

Creating carbon credits through natural capital projects

Processes, methods and markets for projects

How are carbon credits created in the UK

There are many mechanisms to obtain carbon credits in the UK, the most robust voluntary carbon markets are the Woodland Carbon Code and the Peatland Carbon Code. Projects developed under these codes will produce credible carbon credits, in the first instance pending issuance Units are delivered from a project, these are effectively a carbon unit that has yet to be fully verified, they can be used to support cashflow at the beginning of a project. PIUs cannot be used to offset emissions until they have been verified and turn into a woodland carbon unit or a Peatland carbon unit, in the woodland carbon code the verification process takes 10 year and for the peatland carbon code it initially takes 5 years and then 10 from that point on. There is also other companies and frameworks at play in the UK that issue carbon credits or certificates, it is likely that these projects require a lower level of scientific scrutiny and thus should be approached with cation. There are however international standards that can be followed that require a similar scrutiny as the woodland and peatland codes however, these standards (VERRA, Gold Standard, Plan Vivo etc) are expensive and UK projects under these are uncommon.

How are credits used?

There is currently no requirement for companies purchasing carbon credits for offsetting to prove they have robust emissions reduction plans in place. In short companies can and do purchase carbon credits without any intention of reducing emissions. However, many credible developers of these projects encourage companies to ensure they have emissions reduction strategies in place before purchasing carbon credits, although it is not a necessity. There is currently no regulation in the UK that requires companies to reduce emissions however some companies are required by law to measure and report their annual emissions and large companies that are included in the UK Emissions Trading Scheme are strongly incentivised to reduce emissions or pay penalties. The lack of legislation forcing companies to reduce emissions in the UK alongside the open voluntary carbon market show that it is probable that companies have been using voluntary carbon markets as a means of offsetting emissions while continuing business as usual. There have been many instances where environmental claims have been brought to court and found to be misleading as companies have indicated products are 'low carbon' or 'environmentally friendly' because the company has offset its emissions rather than taken steps to reduce emissions. Although there is no doubt that some companies take this approach it is becoming more common for companies to sign up to agreements such as the Science Based targets Initiative that ensures companies have set credible targets to reduce emissions.

What makes an 'investible' project?

Natural capital projects may require a level of investment to establish and operate the project, to cover factors such as:

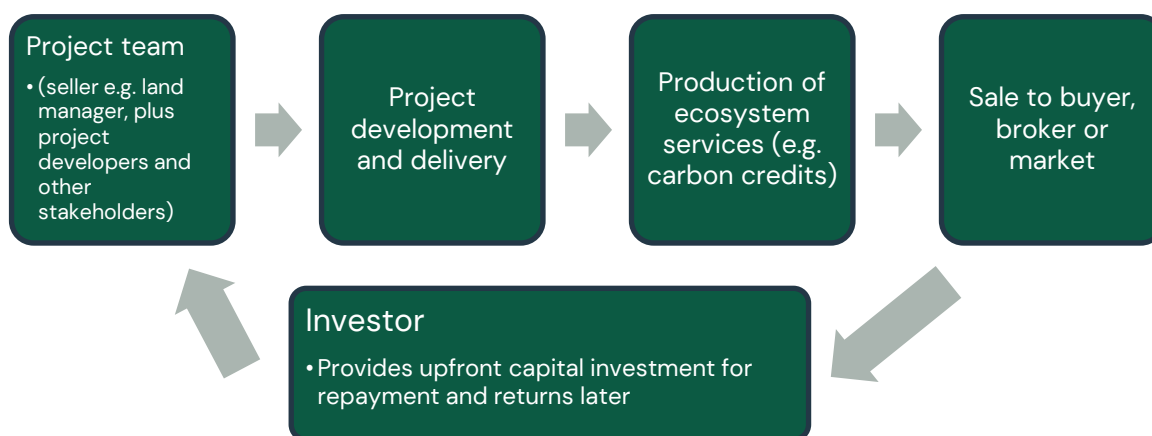
- Establishment costs
- Maintenance costs
- Project management costs
- Monitoring, reporting & evaluation (MRV)
- Transaction costs
- Specialist advice and legal fees

Projects may wish to consider bringing in an investor to provide investment capital, in exchange for a return of the investment on the receipt of payments for ecosystem services provided (e.g. carbon credits), plus a share of the profit.

Projects wishing to attract investors need to show that:

- The project is profitable;
- The profit will be large enough to cover transaction costs;
- It addresses risks that threaten the return on investment.

The project process and stakeholder involvement may look something like this:



It's not uncommon that there is conflation between investors and buyers in natural capital projects, even among those already working in this space. A buyer is the customer for the project (and its products, whether carbon, biodiversity etc.) and where the project gets its income from. An investor is a bank or fund that invests or lends money to get the project started but will expect to get the capital back plus a return on sale of the product. A project should secure buyers before investors in order to show the viability of investment. When securing an investor, the project developers should ensure clarity with the investor on what their role is in the project and what they will receive through involvement; in some cases, investors may not know themselves so it is important to be clear ahead of agreeing involvement.

The process of developing a natural capital project

A typical project development pipeline may look like this:

1. Stakeholder engagement; fundamentally with landowners, as well as other important stakeholders. It will also need a promoter/designer/ Intermediary (i.e. someone to bring it together). This stage may also want to bring in government agencies and investors if relevant, although the latter is usually needed later in the project.
2. Initial project scoping, in order to work out the potential revenue streams and how to access them. This will include understanding what ecosystem services are generated from the project, how will they be evidenced/monitored, who might want to buy the services, how & when the project engages with buyers about what they want and how much, what specialist support and services might be needed etc. This should involve thinking about the multiple types of ecosystem services generated, the potential for stacking of these for income streams, and respective markets for each service.
3. Identify & work with buyers of ecosystem services (to create a revenue stream).
4. Baseline and estimate ecosystem services and income expected. If the project is being submitted to a carbon credit registry and new methodologies are required to be developed for reporting on the project, these must be submitted to registries for review.
5. Develop a business case and financial model. Plan the project timeline and budget, making sure to include specialist expertise, legal fees, and contingency plans for risks.
6. Develop government structure, in collaboration with stakeholders.
7. Identify and work with investors to determine their role, needs and expectations. Investors need a thorough business plan to gauge investment attractiveness, so they are approached at this later stage in project development. If public funding is required to leverage public sector finance, this should be assured before approaching investors.
8. Establish legal contracts and closing with investors, and submit project to a registry (if relevant).

Carbon standards & registries

For projects generating carbon credits used in the offset market, projects should be listed with carbon registrations, such as VERRA or the Gold Standard. Registries ensure that credits are based on certification protocols (maintaining high quality and value in voluntary carbon markets), and ensure that the carbon credit cannot be claimed by more than one purchaser (to avoid double counting). As projects are published they are liable in the public space, enabling transparency of the provenance and method of carbon credit creation. Registries typically include various components, including the individual carbon standard, accounting methodologies, independent auditing, and the carbon registry.

In the process of registering project, methodologies must fit within set standards and protocols. The Interim Code for Responsible Investment provides guidance on methodologies, although with new types of projects cropping up there are still many environmental measurements and proof codes not yet established. If the project is attempting novel measures not yet covered or approved by the registry, a new methodology must be submitted for review before the project can be accepted. This can be a time-consuming process, according to the following steps:

1. Scientific methodological concept notes submitted to registry

2. Reviewed and either accepted or not
3. Formal methodology submitted
4. 30-day public consultation
5. Independent, specialist auditor assesses methodology
6. Methodology approved or rejected

Both methodologies and projects take time to go through registry processes, and due to the increasing interest in carbon offsets, registries are currently a bottleneck in the pipeline of carbon credit creation. It is also important to note that there are few common rules and requirements across registries, creating fragmentation and low fungibility of carbon credits in the voluntary market.

Following approval of a methodology, project submission to registries usually follows this process:

1. Formulation of project idea and concept
2. Development of protocols (methodologies for the project)
3. Submission to registry
4. Ensure eligibility for certification
5. Project verification, and monitoring and verification method/agent in place
6. Transaction of carbon credit sale undertaken
7. Brokerage of sale between buyer and seller to ensure both party's needs are met

How might these projects and methods apply to agriculture?

Currently, natural capital projects set up in this way must be fairly large scale (i.e. tens of thousands of pounds-value project, rather than hundreds of pounds), in order to generate enough capital from ecosystem service products to cover the cost of management and transaction costs. This indicates that for the vast majority of agricultural businesses, a stand-alone project would not be of sufficient scale to justify involvement. However, there are examples where farming businesses are participating in broader landscape-level projects, and where their contribution to ecosystem services within this may generate some income. These projects are externally managed by a project developer, and farms are typically one of many stakeholders involved in the project. Due to limitations of scale and expertise on average farms in relation to carbon and natural capital markets, new entry into this space would be recommended as part of an externally managed project run by more experienced organisations.

What is being done to improve the integrity of carbon markets?

Despite the uncertainty surrounding some companies claims it is the end use of carbon credits rather than the markets themselves that are the main issue. There is an increased need for projects that provide climate and biodiversity benefits to tackle the dual crisis of climate and biodiversity. This growing need alongside the just scrutiny of companies environmental claims has led to a rapid increase in interest in how carbon credits should be used and how companies should market their use. The Voluntary Carbon Markets Integrity Initiative (VCMII) is leading the way with the production of a code of standards that will likely feed into legislation at a national and international level. The code, which is still under development, states that companies must:

- Make credible science-based claims for achieving emissions reduction, including publicising their emissions inventory and strategies for emissions reduction.
- Ensure all claims are credible and verified by a third-party organisation.
- Purchase high quality carbon credits from a credible standard for offsetting, where the type, number, methodology used and more is publicly available and open for scrutiny.

The VCMI is a key partner in the Taskforce for Scaling Voluntary Carbon Markets which is an industry led group with ambitions to develop a governance body for voluntary carbon markets that will likely ensure the integrity of carbon credits and the wider markets.

Further information for project developers

The Investment Ready Nature Scotland (IRNS) grant scheme was launched in 2022, a partnership between NatureScot, Esmée Fairbairn Foundation and the National Lottery Heritage Fund, aiming to innovation and enable greater private investment in natural capital and high integrity natural capital markets in Scotland. The grant scheme provides support in the development of projects in line with Scottish Government's Interim Principles for Responsible Investment in Natural Capital¹ and the Just Transition² strategy. For more information on what support IRNS offers, please visit: <https://www.nature.scot/funding-and-projects/irns>

Additionally, the Global Finance Institute have developed an Investment Readiness Toolkit, available online, for project developers to assess scope for investment and position themselves to approach investors. They state that currently the main barrier to unlocking private finance is the lack of a pipeline of nature-based projects that are ready to attract private investment. For more information visit: <https://www.greenfinanceinstitute.co.uk/gfihive/toolkit/>

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¹ <https://www.gov.scot/publications/interim-principles-for-responsible-investment-in-natural-capital/>

² <https://www.gov.scot/policies/climate-change/just-transition/>