

CONSULTATION

Response Document



[Developing an ecosystem restoration code for Scotland - Scottish Government consultations - Citizen Space](#)

[Ecosystem Restoration Code \(ERC\) – Engagement Paper](#)

Closes: 7th July

Introduction to CIEEM

The Chartered Institute of Ecology and Environmental Management (CIEEM), as the leading membership organisation supporting professional ecologists and environmental managers in the United Kingdom and Ireland, welcomes the opportunity to comment on this consultation.

CIEEM was established in 1991 and has over 8,000 members drawn from local authorities, government agencies, industry, environmental consultancy, teaching/research, and voluntary environmental organisations. The Chartered Institute has led the way in defining and raising the standards of ecological and environmental management practice with regard to biodiversity protection and enhancement. It promotes knowledge sharing through events and publications, skills development through its comprehensive training and development programme and best practice through the dissemination of technical guidance for the profession and related disciplines.

CIEEM is a member of:

- Scottish Environment Link
- Wildlife and Countryside Link
- Northern Ireland Environment Link
- Wales Environment Link
- Environmental Policy Forum
- IUCN – The World Conservation Union
- Professional Associations Research Network
- Society for the Environment
- United Nations Decade on Biodiversity 2011-2020 Network
- Greener UK
- Irish Forum on Natural Capital (working group member)
- National Biodiversity Forum (Ireland)
- The Environmental Science Association of Ireland

CIEEM has over 830 members in Scotland who are drawn from across the private consultancy sector, NGOs, government and SNCOs, local authorities, academia and industry. They are practising ecologists and environmental managers, many of whom regularly provide input to and advice on land management for the benefit of protected species and biodiversity in general.

This response was coordinated by Members of our [Scotland Policy Group](#), Scotland Committee, and the [Ecological Restoration Special Interest Group](#).

1. What principles, actions or steps should be followed to ensure a high-integrity Ecosystem Restoration Code (ERC)?

The [CIEEM Ecological Restoration Special Interest Group](#), including those who had experience in using CreditNature's methodologies, expressed concern that while these methods are suitable for large-scale or rewilding-focused projects, they may not align with many standard or widely accepted sector practices. This divergence raises questions about how such approaches will fit with existing standards and accepted practices across the sector, alongside other issues such as:

- How will this approach report to, and contribute to, national target reporting, and ultimately UK-level reporting to the CBD? For example, we have concerns that it may diverge from established reporting frameworks for priority habitats and species used in other delivery areas.
- Could this approach result in the loss of important habitats? Might it also require an Ecological Impact Assessment (EcIA) or sensitivity analysis to identify potential risks? For example, land use changes that could harm national species recovery programs or fail to integrate such schemes.
- There has been mention of metrics, in the plural, but only CreditNature is referenced; it is therefore unclear how other metrics or approaches will be integrated.
- Both compliance and voluntary market approaches are mentioned, but there is still no clear explanation of how these will be implemented. One likely compliance market could be through the Planning System, which might support early development, but details on this are lacking. Additionally, policy development for nature gain approaches remains at an early stage and has not yet been worked out in detail.
- There is an emphasis on technology providing efficiencies; however, it is the experience of members of the Ecological Restoration Special Interest Group that efficiencies are not always consistent and should not be presented as a simple solution. For example, there is a vast difference in the application of passive acoustic sensors versus use of remote sensing and AI for detailed habitat assessments.

Currently, the code appears designed specifically to implement the NARIA framework under the CreditNature approach, and it is less clear how the code would accommodate other metrics or approaches. There are ways that the Scottish Government can more clearly distinguish/disentangle the broader reach of the ERC from the metrics that are used to inform credits. Prior to adopting a particular metric or credit approach, the Scottish Government should more fully consider the purpose of the code, including the types of outcomes Scottish Government hopes to achieve with this code, the types of interventions and actions that may be used to deliver these outcomes, and

what potential metrics and approaches would be most appropriate to detect change over time and deliver these outcomes without overly incentivising particular interventions or actions.

To incentivise good projects, it is particularly important to consider the potential for unintended or perverse outcomes driven by market efficiency. This exercise would help to ensure that any metric has the granularity to detect change for the types of outcomes the Scottish Government is aiming to deliver within the code and also applicability across a range of habitats, landholdings and scales/types of interventions. This is particularly relevant given the limited compatibility the NARIA framework may have for delivering uplift within agricultural landscapes, water ecosystems, and other dispersed or linear features such as nature networks or other smaller, yet strategically-linked opportunities to restore ecosystem integrity.

Principles

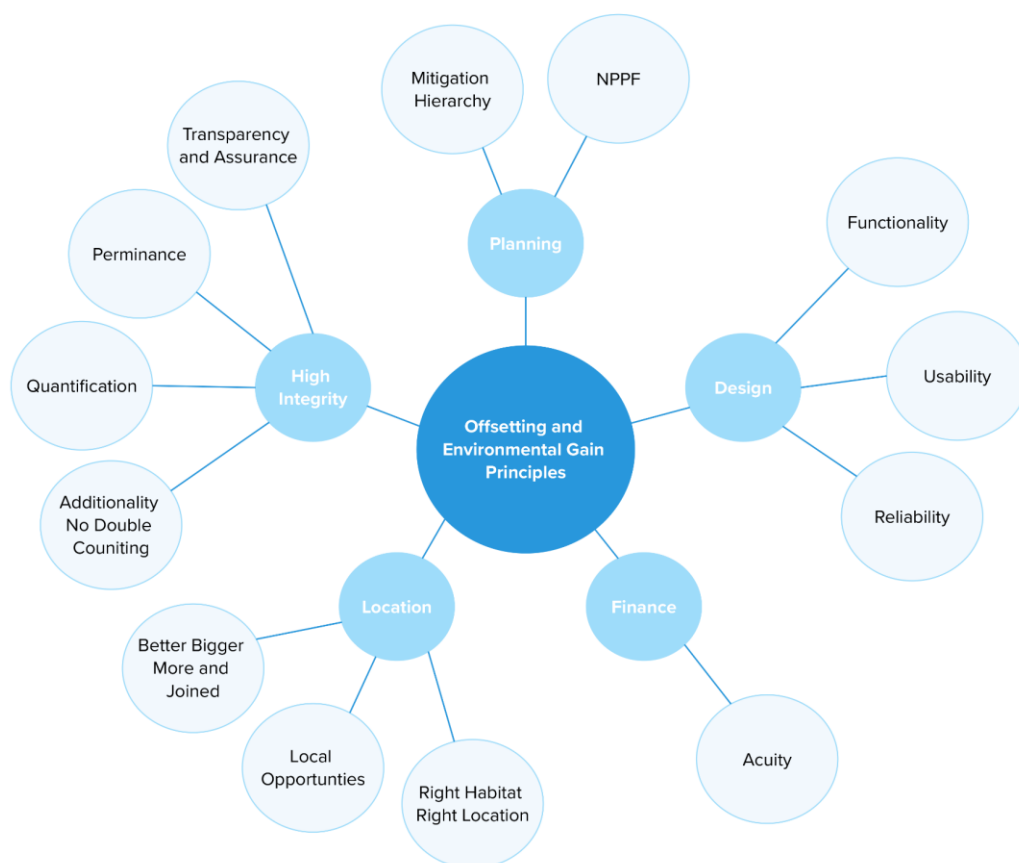
There are a growing number of standards, and it was welcome to find the BSI principles and early pathfinder nature finance standards being referenced alongside the ERC. There is a requirement in the BSI principles for metrics to be published and independently tested by organisations other than its developers. In the case of NARIA, detailed information about how the metrics are developed, the scoring methods used, and the results of pilot testing are currently proprietary to CreditNature. As a result, it is unclear how the required standards of transparency will be achieved.

Other sources that could inform principles include the [Global Biodiversity Standard](#), the Society for Ecological Restoration's International [Standards for the Practice of Ecological Restoration](#), and [The Conservation Standards](#).

Developing metrics and market demand for biodiversity credits represent significant challenges, and the complexity of ecological systems raises questions about how to achieve the necessary flexibility in the use of these credits within their local place-based context. Prior to release of the code, crediting frameworks and supporting metric(s), the Scottish Government should consider engaging Scottish resource experts in an external peer review to ensure applicability within the Scottish context. This review should include the scientific and technical documentation supporting the forecasting of uplift, and the underpinnings for the theoretical or attainable maximum that informs scoring within any metric. This review would allow for an expert evaluation of how these values were determined, their geographic relevance (e.g., how they address natural variability across different habitats or regions), and any other known or potential limitations in their applicability or use.

CIEEM's Ecological Restoration Special Interest Group, together with external sector experts, are developing a series of guidance on ecological restoration, which will be published over the coming year on the [CIEEM website](#). Recent publications include the Rebuilding Nature: Guidance on Good Practice for Ecological Restoration, which presents a set of [ten principles](#).

In addition, one member Ecological Restoration Special Interest Group shared a useful visual summary of principles relevant to any environmental gain market, which they often used as part of development of nature finance business cases (reproduced below; please note that in connection to 'Planning' it refers to the NPPF because this has been used in the context of England's planning system, but can be taken to refer to planning policies more generally).



Governance

One concern raised by members of the Ecological Restoration Special Interest Group was the issue of “permanence,” particularly because there may not be long-term contracts in place. This is an important assurance mechanism to the markets, which also enables greater investment potential where returns are not presented in the scale often expected (e.g. real estate). In England, BNG has specified 30 years for Section 106 agreements and Conservation Covenants, and we know realisation of impacts and outcomes from ecosystem restoration requires a long-term view. However, a term

of 30 years is not appropriate for many Scottish habitats which often require longer to develop, such as peatland which makes 22% of Scotland's area. We therefore would like more information on what structure of legal agreement/contract will be used, and for what length of term?

As part of the development process, it is important to consider how different income streams from ecosystem services or credit types might interact. This includes assessing whether these services or credits can be effectively combined—either through 'bundling' (offering multiple services as a single unit or credit) or 'stacking' (selling different ecosystem services as separate credits)—to provide value to multiple beneficiaries. Stacking should be minimised because it creates inevitable overlaps between credits, making it nearly impossible to maintain high integrity in the market. Bundling is a better approach, especially when credits reflect the overall restoration of ecosystem integrity, as intended by Scottish Government goals. In these cases, it is difficult to separate out individual ecosystem services from the holistic value of the credit. To build investor confidence, it is essential that these markets are underpinned by high-integrity standards and strong transparency.

Strong market rules, effective governance and enforcement are key to ensure successful implementation of the code. There must be a transparent process for metrics and Monitoring Reporting and Verification (MRV) systems to apply to join the ERC. Key questions that need to be addressed include:

- Which Statutory Nature Conservation Body (SNCB) will be responsible for monitoring and enforcing the code?
- What role will Local Authorities play in this process?
- What penalties will be applied in cases of non-compliance?
- Who is accountable for ensuring that both program-level outcomes and the performance of individual credit-generating projects are delivered?
- Who will have the authority to enforce contracts or other formal agreements at both the project and programmatic levels?
- How will rules and enforcement of the ERC relate to the forthcoming statutory nature targets that are proposed in the Natural Environment (Scotland) Bill?

Scale

The proposed threshold of over 200ha for projects appears to have been determined by the underlying metric and data resolution within the NARIA framework, rather than on ecological considerations. We gather from attendance at an Ecosystem Restoration Code Engagement Workshop that Scottish Government officials consider that this scale was necessary to encompass a 'whole' ecosystem and deliver uplift via the CreditNature metrics. However, this implies that a large

landscape scale is needed to support an 'ecosystem approach'. This is a much narrower interpretation of the ecosystem approach than is proposed by the Convention on Biological Diversity, which notes that there is no specified spatial scale for defining an ecosystem or functional unit. Specifically, they note that the definition of ecosystem *"does not specify any particular spatial unit or scale.... Thus, the term "ecosystem" does not, necessarily, correspond to the terms "biome" or "ecological zone", but can refer to any functioning unit at any scale. Indeed, the scale of analysis and action should be determined by the problem being addressed. It could, for example, be a grain of soil, a pond, a forest, a biome or the entire biosphere."* Natural processes, which support ecosystem condition, occur at multiple spatial scales, and it is important to focus on the relevant functional scale to address particular objectives and detect change, as opposed to simply encompassing a large landscape unit.

This restriction of more than 200ha, therefore feels like a missed opportunity, limiting the applicability of the ERC. Collectively, small-scale ecological restoration projects are crucial to the delivery of nature networks and connectivity across the landscape, but are unlikely to be incorporated if this minimum threshold is applied. An ecosystem approach does not necessarily require large or landscape-scale projects; strategic projects at a smaller scale can also deliver an ecosystem approach. It is important to focus on the relevant functional scale to address particular conservation objectives. For example, a river re-meandering project may reflect a valuable investment in restoration of reach-scale (i.e. a segment of a river with relatively uniform characteristics or that has experienced the same set of interventions) geomorphic and hydraulic processes which supports improved floodplain connectivity, water quality, local habitat and food web interactions. Assessment at a reach-scale would be appropriate to evaluate objectives as it reflects the relevant 'functional unit'.

If the minimum size threshold of over 200 hectares is applied, consideration should be given to supporting community groups and smaller organizations in forming regional partnerships that would enable them to collectively meet the threshold. Otherwise, the ERC won't recognise the work that is being done at a smaller scale that collectively delivers huge conservation gains. Conservation actions carried out by crofters and island communities, for example, would very much fall into this category. The current approach is also therefore not equitable. Community engagement and involvement must be an integral part in the development of nature markets. Investment needs to align with community needs and the relevant local biodiversity plans.

2. What actions and design features should the Ecosystem Restoration Code (ERC) adopt to enable land managers to participate in these markets?

- Accessible information: Requirements and processes must be clear and easy to navigate for all, not just specialists, including land managers and their advisors (e.g. consultants, etc.). Understanding of the ERC should not be limited to specialists such as lawyers and consultants to understand; not least because this would be deeply inappropriate for a legal contract.
- Participating in the ERC will involve costs for baseline data collection, analysis, restoration design and implementation, as well as ongoing monitoring and reporting. The scale of a project will influence its complexity and associated costs: larger projects require greater upfront investment, while smaller projects tend to have lower risks and costs, which could encourage broader market participation.
- A publicly-accessible and well-publicised spatial registry should be established and used to track the creation and sale of units. This will help ensure environmental gains are delivered with transparency and integrity and will guard against double-counting.
- Enforcement and assurance: is critical for contract parties and market confidence — we would like to see more detail on this.
- Clear and proportional processes are needed to make it easy to meet and access the code's requirements. This includes straightforward documentation and reporting, easy access to qualified professionals at reasonable costs, and simple procedures for implementation, monitoring, and evaluation. Ideally, all these costs should be factored into credit pricing. However, it is also important to ensure that landowners and managers can access the necessary expertise, and that there are protocols to manage financial risk—since not everyone will be able to pay upfront. This will help ensure equitable access to the market. Additionally, using familiar practices, such as evidence requirements from agri-environment schemes, will make the process more accessible for land managers.
- It is important to consider whether the costs of generating credits could limit widespread participation. If the process for creating nature credits is expensive, highly technical, or proprietary, it may discourage both landowners and investors from taking part. To encourage broader involvement, the initiative should prioritize transparency, clarity, and accessibility. Simplifying the process—while still maintaining high standards—will help make the market more inclusive for a wider range of landowners.

3. How can the Ecosystem Restoration Code (ERC) be designed to ensure that it best meets the requirements of high-integrity investors and users of nature/biodiversity credits?

Greater attention should be given to the different use cases described in the engagement paper. For example, the voluntary use of the NARIA framework seems very limited, with little clear demand to support its adoption. Additionally, there has not yet been a thorough assessment of potential regulatory or compliance mechanisms—beyond the planning system—that could help drive demand for credits. Exploring these options would be a valuable next step.

This highlights the need for greater clarity about the code's overall purpose. Specifically, it is important to clearly define the demand or the need the code is intended to address, understand what is driving that demand, and identify the types of outcomes the code should deliver in response.

Clear standards, rules and publicly accessible maps/spatial registry are needed to track where and how units are created and sold. Crucially investments must be aligned to community objectives and community participation is integral to success. Consideration could be given to whether formal accreditation is appropriate and what form it should take to ensure credibility and accountability in ecosystem restoration efforts.

There is a need for clarity on the drivers of demand for credits; while some companies invest for corporate social responsibility, broader participation requires economic drivers, such as tangible monetary return for project investors, reduced operational risks, or consistent demand for credits supported by clear regulatory frameworks. It should be noted that reputational risk is a key driver for industry.

The code should embed the principle of avoiding/reducing impacts before offsetting. The mitigation hierarchy is a fundamental principle in ecological practice. It requires that environmental impacts are first avoided and reduced, and only then should offsets be considered. Biodiversity enhancements should provide net benefits that go beyond what is needed for avoidance and mitigation.

Any proposed use case should incorporate the mitigation hierarchy, with clear documentation showing what steps have been taken to prevent or minimize harm before claiming nature-positive outcomes. When developing a crediting system, it is essential to assess its ecological impact to ensure that the benefits (uplift) are equivalent to the impacts. Therefore, the methods used to measure uplift and issue credits should be consistent with those used to assess ecological impacts. It is crucial to evaluate the relevance and suitability of these metrics from the outset to ensure accurate and meaningful results.

4. How should the Ecosystem Restoration Code (ERC) be designed to support delivery of Scottish Government policy whilst being sufficiently accessible and attractive to market actors?

This ties back to the broader question of the code's purpose and what the Scottish Government ultimately aims to achieve through its development. There appears to be a need for more strategic thinking, rather than simply advancing the output produced by CreditNature using public funding.

Consideration should be given to the voluntary versus mandatory aspects. The Taskforce on Nature-related Financial Disclosures (TNFD), for instance, requires businesses to assess and manage their reliance on nature and their supply chains' impacts on nature

For nature markets to thrive, there needs to be sustained demand for credits. While some companies invest for corporate social responsibility, broader participation requires economic drivers, such as tangible monetary returns for project investors, reduced operational risks, or consistent demand for credits via clear regulatory requirements, for example, in connection with forthcoming statutory nature targets that are proposed in the Natural Environment (Scotland) Bill.

5. Do you have any other comments or suggestions at this stage for the team designing the Ecosystem Restoration Code (ERC)?

There are currently several evolving policy areas under development—such as the creation of a biodiversity metric for use in the Scottish planning system to support NPF4 Policy 3b, the establishment of nature networks, the 30x30 target, and the broader Scottish Biodiversity Strategy and its delivery plans. Additionally, work is underway to reform how protected areas in Scotland are monitored, building on Site Condition Monitoring while shifting focus toward more effective site-level and landscape-scale pressure management. It is essential that these various policy strands are coordinated; otherwise, the result could be a fragmented and confusing landscape for nature finance and biodiversity policy.