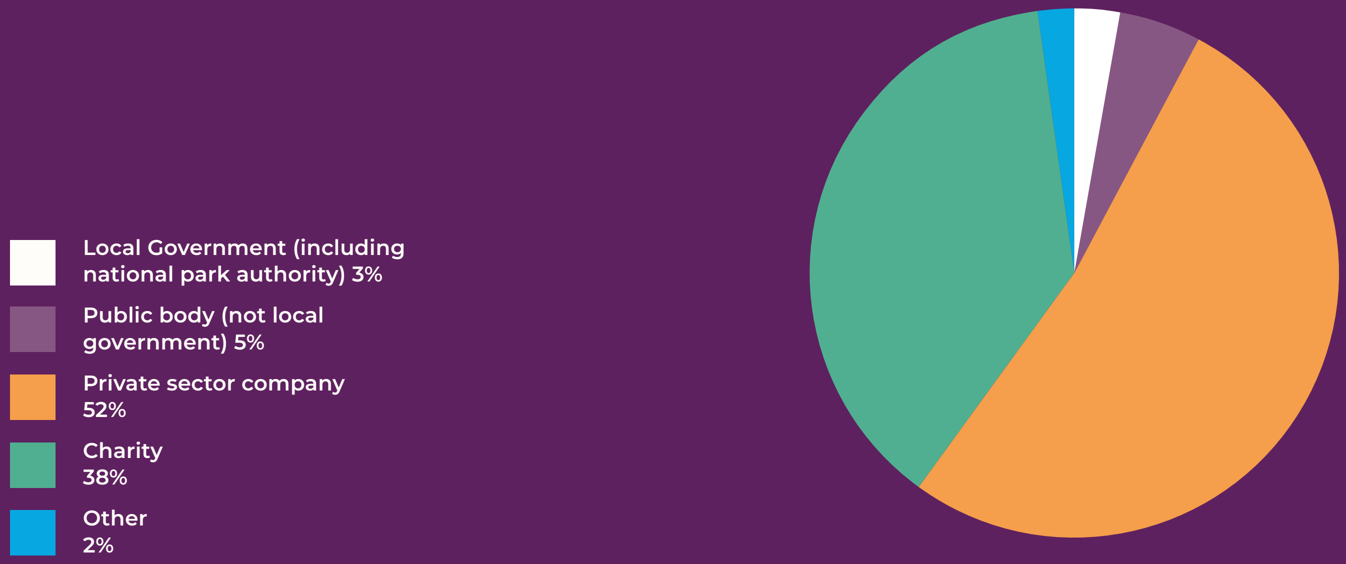


Revenue Model	*A trading platform where developers make payments to farmers and other land managers to undertake interventions to mitigate nutrient leaching and pollution.*
Loan or Finance Structure	*No repayable finance has been used to date.*
Public/Grant Funding	*Supported by the Welsh Government Nature Fund, Welsh Government Sustainable Management Scheme and the UK Government Community Renewal Fund (UK Gov.)*
Legal arrangements	*There have been no legal contracts sign or conservation covenants signed (yet).*
Parties involved	*Pembrokeshire Coastal Forum leads the Ecosystem Enterprise Partnership which is a partnership approach of a range of organisations including national and local government, public bodies, farming unions, farming co-operatives and private companies.*
Environmental improvement	*Reduction in nutrient and other pollution to the Cleddau River Special Area of Conservation(SAC) and Pembrokeshire Marine Special Area of Conservation. This is a fairly low altitude, and this moderate to low-gradient river catchment is home to a variety of wildlife including lamprey, and otters. These rivers lead into a diverse marine area containing reefs, mud and sand banks and lagoons. Reducing pollution will improve habitats for rare plants and animals such as seagrass, Atlantic salt meadows, otters and beds of maerl (a pink-purple coralline algae) as well as improving water quality and clarity for people.* *Interventions will also create new habitats and improve biodiversity within the river catchments, through the creation of riparian buffers such as scrubland and meadow habitats or constructed wetlands where appropriate.*
Economic and social impact	*Enabling the delivery of local housing in a rural area where over 400 homes are unable to achieve planning, playing a part in the growth of Pembrokeshire's economy while improving the environment of the Milford Haven and Cleddau River catchment.* *The platform will also create a more diverse and increased income for local farmers.*
Barriers encountered and how these were overcome	*Understanding the size of the problem and the proportion of the contributing factors was a challenge for PCF in itself. This was overcome by completing a source apportionment exercise related to nutrient inputs. There were also concerns that there would not be enough viable land management actions and nature based solutions to create a positive change in the natural environment. This however was tackled by completing 'nutrient loss risk mapping' and creating opportunity maps of mitigation options such as riparian buffers and constructed wetlands alongside catchment scale modelling of land management actions to reduce nutrient losses from farms. This has enabled a project development plan that has a spatial aspect with identified opportunities.*

ENABLER PROJECTS

The review analysed data from 36 projects classified as enablers; organisations that are supporting transactions between place-based projects and those providing them with finance.

ORGANISATION TYPE



Advisors, consultants and brokers represented 70% of the responses. The majority of enabler projects for which we had data (79%) involved private freehold land. 38% involved a designated landscape, 31% private leasehold land and 31% local authority area. 7% involved a marine protected area.

A greater proportion of enabler projects than place-based projects involved an urban habitat (30% against 16%).

STAGE OF DEVELOPMENT	%
'Ongoing'	65
'Initial research'	30
'Stalled'	5

43%

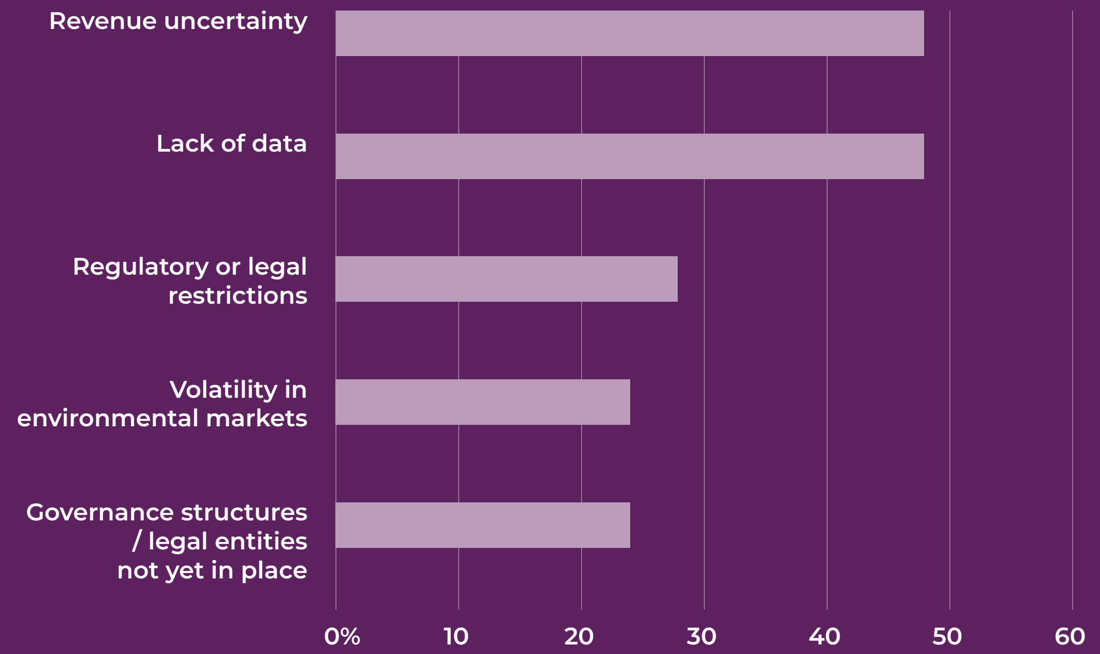
Enabler projects were receiving investment readiness grant support

57%

Enabler projects were NOT receiving investment readiness grant support

HABITAT FOCUS

BARRIERS TO PROJECT PROGRESS



FOCUS GROUPS

GROUP	KEY MESSAGE
Environmental groups (e.g. Wildlife Trusts)	• In order to ensure that nature finance applies to a wide range of habitat types, there is an urgent need to develop more standards for the trading of environmental credits. • Uncertainty of revenue levels in the future is holding back the progress of environmental projects. • Uncertainty over regulatory requirements is needed in order to unlock projects (especially with regard to nutrient trading and the additionality of projects). • Some projects are confused (and therefore held back) by the number of potential land management and revenue generation choices. • The appetite for shared learning is high. • There is a need for more knowledge of the legal and corporate procurement mechanisms that are needed for environmental market transactions. • Standardised legal agreements, contracts and financial models would be useful.
Farmer businesses and their advisors	• Revenue uncertainty is the main issue preventing farm businesses from pursuing nature finance. In connection with this, farm businesses are already managing many risks to their business. • Committing to any land use change is a huge risk, given that it could not easily be reversed and the implications for tax, land values and regulatory compliance are unknown. • Farmers only want to participate in high integrity environmental markets. • Farm businesses often feel like the scapegoat and do not see it as solely their role to mitigate the impacts of other organisations.

GROUP	KEY MESSAGE
Solutions providers (environmental consultants, environmental trading platforms)	• This group identified a common a perception amongst their clients and customers that nature-based projects are a 'nice-to-have' rather than serious, evidence-based courses of action worthy of financial innovation. • Projects of all sizes are needed to deliver on our ambitions. • Considerable human resource and money is needed to initiate nature finance projects. While schemes such as the NEIRF have been useful, additional and ongoing feasibility and early-stage funding will be required. • Collaboration is key; the impact and size of projects can be multiplied by accessing different buyers, buying multiple outcomes from the same project. • A strong regulatory framework is key to catalysing action. Net zero requirements have driven carbon sequestration activity. Regulation of utility companies has driven water-based markets. Similar rules are now required in other areas such as biodiversity. • The Woodland Carbon Code and Peatland Code are good, but development of other codes and standards are important to developing projects at a landscape scale. • More skilled and trained advisors are needed as well as standardised contracts for nature finance transactions.

Case Study	07
Location	The north of England
Size	Large-scale, across 74 local authority areas
Habitats	All major categories

Nature North

"Nature North exemplifies the large-scale partnership working that it is increasingly clear is vital for meeting the huge challenges at hand, including the climate crisis and on-going depletion of the natural world. It has huge potential in driving forward the significant investments needed to achieve Nature recovery, not only benefitting wildlife, but also creating jobs, economic renewal and contributing to people's wellbeing."

Tony Juniper, Chair of Natural England

Nature North is a large-scale collaboration between public, private and third sector organisations in the north of England, formed to drive public and private sector investment into nature's recovery at a strategic scale in order to create a thriving environment and narrow regional inequality.

Nature North aims for nature to be acknowledged by policymakers, the public and businesses as key to the prosperity, wellbeing and resilience of communities in the region to climate change.

The consortium has identified areas where investment can be deployed at scale into nature-based projects. Aggregations of projects and partnerships will centre around seven themes or 'investable propositions':

- The Northern Forest (> 10,000 square miles)
- The Great North Bog (2,700 square miles)
- Green Northern Connections
- Liveable Northern Towns and Cities
- Thriving Coasts and Estuaries
- Resilient Farming North
- Healthy Northern Rivers

The hope is that this collaborative work and investment will generate green jobs, boost biodiversity, enhance water quality, improve the health of the population, reduce flooding, support climate change adaptation and help attain net zero.

For more information, visit: Nature North's website.

Revenue Model	*The revenue model for the investable propositions is in development and aims to offer multiple benefits through nature-based solutions. They are likely to involve natural capital credits, ecotourism, and new enterprises.*
Loan or Finance Structure	*This is in development in conjunction with the revenue model, but investable propositions will need to attract private finance as part of the mix of funding in order to deliver at scale.*
Public/Grant Funding	*The National Lottery Fund and the Esmee Fairburn Foundation provided £500,000 to catalyse Nature North until the end of March 2025.*
Legal arrangements	*These will be developed specifically for each investable proposition.*
Parties involved	*The steering group consists of public bodies, conservation and wildlife groups, regional and national charities, funders and local delivery partners. There is also an advisory group consisting of businesses, community groups, nature finance, health and education representatives.*
Environmental improvement	*Carbon sequestration: It is estimated that the 50 million trees in the Northern Forest has potential to absorb up to 7.5 million tonnes of CO2 by 2050. Currently, it is estimated that 4.4million tonnes of CO2 is released annually by damaged peat in the Great North Bog area which the programme is aiming to reverse.* *Flood regulation: Nature Recovery through Natural Flood Management is recognised as a cost-effective approach to address flood risk and will play a significant role in reducing and mitigating this risk.* *Water quality: Restoring ecosystems across catchments in the North will restore natural functions which will result in high quality raw water and reduced water treatment costs.* *Biodiversity: Nature Recovery will play a key role in improving the condition and connectivity of out habitats and improving species diversity and abundance.*
Economic and social impact	*Placemaking: placemaking, including green spaces will be a key part of the development of place-based economic resilience.* *Green jobs: Nature Recovery will play a key role in generating green jobs in the North of England, often in economically vulnerable areas.* *Health and wellbeing: New nature-based projects in the north of England will mitigate pollution and create improved health outcomes, with the greatest benefits often being seen in the most deprived communities.*
Barriers encountered and how these were overcome	*Engaging with existing networks, and adding value to work already happening;* *Continuing to keep the overarching strategy in mind as the detail develops* *Building a strong spatial evidence base over the vast target area;* *Effectively engaging with a wide range of communities, especially those in deprived areas*

4

BOURNEMOUTH
PHOTOGRAPHED BY
ROBERT BYE
PUBLISHED ON
NOVEMBER 12, 2018

DISCUSSION

IDENTITY OF THE PROJECT PIPELINE

The fact that registered charities represented the largest proportion of respondents in the survey (30%) provides an indication of the exploratory state of the nature finance pipeline in the UK. Charities typically have greater capacity to explore new ways of funding and financing the public benefit that they have a duty to deliver. It is also possible that they are more likely to be aware of investment readiness funding because of their traditional reliance on grant income. By accessing this support, they are more likely to have nature finance projects that they are willing to report in Reviews such as this.

Private landowners were much less well represented in the survey than charities (21%). This is significant because this group has management control of the majority of land in the UK. Three fifths of the land in England and Wales is owned by private individuals, for instance. The disproportionately low level of representation by private landowners in the survey is likely to be a result of both their willingness to participate, as well as the absolute number of landowners currently pursuing nature finance.

Focus group discussions and qualitative comments provided in the survey identified that many landowners are wary of the untested sources of income that could be obtained through nature markets. The sale of ecosystem services typically requires landowners to make commitments lasting many decades. Any repayable finance or investment is also likely to require commitments of at least five years. In addition, the tax implications of financial transactions not defined as agriculture or forestry are currently uncertain.

Membership organisations that support land managers are taking steps to help their members understand the challenges and opportunities of environmental markets[1-2]. In addition, NatureScot (Scotland's public body for nature conservation and restoration) has published guidance for land managers on nature finance[3]. The survey results suggest that, despite these efforts, much more work is needed in order for them to be convinced of the opportunity cost of pursuing new sources of private money for environmental improvement.

Only 3% of entries in the Review survey were from tenants. This is significant given that tenant farmers (and tenant crofters in Scotland) play a very important part in land management in the UK. In England, for example, whole or part tenancies represent nearly two thirds of the land area where farming can take place. Given the uncertainty and opportunity cost associated with becoming a seller in nature markets, it is not surprising that those who manage land but do not own it are less likely to have engaged with the survey (and in nature finance itself). Both the survey findings and focus group discussions highlighted several barriers specific to tenants participating in ecosystem service markets. These include:

- The relationship between tenants and landlords, which is sometimes not cordial.
- Lack of clarity on who has rights to ecosystem service credits that are generated through environmental improvement actions.

While place-based projects included in this review represented all major habitat types, there were relatively few (20%) that encompassed marine areas. This result can be explained in part by the very different ownership and licencing arrangements for seabed and activity in the marine environment as opposed to land[4]. Activities such as seaweed harvesting and aquaculture must be licenced.

BEACHY HEAD, EASTBOURNE
PHOTOGRAPHED BY **JOE GREEN**
PUBLISHED ON **NOVEMBER 30, 2022**

NOTES

1. See, for example the NFU's 5 key principles for Environmental Markets.
2. These organisations include the CLA (England and Wales), Scottish Land and Estates, The Central Association for Agricultural Valuers and the farming unions operating in each UK jurisdiction.
3. NatureScot's guidance on nature-based finance opportunities for Land Managers in Scotland.
4. The Crown Estate owns the territorial seabed out to 12 nautical miles and around half of the foreshore around England, Wales and Northern Ireland. Crown Estate Scotland performs an equivalent role within its jurisdiction.

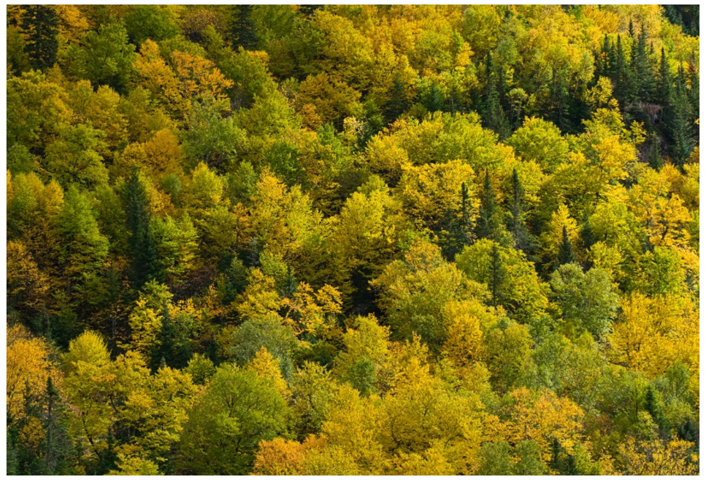
This may make it harder to sell ecosystem service credits. The low level of marine representation can also be explained by the fact that the evidence for the economic value of habitat restoration in the marine environment is less developed than for the terrestrial habitats. The same applies to scientific understanding of carbon sequestration.

The low level of representation from urban projects in the survey responses (16%) is most likely to be due to the complexity of these environments in terms of land ownership and tenure. The benefits from natural features in urban areas are shared by many. Examples are the cooling effect of street trees during summer heat episodes and the role of wetland and urban waterways in reducing local flood risk. This 'free rider' effect will inevitably make it more difficult to attract new finance for these features. While local government is sometimes a significant landowner, its willingness to attract private finance for natural infrastructure (such as through the Public Works Loans Board) is not the same as it is for built infrastructure and 'low carbon' engineered technology.

The place-based projects that participated in the survey were not evenly distributed between UK jurisdictions. Considering land area, England was overrepresented in the survey (85% of place-based projects). In the same way, Scotland, Wales and Northern Ireland were underrepresented[5]. The following factors may explain some of this geographical variation:

- The presence of compliance markets in England for offsite Biodiversity Net Gain and the requirement in some localities for nutrient neutrality for built development[6].
- The direct and indirect impact of the Natural Environment Investment Readiness Fund (England) and the four pilot projects to encourage sustainable private sector finance for environmental improvement that preceded this[7].

Awareness of nature finance is also likely to be a



factor in the geographical spread of projects (and participation in the survey). This relates to the need for nature finance and the enterprise opportunities that it may provide. In particular, the Scottish Nature Finance Pioneers group has played a role in prompting dialogue and information-sharing on nature finance in Scotland, along with the '£1 Billion Challenge' conservation finance blueprint that was published by Scottish Wildlife Trust and the Scottish Environmental Protection Agency in 2020.

The presence of many more projects in Scotland than Wales or Northern Ireland may be explained in part by the public communications of Scottish Government and its delivery agencies to the question of private finance for environmental restoration. This includes research and the publication of the Interim Principles for Responsible Investment in Natural Capital[8]. Several regional enterprise agencies in Scotland have also taken a proactive approach to nature finance. The Facility for Investment Readiness in Nature Scotland (currently open to applications) is expected to increase the number of nature finance projects in Scotland over the coming year.

Local capacity to sustain shared learning on nature finance is less strong in Wales and Northern Ireland than in England and Scotland.

"The landlord-tenant relationship is sometimes not easy. Tenants may not be confident to share data about environmental improvement with landlords (and buyers). They are concerned that the benefits of nature finance will not flow back to them."

Focus group participant

NOTES

5. While Scotland has 32% of the land area of the UK, Scottish place-based projects represented only 16% of the total included in the Review. Likewise, Wales occupies 9% of the land of the UK but only had a 5% share of the number of projects in the review.
6. Nutrient neutrality means ensuring no overall increase in the loss of nutrient to water bodies as a result of built development. Biodiversity Net Gain is a process to compensate for biodiversity losses through built development that are deemed to be unavoidable, adding some measure of additional 'gain'.
7. The Esmée Fairbairn Foundation's 'Raising new money for nature' initiative.
8. The Scottish Government's Interim principles for responsible investment in natural capital.

LYMINGTON, NEW FOREST
PHOTOGRAPHED BY **NICK FEWINGS***PUBLISHED ON* **SEPTEMBER 30, 2019**

The low number of nature finance projects in Northern Ireland (four) needs to be understood in the context of this being a jurisdiction where agricultural production is a much-valued part of the economy (as well as in food security for the rest of the UK). This focus on food production may limit the level of interest in alternative sources of income. Northern Ireland was the site of an innovative programme ten years ago to fund peatland restoration to improve the quality of water used for drinking water production as well as deliver benefits for carbon and biodiversity[9]. Despite detailed appraisal of the economic benefits of this programme, the opportunity of finding private finance to secure peatland restoration and other environmental benefits has not yet been explored in Northern Ireland. Northern Ireland's Nature Investment Plan, which was published by RSPB in 2023, seeks to change this.[10]

During the course of this Review, EKN organised three workshops in Wales on the resourcing of the Sustainable Management of Natural Resources (a legally-binding set of principles for management of land, water and nature). Participants in these events expressed high levels of concern about equitable distribution of the benefits arising from private finance for the restoration of land, water and nature. The protection of the livelihoods of small farm businesses was also viewed as a priority by many participants.

"The biggest challenge is bringing numerous landowners together around a plan for nature recovery of sufficient scale to reverse nature's decline and meet investor ambition"

Environmental charity, southern England

Survey results regarding the geographical area encompassed by nature finance projects needs to be interpreted with caution. The largest projects do not necessarily encompass a contiguous area of land (many relate to aspirations for nature finance to extend across landscapes). Nonetheless, the fact that over one third of place-based projects participating in the survey (37%) were greater than 1,000 hectares is significant. This tendency towards larger land areas could also reflect the fact that up-front costs and risks associated with developing nature finance projects were especially significant barriers to smaller projects. Projects encompassing less than 120 hectares were much less likely to be in receipt of investment readiness support.

Most place-based projects participating in the survey include more than one habitat type. This complexity is a characteristic of the UK nature finance project pipeline. While the complexity means that the projects are more resilient, it makes them more challenging to quantify and deliver (carbon codes currently relate only to individual habitat types). The focus groups highlighted that land managers do not wish to spend time registering different habitats with carbon codes.

NOTES

9. Garron Plateau Bog Restoration Project, Antrim, led by Northern Ireland Water and RSPB in association with the Northern Ireland Environment Agency. Funded by the Interreg Europe Programme and government in Northern Ireland.
10. RSPB Northern Ireland (2023) Nature Investment Plan for Northern Ireland.

REVENUE PROSPECTS

Of the projects surveyed in the first review of the UK nature finance project pipeline in 2020, 28% were “generating revenues or accessing funding from beneficiaries for actions to restore or protect natural features.”[11] The present Review yielded a comparable result, with 24% of projects currently generating revenue. (The present review asked about revenue only, not any other type of funding from beneficiaries such as corporate responsibility donations.)

Among the place-based projects included in the Review, voluntary and community service organisations (VCSOs) and registered charities were the most likely to report that they were generating revenue or are expecting to do so within the next two years. It is important to consider that the project pipeline is not yet sufficiently mature to test the credibility of revenue expectations, especially among organisations that typically rely on grants rather than trading for their income.

The fact that fewer projects involving marine habitats were currently generating revenue than those based entirely on land can be explained by the fact that compliance schemes for Biodiversity Net Gain and nutrient neutrality in England don’t include projects subject to marine spatial planning.

An argument used in support of the development of nature markets is that they have the potential to offer new income opportunities for land managers.[12] The results from this Review demonstrate that all parts of the UK are at a very early stage in making this income become reality. This is especially the case among private landowners and tenants. Based on the findings of this Review, there is no evidence that ecosystem services sales will become a major part of farm or other rural business income in the next five years. This does not, however, diminish the significance of some projects from an environmental improvement, business resilience and social benefit point of view.

Focus group participants highlighted those challenges central to rural businesses, of making income from nature markets. One focus group participant with insight into the business models of large rural estates expressed the view that biodiversity and carbon credits remain a “sideshow” in relation to income from grouse shooting and other more traditional forms of revenue such as the sale of food.

With the public funding environment post-Brexit changing concurrently with developing nature markets, survey respondents raised technical questions about combining different private transactions and public payments.

Participants in the Review identified the need to stimulate demand from buyers of ecosystem service credits. Although engagement with buyers is identified as an important milestone in the Green Finance Institute’s Investment Readiness Toolkit, only 37% of respondents had reached this stage. One of the principles behind the Landscape Enterprise Networks approach (one of which is included in the review) is to start by mapping local demand for ecosystem services and then to looking for organisations that may be able to sell these services[13]. It is apparent that this demand-led approach is not yet widespread among nature finance projects (even though many are considering who their buyers might be as one part of their business planning). As indicated by the following quote, potential buyers are not necessarily ready to engage in dialogue about what their needs are.

The key points identified can be summarised as follows:

- There is optimism among projects in England and Scotland that opportunity to sell biodiversity credits through voluntary or compliance markets will grow.
- Voluntary carbon credits on land are viewed as the most mature and established source of revenue. There is, however, concern that their sale often involves trade-offs with other land uses and that currently the revenue available does not compete with traditional uses of land.
- Both biodiversity unit sales, nutrient payments and natural flood management payments are heterogeneous in distribution. They are driven by local demand for developers or utility companies to fulfil statutory requirements. Project development.

NOTES

11. Esmée Fairbairn Foundation (2020) Emerging funding opportunities for the natural environment. Completed by Finance Earth and Ecosystems Knowledge Network.
12. UK Government (2023) Policy Paper on Nature Markets.
13. For example Landscape Enterprise Networks (LENs).

“Engaging private sector buyers to create a revenue stream is the biggest challenge for all nature based projects”

Nature Finance Advisor, England

SCOTLAND *PHOTOGRAPHED BY* **ALEX LVRS** *PUBLISHED ON* **AUGUST 17, 2021**

PROJECT DEVELOPMENT

The Review results show steady progress of place-based projects through the steps in the Green Finance Institute's Investment Readiness Toolkit. Only 12% of respondents said that they were not working with any intermediaries and the importance of trusted, experienced and knowledgeable advisors in delivering nature-based projects was often referenced in focus groups and in the survey responses. This is particularly true for small farm businesses which may have very limited resources. A lack of experience, capacity or knowledge was referenced in 16% of qualitative comments received via the survey.

Projects within the review reported a need for advice on:

- Regulatory and technical aspects of land management, farming, and biodiversity
- Commercial and financial aspects of project development

Often, projects need qualified advisors to carry out the project development work itself, rather than to simply provide analysis or advice at arm's length.

Projects that have reached the more advanced milestones of the Investment Readiness Toolkit are more likely to generate revenue. Uncertainty about prices, demand, market rules, taxation, and land valuation were themes which consistently emerged in focus groups and in qualitative comments.

Revenue uncertainty was the most common barrier reported in relation to delivering nature-based projects (52% of projects). Given the uncertain price of carbon in voluntary markets, and the unknown revenues possible from other ecosystem service credits, projects and consultees often reported feeling paralysed by the number of choices available to them. Members of focus groups pointed out that whilst sale of an ecosystem service could generate revenue, it can also serve to turn a land asset into a perceived liability. Reasons for this included ongoing maintenance costs and contractual ties.

There was a particular nervousness amongst land managers of "selling the crown jewels early". By this, they meant the selling of ecosystem service credits at a relatively low price now, even though there may be surges in demand (and therefore price) in future. Anecdotal evidence was presented several times, that in some cases, an expectation that carbon offsetting would be so much more lucrative in the future was arresting simple actions being taken, so that these could be monetised at a more opportune moment. These potentially represent examples of carbon markets actually restricting nature restoration work, not enabling it.

Farmers and those advising them frequently expressed the concern that changes in land use and management to enhance ecosystem services would take land out of food production.

Availability of data was the second most frequently reported barrier to project progress (31% of projects). This finding mirrors that identified in the Recommendations Report of the Financing Nature Recovery UK initiative, which gathered the views of a range of stakeholders on many aspects of how to ensure the development of high integrity nature markets in the UK.[14] In this Review, the perception that data were not available was especially the case among small organisations, such as small farm businesses and VCSOs. Further work is needed to identify what these data requirements are. In many cases it may be about bringing existing geographic, farm payment and environmental data down to the field scale, as is being pioneered by The Land App[15] and other technology providers.

NOTES

14. The Financing Nature Recovery UK initiative.
15. The Land App.

"Through central government funding we connected with [a consultant in this field] so have been brought up to speed, but many don't have this funding available to spend on consultants."

Survey respondent, local authority

"Why would I sell my carbon now when I don't know how much it will be worth next year? I don't know what is coming around the corner."

Farming advisor

"Land agents are very suspicious of nature-based schemes and are advising farmers to steer clear."

Environmental consultant

"Most farmers don't want to be parkkeepers, they want to be producing good quality, homegrown food but are happy to create environmental improvements at the same time."

Farming advisor

Focus group participant

"Nature markets don't work for land which has been maintained to a high environmental standard. It favours land that has degraded quality."

Anonymous survey respondent

"A big barrier for us is insufficient data to place a value on carbon credits"

Environmental consultant, Northern England

"Need more stability and a more cohesive approach to measuring Environmental Net Gain to demonstrate economic case for Nature based land management."

Local authority, southern England

"There is a lack of clarity over whether new agri-environmental support payments can be stacked with grants and Biodiversity Net Gain Payments."

MARKET INFRASTRUCTURE AND RULES

The need for additional codes and standards which would recognise a greater range of habitats and interventions and form the basis of diversified nature markets was also highlighted by projects participating in this Review.[16]

A number of new carbon codes are under development and were included in the survey as enabler projects. This includes the Saltmarsh Carbon Code and the Hedgerow Carbon Code. Another enabler project, Wilder Carbon Standard, is now operational and proves a standard for nature-rich carbon credits (see Honeygar Farm case study, pages 38-39). Examples of additional needs identified were:

- Technical standards for natural flood management projects
- Agreed ways of measuring carbon sequestration in marine habitat such as kelp beds (kelp is a type of seaweed)
- For the Peatland Code to validate lowland peatland sites that have been farmed.

29% of projects (both place-based and enabler projects) reported that regulatory or legal restrictions were a barrier in the development of nature finance. Survey comments and focus group discussions identified ongoing uncertainty whether agri-environment support from government would discourage land managers from selling certain ecosystem service credits to private buyers. There is also a need for a comprehensive set of rules about stacking and bundling; situations where ecosystem services are sold from the same area of land or water.

Focus groups and other consultees also frequently expressed confusion about the additionality rules often required during sales of ecosystem services. In addition, they expressed concern that additionality rules will mean that there is little revenue available for habitat which are already in good condition. This was particularly prevalent with participants in Wales, who referenced the presence of peatland in good condition on small farms. There is a need to reward the efforts of farmers to protect peatland.

Another concern expressed was the possibility of new habitat supported through nature finance being designated as a Site of Special Scientific Interest. The site would then need to be managed in compliance with Natural England regulation, meaning no additionality could be shown and, thereby, exclusion from future nature markets.

There was concern and confusion from land managers and landowners about their own requirements to 'inset' their own operations and therefore affect the amount of biodiversity and carbon credits they could sell to others. This is particularly true of farmers, who are aware of their likely future obligation to become carbon neutral, alongside the net zero targets of organisations they supply to.

NOTES

16. Standards relate to the quality of specific procedures, such as in measurement. Codes specify standards that should be used, as well as agreed ways of measuring and registering ecosystem service credits.

LONG-TERM COMMITMENTS

15% of projects reported discomfort at the timescales involved with engaging with environmental markets. One farmer in a focus group referenced an agreement with a regional water company for five years' worth of activity as straightforward and easily understandable. In contrast, most transactions in nature markets require much longer commitments (30 years for Biodiversity Net Gain in England and 100 years for projects registered with the Woodland Carbon Code). Given the uncertainty about the policy environment and levels of revenue in the future (above), many land managers are cautious about making such long-term commitments. In the case of woodland creation for instance, this represents a permanent land use change.

Issues around timescales were particularly acute amongst tenants. They reported that tenants often felt that they would be carrying out the work, but would be unlikely to see the direct benefits in terms of increased revenue or land value.

Just under a quarter of projects (23%) reported concern about losing existing allowances and benefits provided by government. This finding was backed up through comments made by projects and in focus groups.

PERCEPTIONS ABOUT PRIVATE FINANCE

Whether public, private or third sector, decision makers in organisations representing the nature finance project pipeline hold values and perceptions that will govern their willingness to participate. This includes their level of aversion to risk, and their views on a shift in the finance and funding of environmental improvement. These included concerns about how finance and widescale land management changes would affect land ownership, local heritage and community cohesion. In Wales, there is a particularly acute level of concern about the equity of nature finance and ensuring that project benefits do not 'leak' elsewhere. Additionally, respondents and consultees frequently expressed unease and bitterness about offsetting emissions (usually related to carbon, but at times also related to BNG) and pollution from companies who were seen as not doing enough themselves, i.e. that investment in nature recovery should not give a blank slate to destructive activities elsewhere.

LOCAL COMMUNITY OBJECTIONS/RESERVATIONS

It is encouraging that natural capital projects only rarely reported concerns or objections from the local community (7% of projects).

INVESTMENT READINESS SUPPORT

Our analysis shows that those projects in receipt of investment readiness support funding were roughly equally likely to be generating revenue. However, this group was much more likely to expect to generate revenue within the next five years. These projects were also less likely to reported being 'stalled' or in the 'initial research' phase, were more likely to have taken on or be seeking repayable finance and were less likely to state that they were not expecting to either generate revenue or seek repayable finance.

This provides preliminary evidence that investment readiness funding is an important factor to support project development. 28% of projects identified

Welsh livestock farmer, focus group participant

"You are jumping into bed with people with whole legal teams and that is quite scary"

Public body, survey participant

"In investor negotiations, finding an appropriate balance of risks and liabilities among all parties. Nature is unpredictable - who loses out when things don't go to plan?"

Rewilding project, England

"Impact lending is relatively easy to set up and immediately effective to enable land acquisition for nature recovery and climate action. Lenders don't need to be banks. We think it is an under-recognised and under-used mechanism."

FINANCE AND FUNDING

investment readiness support as a barrier in the development of their project. Whilst larger landowners or national organisations may have their own resources to put into early stage, 'pre-revenue', feasibility work, many smaller groups will not. This review identifies the need for ongoing early-stage funding to support and reduce the risk of projects at the feasibility stage. A lack of investment readiness support was more often reported as a barrier in Scottish projects than English projects (14% against 10%). This gap may narrow in future years with the introduction of the larger FIRNS investment readiness programme in Scotland.

GRANT SUPPORT

Over three quarters (84%) of projects have, or will soon, apply for grant funding. This is a considerably larger proportion that those who have applied for repayable finance which is consistent with an emerging or immature market. This suggests that grant funding will remain an important part of any funding package for nature-based projects for the foreseeable future.

REPAYABLE FINANCE

Survey respondents and focus group attendees consistently referenced the perception of a large 'wave' of institutional capital ready to be invested into natural capital. Whilst most agreed that large amounts of private capital were required, there was also scepticism about the role that large financial institutions would play (explored in barriers section above).

Repayable finance was being used or sought out by a minority of projects in the review (only 30% had either secured it, were seeking it or expecting to seek it within the next five years).

This trend was particularly noticeable in among VCSOs and local government. These findings could reflect a lower willingness by investors to invest into these type of organisation. However, the lower proportions of these organisations seeking, as well as securing, repayable finance suggests other reasons at play as well. This could include attitude to risk and the availability of alternative grant funding.

REPAYABLE FINANCE AS A TOOL TO ENABLE REVENUE GENERATION

As nature markets mature, debates will continue as to the importance and role of repayable finance and investment within them. To date, policy makers, intermediaries and investors have placed a large focus on projects becoming "investment ready". However, projects can generate revenue through the direct sale of services to a buyer, without enabling repayable finance or investment. Of the projects analysed in this review, a majority of those generating revenue had not and were not expecting to, take on repayable finance (52%) and a further 16% were unsure. This suggests at least that repayable finance or investment readiness is not a prerequisite to developing a revenue-generating natural capital project. A number of respondents and consultees offered comments on this subject.

These data and sentiments suggest a need for clarity between off-takers (buyers) and investors across the sector.

There is, of course, a significant role for repayable finance in the sector however as evidenced by investments made into projects such as Highlands Rewilding (see case study on page 66). In support of this view, during a 1:1 consultation, a farmer commented that environmental improvement projects should be seen just like any other real estate project; requiring investment up front to deliver long-term returns.

Whilst most grant-related comments urged more support, a small number also pointed to incidences where public subsidy was actually crowding-out private investment.

> **"Current government funding of peatland restoration and tree planting crowding out private finance."**
>
> Anonymous survey respondent

> **"...[there is a] laser-like focus on private investment, when it is not attractive or required in most cases. We need a market, and perhaps brokers, but not investment."**
>
> Survey respondent, rural advisor

ROLE OF INVESTORS AND THE SPREAD OF RISK

Focus groups and other consultations referenced uncertainty around how risk would be shared between those delivering projects on one side and those either procuring outcomes or investing in it on the other.

Whilst procuring outcomes rather than actions, there also needs to be a balance of risk between parties to mitigate for unforeseen circumstances (for example a wildfire destroying a habitat or a target species not being found despite all of the correct steps being taken). A widespread perception existed of knowledge and resource differences between the parties. This underpins the importance of partnering with experienced advisors who are able to protect the interests of nature finance projects.

Amongst projects who reported being unsure about financial vehicles they would make use of, equity makes up a small proportion (10%).

Respondents who have secured repayable finance, reported investigating a wide range of financial mechanisms including profit sharing loans (34%), repayable grants (31%), concessionary loans (23%) and outcomes-based payments (20%). The most common of these vehicles was equity investment (49%). This trend towards equity could represent a realisation that in many cases, giving away some ownership is necessary to deliver a project.

SCALE

Quantitative data from the review did not reveal any trends in revenue generation or uptake in repayable finance correlated to project area. However, comments from the survey and made in focus groups did reference issues around scale. Financing UK Nature Recovery's 2022 reported noted that "limited capacity of the current supply chain to deliver a robust and reliable pipeline of nature-based projects means that projects cannot be readily aggregated to investment scale is a barrier to investment". A number of projects made comments about the mis-match between the desired scale of projects from investors and the actual size of many projects on the ground.

FURTHER INFORMATION

More detail on specific barriers and how they can be overcome is found in Appendix 5 – 'Supplementary observations and recommendations'.

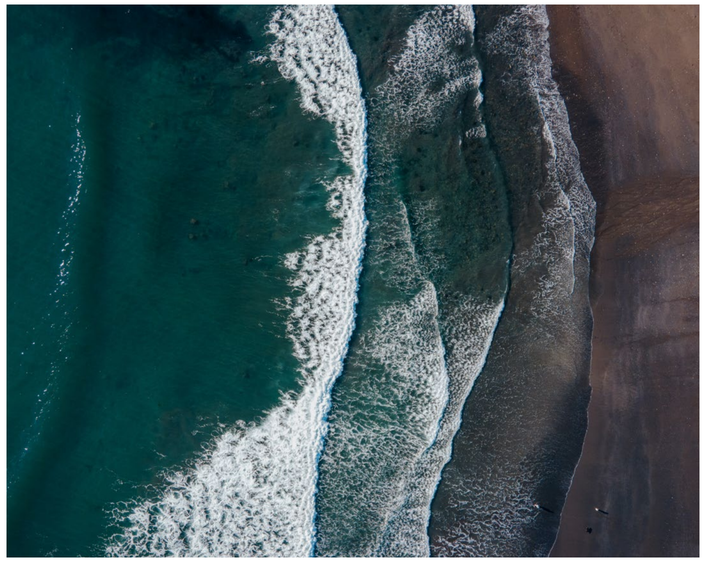
5

CONCLUSION & NEXT STEPS

UNKNOWN UK LOCATION
PHOTOGRAPHED BY
ROBERT BYE *PUBLISHED ON*
JULY 16, 2021

HEADLINES

01. While England and Scotland are home to a mix of aspiring and enterprising nature finance projects, many of these remain experimental. For many private land managers, the opportunity cost of allocating time and other resources to the pursuit of nature finance is too great.
02. Wales and Northern Ireland need to set strategies for the types of nature finance they wish to encourage within their land, coastline and marine areas. These strategies need to set a clear policy and regulatory context and signal the types of finance provider that are aligned with the prevailing values and needs of the people of these two jurisdictions.
03. Nature finance projects reported various uncertainties as barriers. This includes public policy, market rules, the price of ecosystem services and to the practicalities of working with new partners and relatively untested forms of finance and investment.
04. Within the project pipeline, there is scepticism and suspicion about the role that private finance could play in the stewardship of land water and nature. In particular, there are concerns about what this could mean for land use, land ownership and tenure, local heritage and involvement of local communities. Against this backdrop however, there is a huge amount of energy, ambition and desire to undertake work and build a system that values and protects nature, harnesses its value and creates opportunity and prosperity for people.
05. At present, the priority for nature finance projects is overcoming barriers to the sale of ecosystem service credits, rather than how to attract repayable finance.
06. There is a need to support smaller land managers in their participation in nature markets because of the real or perceived levels of up-front cost, risk, and revenue uncertainty.



ABEREIDDY, PEMBROKESHIRE UK
PHOTOGRAPHED BY **DANIEL MORRIS**
PUBLISHED ON **JULY 31, 2021**

Buyer engagement

This Review has found evidence that 'investment readiness' funding is increasing the chances of local projects being able to generate revenue and attract private finance. Nonetheless, the review presents specific barriers to smaller projects and tenants to participating in environmental markets (see results and discussion). There is a need to ensure that smaller land managers can formulate projects within their resource constraints and without radical disruption of their existing business. These smaller land managers include community-based groups, owner-occupier farmers, tenant farmers and crofters. They need access to efficient ways of finding suitable buyers for the ecosystem services that they can offer, as well as advice on pricing, when to sell and what to do about the pressures on their own businesses to reach net zero and be nature positive. Rather than simply providing 'investment readiness' funding, it will be important to ensure that those trusted by land managers to advise them are equipped to provide insight on nature finance.

The challenge for nature finance in all parts of the UK is to progress from the current disparate mix of a few hundred aspiring but experimental projects to the presentation of a co-ordinated set of opportunities for buyers of ecosystem service credits and other providers of finance.

Towards project portfolios

While the pipeline of nature finance projects in the UK remains in its infancy, it is emerging as an important aspect of green (and blue) enterprise and entrepreneurial endeavour. The current mix of projects is disparate. It is being delivered by entities ranging from large private estates to local government organisations and small community groups. The pipeline includes representation of most major rural habitats in the UK, ranging from upland peatland to lowland farm hedgerows and marine habitat. The trading is, however, currently dominated by projects in rural settings in England, which is where most of the revenue generation is occurring.

While the focus of this Review has been on the project pipeline – the supply side of nature finance – the findings point to a significant gap in understanding of:

- Who the buyers in nature markets are going to be over the coming decade and what they want in terms of stacked and bundled mixes of ecosystem service credits.
- How these buyers can discover opportunities that meet their needs and make informed decisions that get good outcomes for all parties and wider society.

Investors and buyers of the ecosystem service credits are calling for larger investment opportunities. A challenge for nature finance in all parts of the UK is to progress from the current disparate mix of several hundred aspiring but experimental projects to the presentation of a co-ordinated set of opportunities for this set of buyers and providers of finance. Speed in project development and aggregation will be important as corporates look to find ways to fulfil their commitments to net zero and nature positive activities.

Nature markets are currently driven more by supply-side aspirations and funding needs than proven demand from buyers. A concerted effort is needed by government and enterprise support groups to stimulate business interest in the procurement of ecosystem services ecosystem service credits in the UK. This includes communication of the role of nature finance projects in supporting the economic and community life of rural and coastal areas.

Beyond carbon credits from woodland and peatland, it remains unclear how the nature finance 'offer' in any one part of the UK can be organised into a co-ordinated portfolio that will attract the attention of buyers in all their diversity. This situation prevails despite the presence of enablers such as online trading platforms, project developers and regional project coordinators (including catchment markets[1]).

A priority of enabling trading

Nature finance is often perceived to be about access to private capital for improvements in the condition of the natural environment.

When government and the third sector use the word 'investment' in relation to the natural environment, they often do so with a very different meaning to those who own or manage financial assets. This Review shows that the focus of the current project pipeline is on nature markets, the trading of ecosystem services. Genuine financial investment (the deployment of financial assets in the pursuit of monetary returns or other direct benefit) is being sought in only a minority of cases. This situation may change if (or when) more private landowners seek to participate in nature markets. Should there be robust mechanisms to aggregate the value that nature finance projects can offer to businesses (including financial services organisations), then it may be the case that there is more opportunity for genuine investment.

Economic analysis carried out in 2021 estimated that £44 billion to £97 billion above current public sector commitments is required for the UK to meet nature-related outcomes through to 2031. While the project pipeline characterised in this Review is aspiring and enterprising, the combined expectations of revenue and repayable finance for nature finance projects do not come remotely close to meeting this gap. The focus should now be on scaling-up the nature finance projects that have been most successful from an environmental and social point of view. Initiatives such as Wilder Carbon[2] are well-placed to help with this, because they have professional brand identity and have established safeguards for the integrity of both buyers and sellers in nature markets.

The focus should now be on scaling-up the nature finance projects that have been most successful from an environmental and social point of view.

NOTES

1. www.wildercarbon.com
2. Catchment markets are schemes to bring together buyers and sellers of ecosystem service credits within river basins. An example is the Bristol Avon Catchment Market.

Outlook for the UK nature finance pipeline

There is uncertainty amongst nature finance project developers about market rules and the price of ecosystem service markets. On top of this, local communities and individual citizens are concerned about issues such as land tenure and sharing of benefits from new sources of private finance being deployed on land, water and nature. This is especially the case in Wales and Scotland, where land ownership has been a contentious issue far back in time.

The risks and costs (both time and money) that projects need to take on up-front were often perceived to fall too heavily on the projects themselves (especially smaller projects such as voluntary groups or family farms). Possible solutions to this are found in Appendix 5 – 'Supplementary observations and recommendations'.

If these concerns can be allayed, then nature finance can become an integral part of green enterprise and a key dimension of helping rural and coastal economies to become more resilient and sustainable. It can also grow from a minor contributor in addressing the financing and funding gap for nature to a major one.

Over the next few years, demand for nature finance projects is likely to grow. The Taskforce for Nature-related Financial Disclosures, which publishes its final framework in September 2023, will lead businesses and investors to examine their investments and supply chains and to find ways to deliver both net zero and nature positive outcomes through activities in the UK.

In advancing nature finance in the UK, the ultimate objectives should always be borne in mind. Arguably, it is not for individual projects to reach investment readiness or for the deployment of certain sums of private finance in environmental improvement. Instead, there is a broader need for the natural environment to be more fully valued and restored for everyone's wellbeing and prosperity.

Nature finance involves new relationships between people. Sometimes these are local, as in the case of community banking, community enterprises and the formation of farm clusters. It also has the potential to connect financial institutions and large corporates with relatively small enterprises around the UK and the local communities in which they operate. Based on the insight gained through this Review, these largely untested relationships present risk and opportunity in equal measure. The success of nature-based enterprise until now has been based upon meaningful collaboration and partnership. It is likely that ongoing success of the sector will continue to depend on this.

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