OXFORDSHIRE LOCAL NATURE PARTNERSHIP

Enabling nature-based carbon sequestration in Oxfordshire

Developing a High Integrity Nature-based Carbon Market Framework for Oxfordshire

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Executive Summary

This document sets out a practical pathway for establishing a high-integrity, Oxfordshire-based carbon credit market that supports the county's net-zero objectives while advancing wider nature-based solutions. Its purpose is to provide clear principles and operating guardrails for project developers, buyers and governance bodies so that credits issued within Oxfordshire are environmentally robust, transparent, and trusted. The focus is carbon first; non-carbon outcomes (such as biodiversity as a key co-benefit) are recognised as important co-benefits and are encouraged where they strengthen project quality without diluting carbon integrity.

Our approach is deliberately pragmatic. Rather than re-inventing standards, Oxfordshire will adopt a blended framework that draws on the strongest elements of the Oxford Offsetting Principles, the Integrity Council for the Voluntary Carbon Market (ICVCM), Core Carbon Principles, the Voluntary Carbon Markets Integrity Initiative (VCMI) Claims Code, and emerging British Standards Institute (BSI) nature markets guidance (e.g. BSIFlex 701/703). This framework is not intended to prescribe every rule in advance. Instead, it sets out the principles, evidence expectations and governance questions that an appointed team will use to select specific policies and market rules—ensuring consistency with local priorities and alignment with the best available national and international practice.

Place-based integrity is the defining feature of this market. Credits should be generated within Oxfordshire and demonstrably benefit local landscapes and communities. Interaction with compliance or other regulated schemes may be possible where it improves integrity and liquidity and does not undermine the county's commitment to genuine removals and high-quality avoidance. Stacking or bundling with public funding and other environmental markets may be permitted, but only where additionality, double-counting and claim-integrity tests can be satisfied and transparently evidenced.

High-integrity rests on four core pillars that run through this document: additionality, permanence & risk management, transparency & Monitoring, Reporting and Verification (MRV), and buyer integrity. Projects must demonstrate strong baselines, clear counterfactuals, and compliance with legal and environmental additionality tests; financial additionality may be considered where relevant but should not displace more objective tests. Permanence expectations, buffers, monitoring and reversal remedies must be proportionate to the risk profile of each pathway (e.g. woodland, peat, soil, biochar), with a preference for replacement of tonnes and timely correction of claims where reversals occur. Transparency requires open documentation, auditable data and traceable serialisation on fit-for-purpose registries. Buyer integrity means credits are used only after meaningful in-house emissions reductions, with claims that are accurate, conservative and verifiable.

Governance will be decided locally, informed by the options discussed in this report. Oxfordshire's local authorities, the Local Nature Partnership and other stakeholders may steward the framework directly or via an independent vehicle; in all cases, roles and accountabilities must be clear. The market should connect to recognised registries to ensure uniqueness, retirement transparency and (where permitted) secondary trading, while maintaining the county's ability to set stricter local rules where needed. Dispute resolution and continuous-improvement mechanisms should be built in from the start.

Operationally, the framework emphasises proportionality and cost-effectiveness. Standardised evidence requirements, clear project templates, and early developer engagement can reduce transaction costs without compromising integrity. Where public funds are blended with private finance, eligibility, attribution and claim-splitting rules must be explicit. The registry pathway should avoid vendor lock-in while meeting minimum requirements for transparency, data access and permanence tracking.

The market's scope is carbon; however, co-benefits matter. Where projects deliver biodiversity uplift, natural-flood-management outcomes, improved water quality or social value, these should be evidenced using credible metrics and reported alongside carbon outcomes. Co-benefits should never substitute for carbon effectiveness, but they can strengthen project selection, community support and long-term durability.

To prove and refine the approach, pilots will be essential. Early opportunities may include woodland creation and restoration, peatland improvement, soil-carbon practices in appropriate contexts, and biochar where supply chains are robust. Pilots should test the core principles under real conditions and generate lessons for scaling—particularly around additionality assessments, permanence buffers, monitoring logistics, registry integration and buyer claims.

This document therefore does three things. First, it consolidates the strongest elements of existing standards into a single Oxfordshire-ready integrity framework. Second, it translates those principles into practical market design choices for governance, registries, MRV, financing and buyer claims. Third, it sets out a staged implementation plan so that learning from pilots can be codified into stable, county-wide rules. Throughout, the emphasis is on clarity, evidence and accountability, with space for the appointed team to make policy decisions within defined guardrails.

Success will be measured by the credibility of Oxfordshire credits, the confidence of buyers and the quality and durability of outcomes on the ground. By anchoring our market in high-integrity principles, focusing on local generation of credits, and adopting a blended standard that reflects best practice, Oxfordshire can mobilise investment into nature-based climate action while maintaining public trust. The result should be a market that is lean, transparent and fair—capable of scaling responsibly, supporting local livelihoods and landscapes, and delivering real, verifiable carbon impact for the county.

Contents:

Introduction

This document sets out a practical pathway for establishing and overseeing a high-integrity, Oxfordshire-based carbon credit market, focused on carbon outcomes with nature-based co-benefits treated explicitly as co-benefits. The framework is intentionally blended, drawing on the strongest elements of the Oxford Offsetting Principles, ICVCM[1] Core Carbon Principles, VCMI[2] Claims Code and BSI[3] nature-market guidance, and it emphasises the four integrity pillars that run through the report: additionality, permanence & risk management, transparency/MRV[4], and buyer integrity. A defining feature is place-based integrity: credits should be generated within Oxfordshire and demonstrably benefit local landscapes and communities, with interactions with compliant markets only where this strengthens integrity and does not dilute local objectives.

Implementation is addressed in practical terms: governance with clear decision rights and conflicts management; proportionate MRV and open documentation; serialised issuance and transparent retirement on fit-for-purpose registries; disciplined buyer claims aligned to the mitigation hierarchy; and explicit tests for stacking and bundling where public funding and private finance intersect. The report defines the operating model for market participants, sets minimum evidence and disclosure requirements, and provides a phased plan, from early pilots to county-wide scale, so that lessons are captured and rules improve over time. The aim is a market that is credible, lean and fair; capable of mobilising investment into Oxfordshire's natural assets while maintaining public trust and delivering verifiable climate benefit.

A High-integrity Marketplace

What is meant by "high-integrity"?

High integrity means markets operate, and outcomes are delivered, transparently, robustly and fairly for all stakeholders. The International Advisory Panel on Biodiversity Credits (IAPB) defines high-integrity markets as providing "verified outcomes for nature, equity and fairness for people, and good governance for markets," grounded in robust evidence, additionality, durability, equity and rights across the lifecycle. The UK Government consultation on voluntary carbon and nature markets (DESNZ, 2025) highlights minimum features: legal additionality, conservative baselines, no double counting, independent review, and reversal remedies. BSI Flex 701 frames integrity through fairness, honesty and other characteristics that create trust, noting transparency as central—while balancing disclosure benefits against cost and burden. For carbon markets, the Climate Change Committee describes high-integrity credits as additional, accurately estimated and claimed, measurable and verifiable, with long-lasting benefits (CCC, 2022). Across definitions, common pillars emerge, together with growing recognition that integrity requires community involvement in design, delivery and outcomes before projects commence.

[1] Integrity Council for the Voluntary Carbon Market
[2] Voluntary Carbon Markets Integrity Initiative
[3] British Standards Institution
[4] Monitoring, Reporting, and Verification

Why high integrity matters?

Ensuring a high-integrity framework for Oxfordshire is a core aim. A substantial body of literature now addresses integrity from academic, government and commercial perspectives; this report adopts relevant elements and considers their use across a range of users. Our focus is the use of credits (carbon credits), their creation, application and recognition that a nature market may also include non-credit mechanisms (e.g., outcome-based payments in natural flood management). Core principles are set to apply whatever service is transacted (carbon, biodiversity, flood), so that governance provides confidence in operation and outcomes, captures community benefit and engagement, is applicable across nature markets, and remains accessible to diverse buyers and sellers.

The need for high-integrity nature markets

The UK's Nature Markets Framework states: "Integrity is the bedrock of nature markets, credits must reflect genuine, lasting and additional environmental improvements, robustly verified and transparently documented, with no double counting or room for misleading claims or greenwash" (Defra,2023). High integrity is fundamental to market development, the BSI stresses economic pragmatism: robust measures must also account for supply-side feasibility and cost (BSI IPNIS, 2023). Although some markets are early-stage (e.g. natural flood management, biodiversity), carbon markets have decades of history—and recent evidence shows projects have not always met intended outcomes, exposing buyers to greenwashing claims and, at times, causing local harm. The Revised Oxford Principles (2024) note growing alignment between organisational strategies and net zero since 2020, but also increased over-crediting, undermining valid claims.

This report applies principles and standards to a local framework for Oxfordshire, with emphasis on carbon markets that enhance local sequestration and storage (including consideration of insetting). It identifies key features of a high-integrity market, acknowledges trade-offs between robustness and cost, and commits to a practical balance that encourages action. Compatibility with other payment schemes (e.g. Sustainable Farming Incentive/Environmental Land Management Schemes/Countryside Stewardship) will be maintained, ensuring land managers can access multiple funding sources without being paid twice for the same outcome and while meeting additionality and attribution requirements.

Frameworks and Standards

Existing frameworks relevant to the project

In developing a set of principles for an Oxfordshire marketplace, this project has performed a review of reports, existing frameworks and findings from organisations and academia that explore concepts of high integrity and their potential suitability or application to nature markets.

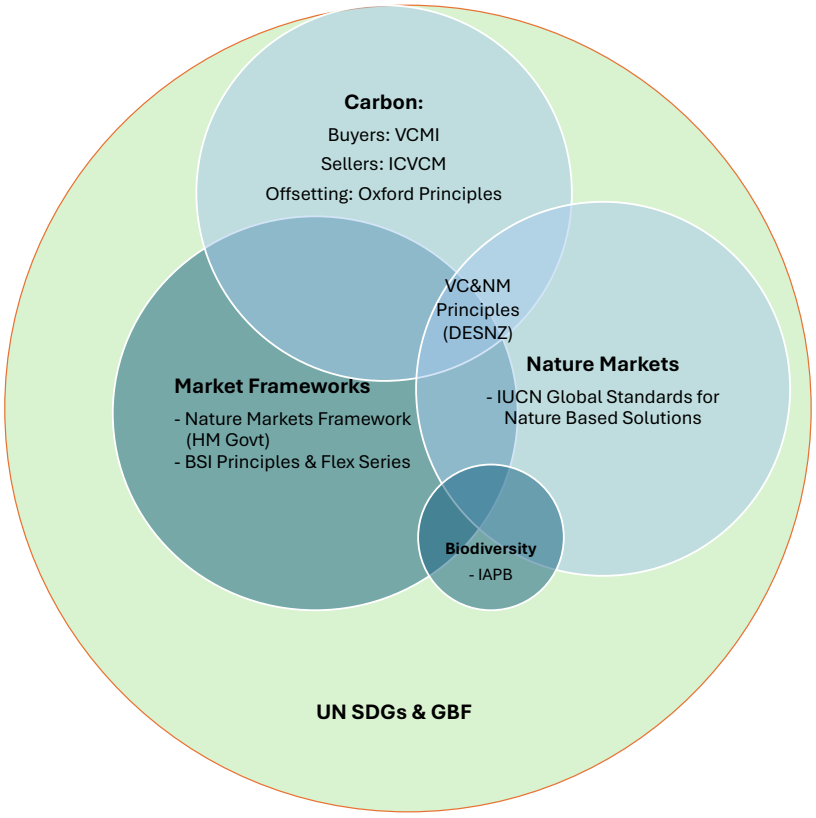
Creating a high-integrity nature market provides "a blueprint for mobilising private finance on a global scale" (Young, 2022). Numerous governance & market frameworks are relevant in the context of this project and overlap in showing how claims, credit quality and governance must align as shown in Figure 1.).

Governance and Market Frameworks:

- VCMI (Voluntary Carbon Markets Integrity Initiative) sets the rules for buyer claims

- ICVCM (Integrity Council for the Voluntary Carbon Market) defines supply-side quality through its Core Carbon Principles;
- Oxford Principles guide the use of offsets so credits complement, not replace, emissions cuts.
- The UK's VC&NM Principles (DESNZ)—Voluntary Carbon & Nature Markets principles from the Department for Energy Security & Net Zero—signal how national policy expects carbon and broader nature claims to align.
- The Government's Nature Markets Framework (Defra) and the British Standards Institute (BSI) Principles & Flex series (e.g., Flex 701/703) provide cross-market governance and data/assurance expectations.
- The IUCN Global Standard for Nature-based Solutions establishes outcome and safeguards.
- IAPB (International Advisory Panel on Biodiversity Credits) frames the integrity of credits.
- UN SDGs (Sustainable Development Goals) and the GBF (Kunming–Montreal Global Biodiversity Framework), set the overarching societal and ecological goals.

Figure 1: Governance & Market Frameworks relevant to voluntary nature & carbon markets



Risks of weak market frameworks

Young (2022) highlighted that the lack of a clear and consistent framework for market integrity poses a significant obstacle to attracting private investment in nature recovery. This gap, combined with other challenges, results in large-scale investments being perceived as uncertain compared to their potential returns. The report emphasized the need for a strong and credible framework to foster confidence in environmental markets, unlock their full economic, social, and environmental value, and ensure that investments in UK nature-based solutions are genuine and not merely superficial "greenwashing" efforts.

Four primary reasons were cited for the lack of private investment to date in nature markets:

1. **Limited sources of revenue from nature** to fund investment due to systematic undervaluation of nature and an absence of drivers for the private sector to invest in its conservation, restoration and management;
2. **Lack of coherence between the approach to environmental regulation**, existing public funding mechanisms and incentives, giving rise to high transaction costs and concomitant disincentives for investment in nature-based projects;
3. **Insufficient certainty for pricing and managing risk** over the long term due to the lack of institutional architecture and robust market governance (including approved standards for measurement and accreditation of nature-based projects); and
4. **Supply chain capacity constraints** limiting scope to deliver robust and reliable pipeline of nature-based projects preventing projects from being readily aggregated to the necessary investment scale.

An Investment Framework for Voluntary Nature Markets

Investable architecture for Oxfordshire's nature markets

In practice, uncertainty runs through the investment chain. Developers cannot tell whether revenue from different environmental services on the same land parcel can be stacked or bundled; rules often prescribe actions rather than prove outcomes; and ambiguity persists over whether distinct services can be traded without breaching additionality or triggering double-counting. The interface between public and private finance is equally hazy: projects must evidence who claims what when grants and credits co-fund the same activity, while landholders face unclear tax and valuation treatment for long-term obligations—raising the cost of capital. Young's remedy is not another checklist but an architecture for confidence: translate national targets into local recovery priorities, channel public money through accredited market mechanisms, create explicit demand drivers, and back this with standards, accreditation and open data so MRV is consistent and comparable. That architecture must be matched by infrastructure including; registries, contracts and templates. This enables transactions to be traceable and efficient, much of which can be delivered locally in Oxfordshire while national policy on stacking, taxation and regulation matures (Young, 2022).

A high-integrity market framework can unlock private investment by mitigating risk in projects, preventing perverse incentives, and sharing value fairly between participants and communities, thereby advancing wider social goals such as a just transition (Young, 2022). In practice, that means policy that rewards outcomes rather than inputs, gives predictable rules of the game, and narrows the spread between project risk and return. Figure 2 (Young, 2022) sets out this architecture: clear policy signals to crowd in capital; governance that assures measurement and accreditation; and operations that make transactions fair and efficient. Efficient access is essential with standards and accreditation need to be transparent and predictable, with compliance mechanisms that are seen to work, so smaller actors can enter without prohibitive transaction costs (Young, 2022).

Figure 2: Investment Framework for High Integrity Environmental Markets Source: (Young, 2022) [Financing Nature Recovery UK, final report, June 2022]

To sustain confidence, the report argues for a co-ordinated system of standard development to avoid a proliferation of inconsistent rules that confuse the market and erode trust (Young, 2022). Fragmented standards also burden buyers, who must learn multiple sub-markets—reducing liquidity and slowing the flow of capital (NASDAQ, Value Exchange, 2024). Linking standards to a UK green taxonomy would have helped organisations evidence environmental sustainability, but with HM Treasury not pursuing a taxonomy, credibility should instead come from arms-length standards underpinned by robust science, economics, law and finance; independent accreditation (e.g., via UK Accreditation Service) to assure credit quality; and alignment with corporate disclosure regimes that shape demand and reporting— Taskforce on Nature-related Financial Disclosures (TNFD), and for carbon, Science Based Targets initiative (SBTi), the Task Force on Climate-related Financial Disclosures (TCFD) and relevant EU disclosures. Together these elements reduce uncertainty, lower costs, and make voluntary nature markets investable at scale (Young, 2022).

Core Integrity Pillars

In reviewing the emerging standards and frameworks it shows that a relatively small set of core integrity pillars underpins credibility across high-quality nature and carbon markets. These pillars recur in the UK Nature Markets Framework, the IUCN Global Standard for Nature-based Solutions, the Integrity Council for the Voluntary Carbon Market's Core Carbon Principles, the International Advisory Panel on Biodiversity Credits' guidance, and

comparative UK reviews (Defra, 2023; IUCN, 2020; ICVCM, 2024; IAPB, 2024; Reed et al., 2023). In brief, they comprise of the following points:

- Monitoring, reporting, transparency and traceability: evidence-based Monitoring, Reporting & Verification (MRV) that is independent, proportionate and conservative, underpinned by public documentation and interoperable registries with unique identifiers to prevent double counting and to record stacking/bundling clearly.
- Additionality and no leakage: clear legal and baseline tests so that outcomes go beyond business-as-usual, combined with safeguards to ensure that emissions, degradation or other harms are not displaced elsewhere.
- Permanence and long-term stewardship: durability of outcomes supported by risk identification, buffers or insurance, contractual protections, and multi-decade monitoring and management so that reversals are minimised and remedied.
- Governance, accountability and buyer integrity: robust governance with defined roles, conflict-of-interest management, grievance routes, and social and environmental safeguards, alongside demand-side integrity where buyers apply the mitigation hierarchy, follow credible transition plans, and make fair, clear and not misleading claims.

Taken together, these pillars provide a consistent, outcomes-focused basis for market trust, while allowing proportional application. This will allow smaller, locally led projects to align to the LNRS and other local plans.

Monitoring, Reporting & Transparency

The importance of monitoring, verification & compliance is a key pillar of market governance, to ensure ongoing compliance with applicable standards. At the same time, a risk-based approach is needed to avoid burdening low-risk projects with excessive MRV costs, thereby optimising scarce resources for on-the-ground delivery. Where non-compliance is identified, defined procedures should set out proportionate remedies (e.g. corrective monitoring, buffers, discounting potential vs. ex-poste unit issuance, or insurance), with suspension or delisting reserved for serious breaches. Independent verification, clear Quality Assurance/Quality Control, and auditable evidence at accreditation and at each monitoring interval complete the compliance cycle (Young, 2022).

Reporting should make the evidence trail visible and consistent: standardised monitoring datasets; verifier statements; and serialised issuance, transfers and retirements on an approved registry, published to an agreed timetable. Documentation must describe project aims, interventions, baselines, methodologies, and any public-funding interactions relevant to additionality and attribution, so that third parties can follow claims from project inception to unit retirement. Non-compliance pathways should be transparent—stating when issuance is deferred, when buffers are adjusted, or when insurance is called—so outcomes remain credible and comparable across pathways.

Openness as to project aims, interventions, outcomes and benefits is recognised as one of the main non-technical actions that can create greater trust in a project, and the UK Government's Nature Markets Framework identifies transparency as a key tenet of a high-integrity marketplace (Defra, March 2023). Transparency of data held in registries and ease of accessibility for third parties are equally important, enabling participants and stakeholders to assess practices and verify claims. In practice, this means publicly visible project pages, accessible monitoring datasets, verification statements, and clear cross-references to registry entries for issuance and retirement, consistent with the emphasis on transparency in emerging UK frameworks (Defra,2023; Young, 2022).

Additionality

Additionality is a core pillar of high-integrity markets. Credit revenues must drive outcomes beyond what would have happened anyway. In practice, programmes and research deploy families of tests to evidence this, which are most commonly legal, financial, barrier, and common practice assessments—used singly or in combination to show that a project's claimed uplift is not required by regulation, routinely undertaken, or feasible without credit income (Downey, 2022). It will demonstrate that credited activity delivers genuine environmental improvement (for carbon, real reductions or removals) rather than reallocating benefits that would have occurred regardless of the market.

For Oxfordshire, two baseline tests provide a clear, auditable core. The environmental baseline test (at accreditation) establishes the state of the land now and in the recent past, this will guard against pre-project degradation and will allow estimate to the uplift using the precautionary principle and proportionate evidence. The legal baseline test checks for any enforceable duty, grant condition or contract that already requires the same activity or outcome at the reference date; if so, those actions are in-baseline and cannot be credited unless scheme rules explicitly permit it. Regulatory minima may also sit in the baseline where obligations are certain and like-for-like in duration and performance; only activity demonstrably beyond those obligations can count as additional (Young, 2022).

The role of financial additionality is more contested. Some standards apply it (e.g., Woodland Carbon Code; Wilder Carbon), yet Young (2022) argues it is not necessary where robust environmental and legal tests, accreditation and transparent registries already ensure additionality. Financial tests can dampen price signals, complicate participation, and hinge on subjective assumptions (opportunity costs, time allocation), especially over long periods. Consistent with this, Business and Biodiversity Offsets Programme's review concludes it is "sensible to focus on environmental outcomes rather than complicated tests involving financial additionality" when outcomes can be quantified (von Hase, Amrei & Cassin, 2018). A pragmatic position is to treat financial additionality as context-specific, for example, where credits fund ongoing maintenance but still rely primarily on environmental and legal baselines, applied under recognised standards with independent accreditation and open, serialised registries (IAPB, 2024; Young, 2022).

Permanence

Seeking to ensure a project's benefits are maximised for the long term underpins investment or actions within nature markets, and is also important for purchasers of carbon credits. The Nature Markets Principles co-developed by the Wildlife Trusts, RSPB, Finance Earth and others identify "Permanence and financial prudence" as a core principle, calling for the durability of benefits to be maximised in perpetuity and for reversal risks to be mitigated through a suite of approaches: early identification of risks with mitigation to avoid reversal; contractual obligations on landholders for the project duration; a preference for ex-poste over ex-ante unit sales (where ex-ante are used, appropriate measures to manage failure risk); and ensure projects are funded over their lifetime (Wildlife Trusts et al., 2023).

Operationalising permanence requires proportionate, pathway-specific expectations. Projects should set permanence periods and buffers/insurance commensurate with hazards (e.g., fire, disease, hydrological change), maintain long-term monitoring, and publish reversal response plans that prioritise prompt tonne replacement and claim correction. Legal instruments (easements or covenant-like obligations), management plans, and registry traceability (serialised issuance, transfers and retirements) help lock in obligations over time. This aligns

with integrity guidance that high-quality credits deliver long-lasting benefits (Climate Change Committee, 2022) and with the Nature Markets Framework emphasis on transparency and robust governance for durable outcomes (Defra, 2023).

Governance and reporting should make permanence verifiable. At accreditation, projects should document a risk register, funding plan for the full term, monitoring intervals, and triggers for remedial action; verification statements should confirm performance against these commitments. Where reversals occur, the market should debit buffers, replace units and disclose events promptly in project documentation and in an annual integrity report; where ex-ante issuance is permitted, use conservative discounts, milestone gates and insurance/guarantees to protect buyers and the public interest. Transparent disclosure of these measures—alongside registry entries—enables participants and stakeholders to assess whether permanence risks are being prudently managed (Defra, 2023; Wildlife Trusts et al., 2023; Young, 2022).

Demand (Buyer) integrity

At the date of publication, detailed buyer guidance had not yet been released; in the interim, buyers should develop and apply a robust nature strategy with nature-positive ambition that contributes to the Global Biodiversity Framework, apply the mitigation hierarchy (or SBTN's AR3T framing) so credits address only residual impacts, and publicly disclose their approach. Claims should be accurate, conservative and time-bound, with volumes, vintages and retirements clearly reported; where using carbon credits, buyers are expected to meet the foundations of VCMI/ICVCM and show progress against science-based reduction pathways to avoid greenwash (SBTN; VCMI; ICVCM; Global Biodiversity Framework).

Market Operations

Stacking and bundling of environmental services

Stacking is defined as the issuance of more than one type of credit or unit from the same activity on the same parcel of land (Defra, 2023). By contrast, when multiple ecosystem services from a parcel are packaged and sold as a single unit, they are bundled this is either explicitly (each benefit measured and stated) or implicitly (one service quantified while other benefits are assumed alongside). The key distinction is that an explicit bundle can only ever be sold as a single aggregated unit, whereas a stack generates separate units for separate services (von Hase, Amrei & Cassin, 2018). In UK practice, Woodland Carbon Code and IUCN Peatland Code credits are examples of implicit bundles. Some project designs also use "stacking without unbundling," a hybrid in which one credit type is sold while the other services are retired simultaneously and cannot be sold separately allowing the developer to choose the most appropriate unit at a given time while preventing double-sale of co-occurring benefits.

At the time of Young (2022), uncertainty about stacking was acting as a significant barrier to investment, with a "persistent view" that stacking could drive market failure, facilitate greenwash and erode environmental value. Although subsequent policy clarifications in particular at the interface of compliance markets such as BNG and nutrient neutrality which have helped, gaps remain. The evidence base on costs and benefits is still limited, yet Government has indicated support for combining revenue streams "with the right framework of standards, rules and data … guarding against 'greenwash' and 'double counting'" (Defra,

2022). In short, stacking is not inherently problematic; rather, governance and market design determine whether it delivers integrity or risk.

When well designed, stacking can make nature projects more investable. Using the same land to deliver multiple services can preserve productive agriculture, enhance and diversify revenues for landholders, and reduce per-unit transaction costs by spreading development and MRV costs across credit streams and strengthening resilience in rural economies. The integrity risks are well characterised such as double selling the same service, overlapping sales of partially coincident services, and asymmetrical accounting between buyers and sellers, but Young (2022) concludes these arise from regulatory and architectural gaps rather than stacking itself. The remedy is clear partitioning of rights, effective documentation of who can claim what, and publicly accessible registries that record issuance, transfers and retirements, so attribution is visible and double-claiming is prevented.

Current policy signals are supportive but acknowledge constraints. Defra (2023) notes opportunities for stacking and explicit bundling remain limited by the number of markets, available methodologies, demand and additionality considerations. Arup's Rapid Evidence Assessment for the Office for Environmental Protection calls for clear guidance on double-counting and additionality and continued monitoring of Defra's progress (Ove Arup & Partners Ltd, 2024). The latest DESNZ (2025) consultation reports Government is open to trialling more stacking, citing benefits such as multi-functional projects, lower credit generation costs and greater competition, while flagging concerns over buyer–seller accounting mismatches. Against the ambition to mobilise >£1bn p.a. of private finance into nature by 2030 (Defra, 2023), timely clarity will matter; meanwhile, local frameworks should link stacking permissions to strong additionality tests and registry-based traceability to sustain confidence.

Reducing initial transaction/project costs

To enhance efficiency of market access and reduce entry barriers for new projects, the report highlights data availability as a core lever: significant upfront costs arise from baselining habitat, hydrological and soil conditions, so making "decision-grade data" widely available would materially lower initial transaction costs and speed delivery. In Oxfordshire, this principle is already being applied: large areas of the North-East Cotswolds have been hydrological and soil-carbon mapped through work by AtkinsRealis, Rothamsted Research and the North-East Cotswolds Farmer Cluster, with an IUK project part-funding hydrological mapping now underway across Cherwell District. Complementing this, the Oxfordshire Local Nature Partnership, working with the Trust for Oxfordshire's Environment (TOE), has developed a low-cost funding solution to help landowners finance baselining/feasibility studies—addressing one of the main hurdles for smaller participants.

On this basis, it is therefore recommended when developing an Oxfordshire based system that a county-wide mapping exercise is completed to consolidate datasets for better-informed decisions and LNRS aligned strategic planning, alongside risk-based, proportionate MRV to keep monitoring affordable over time. At a national scale, an authority-agnostic programme of catchment assessments would further reduce duplication and costs, with the ongoing Land Use Framework consultation potentially providing a route for such coordination (Defra, 2025).

Effective registries

Confidence in market infrastructure depends on reliable, high-integrity registries that record the full lifecycle of units from a given land parcel with creation, purchase, sale, pricing and retirement, and provide a transparent activity log (subject to commercially sensitive data). In researching this project we encountered first-hand the difficulty of accessing information on some established UK carbon platforms; similar barriers are highlighted in NASDAQ/Value

Exchange (2024), which flags the proliferation of registries and limited transparency on data and pricing as drivers of higher transaction costs and reduced participation. A well-designed registry that can accommodate multiple environmental services helps mitigate double-counting and clarifies attribution where stacking may occur. Given the cost and complexity of building such systems, an in-house registry is unlikely to be cost-effective; instead, it would be more appropriate for government-supported solutions that enable interoperability across nature markets, so units and claims are traceable even when several services are credited from the same parcel (NASDAQ, Value Exchange, 2024).

Financing projects & the role of public funding.

The Financing Nature Recovery report recommends deploying public funding to an appropriate local organisation on an outcomes-linked basis to retain flexibility, deliver multiple benefits and incentivise innovation, under clear principles for public spend (Young, 2022). It also highlights co-funding as a delivery lever, provided parties' rights and revenue shares are explicitly documented and standard practice in co-investment/joint ventures (Young, 2022). Because external grants can affect a landholder's ability to monetise specific services, and multi-benefit projects can blur who claims what, services must be clearly defined and measured, with effective registry infrastructure recording attribution and retirements across services to prevent overlapping sales or double-funding, supported by proportionate measurement to evidence impact.

Local delivery & community considerations

Projects should be designed and delivered locally so they reflect place-specific needs and opportunities, integrate with farming and forestry operations and local development goals, at an Oxfordshire scale and draw on the Local Nature Recovery Strategy to help target interventions. Local communities "need to be empowered and incentivised to both identify, plan and deliver landscape-scale projects" (Young, 2022), with delivery pathways tailored from hyper-local to landscape-scale depending on context. Existing county mechanisms can anchor this work e.g. the Local Nature Recovery Strategy, Climate Adaptation Route Map, farmer clusters, and catchment partnerships, providing governance touchpoints, pipelines of viable sites, and routes for engagement. As part of this project, Forum for the Future ran landowner and land-manager engagement to identify barriers to participation in nature markets, ensuring that proposed market rules, evidence expectations and financing options address real constraints on the ground and build social licence (Young, 2022).

Nature-Based Solutions: Standards, Governance and Local Delivery

What are Nature-based Solutions?

Nature-based Solutions (NbS) are defined as "actions to protect, conserve, restore, sustainably use and manage natural or modified terrestrial, freshwater, coastal and marine ecosystems which address social, economic and environmental challenges effectively and adaptively, while simultaneously providing human well-being, ecosystem services, resilience and biodiversity benefits". (UNEP Environment Programme, 2022).

The IUCN (International Union for Conservation of Nature) defines NbS as "actions to protect, sustainably manage, and restore natural or modified ecosystems, [in ways] that address

societal challenges effectively and adaptively, simultaneously providing human well-being and biodiversity benefits." (IUCN, 2016). When implemented effectively, NBS can deliver cost-effective, resilient solutions alongside additional benefits for both people and nature.

Guiding principles for use of Nature-based Solutions

Nature-based solutions (NbS) are not a substitute for rapid decarbonisation and must not delay urgent action to cut emissions; buyers and project developers should apply the mitigation hierarchy so that credits address only residual impacts (Nature-based Solutions Initiative (NBSI) et al., 2020; House of Lords Science & Technology Select Committee, 2021). NbS should involve a wide range of ecosystems on land and at sea, including the sustainable management of working lands and waters and, where appropriate, creation of novel ecosystems in and around cities; they should be designed, implemented, managed and monitored in partnership with local communities, fully respecting local rights and knowledge and generating local benefits. Crucially, NbS must support or enhance biodiversity and deliver measurable benefits, with protection of existing ecosystems emphasised, resilience embedded in design and rigorous carbon accounting where carbon benefits are claimed.

Operationally, these principles mean prioritising protection before restoration, taking an outcomes-based approach, and documenting transparent baselines, monitoring and governance so trade-offs are handled openly and fairly. Projects should align with locally relevant plans and evidence, demonstrate additionality, and ensure that social safeguards, inclusive participation, and clear benefit-sharing are in place from the outset. Where carbon outcomes are part of the claim, methodologies and verification must be conservative and auditable; where biodiversity is primary, uplift should be quantified and disclosed using recognised metrics. Taken together, these guardrails ensure NbS "benefit the climate, nature and people," uphold integrity across the project lifecycle, and maintain public trust (NBSI et al., 2020; House of Lords, 2021).

IUCN Global Standards for Nature-based Solutions

The IUCN Global Standard for Nature-based Solutions provides an overarching, definitive concept with eight criteria and 28 indicators to ensure the approach is credible and its uptake tracked and measured for adaptive management, increasing project credibility with investors and stakeholders and offering a common framework to discuss trade-offs (IUCN, 2020). In brief, the Standard requires that NbS address eight key criteria as shown in Figure 3: they tackle priority societal challenges, are designed at the right scales, deliver a net gain to biodiversity and ecosystem integrity, are economically viable, are grounded in inclusive, transparent governance, balance trade-offs fairly, are managed adaptively based on evidence, and are sustainable and mainstreamed within the relevant jurisdictional context (IUCN, 2020). While facilitative and based on self-verification, the Standard stresses scientific rigour, good governance and transparent disclosure so NbS remain environmentally sound, socially just and economically feasible (IUCN, 2020).

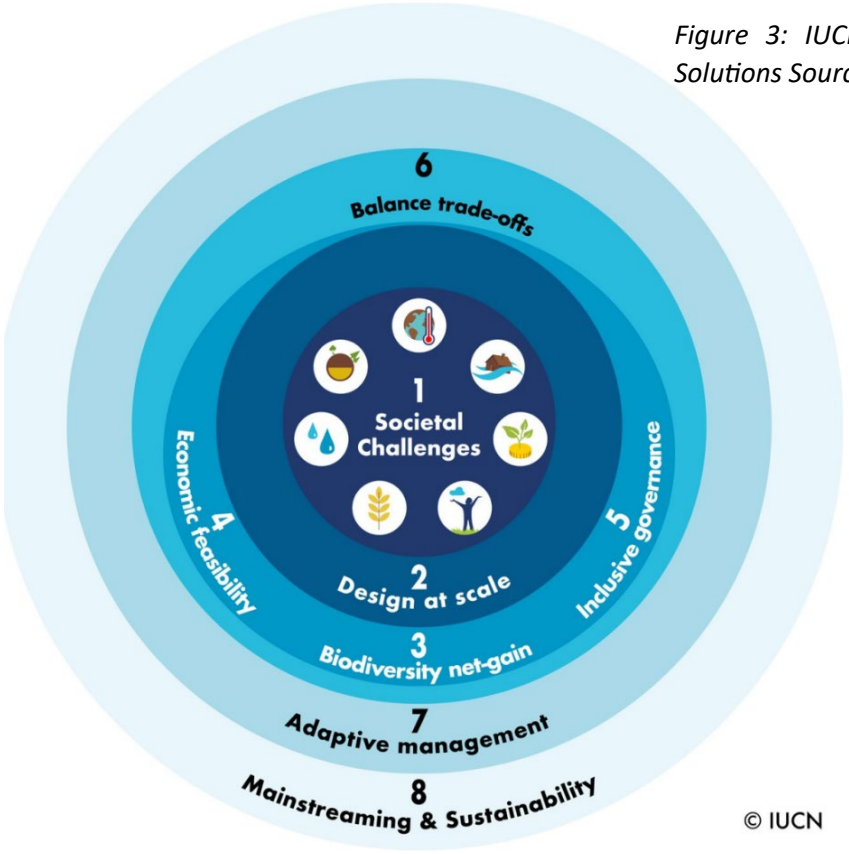


Figure 3: IUCN Key Criteria for Nature-based Solutions Source: (IUCN, 2020)

Place-based and responsible investment signals; credit design

The Scottish Principles for Responsible Investment in Natural Capital emphasise integrated land use (four capitals), community benefit and wealth-building, meaningful engagement/collaboration, values-led investment, high environmental integrity (use of WCC/Peatland Code; transparent transactions via the UK Land Carbon Registry), and support for diverse, productive land ownership—noting practical challenges of pre-acquisition engagement in competitive sales (Scottish Government, 2024). The UN PRI may indirectly shape buyer behaviour, though Oxfordshire's framework will primarily hinge on transparency and governance (UN PRI, 2025). Credit mechanics differ by market: carbon vs. biodiversity credits vary in replicability, measures and locality; IAPB underscores the local nature of biodiversity units, limiting like-for-like offsetting beyond very local scales, while WCC is exploring a "Carbon+" credit to reflect biodiversity uplift alongside carbon (IAPB, 2024; Woodland Carbon Code, 2025). Oxfordshire's principles should prioritise local focus and clear unit definitions that account for ecological equivalency, uncertainty, time lags and geographic disparities (Reed et al., 2023).

Biodiversity credit integrity (IAPB)[5] and UK market signals

The IAPB sets high-level principles across outcomes, equity and governance: allow ex-ante units (sold in advance based on expected future outcomes) only with clear disclosure that they are not verified; prioritise ex-post (units issued only after outcomes are delivered and verified) issuance; tailor verification so costs are proportionate and do not exclude small or locally led projects; and tailor additionality by credit type (uplift/avoided loss vs maintenance). Safeguard secondary trading through transparent governance, tracking, retirement and profit-sharing

[5] International Advisory Panel on Biodiversity Credits

where appropriate; require baselines, durability, MRV and third-party audits so outcomes are verifiable, fairly claimed and socially robust (IAPB, 2024). Complementing this, the UK Nature Markets Framework aims to "hardwire integrity and trust" by clarifying market rules, preventing greenwash, requiring that purchases are additional to in-value-chain action, and putting standards and governance at the core, with BSI's 700-series standards developing the underpinning market architecture (Defra, 2023).

As part of its Biodiversity framework for high integrity biodiversity credit markets, the IAPB Working Group published a set of (21) high-level principles, grouped in three overarching themes, outlined in Table 1 (International Advisory Panel on Biodiversity Credits, 2024).

Table 1: IABP High Level Principles

IABP High Level Principles		
Verified Outcomes for Nature	**Equity and Fairness for People**	**Good Governance for markets**
Lifecycle	**Rights**	**Transparency**
1. Defined biodiversity objectives and activity type 2. Demand integrity and the mitigation hierarchy 3. Credit issuance and tracking 4. Ex ante and ex post credits	11. Legal and customary land and water rights 12. Respecting human rights and the rights of Indigenous Peoples 13. Free, prior and informed consent	18. Transparent governance structure
Criteria	**Inclusion & Rewards**	**Accountability**
5. Additionality 6. Baselines 7. Durability 8. Leakage	14. Indigenous Peoples and local communities' involvement in governance 15. No harm 16. Benefit sharing 17. Grievance Mechanism	19. Data sovereignty 20. Alignment with frameworks 21. Tradability
Validation		
9. Monitoring, reporting and verification 10. Third-party audits		

Market architecture & regulatory resilience

Reed et al. (2023) outline governance mechanisms spanning standards and assurance frameworks; given multi-decadal horizons and the critical role of registries/crediting programmes, policymakers should consider FCA-style oversight or an equivalent regime (with orderly wind-down/transfer provisions and sustainable funding) to manage systemic risk and operator failure.

The Scottish Principles for Responsible Investment in Natural Capital highlight the that investors (or buyers) should meet the UN Principles for Responsible Investment Source and are outlined in Table 2 (UN Principles for Responsible Investment, 2025).

Table 2: Scottish Principles for Responsible Investment

Principles for Responsible Investment:
1 We will incorporate ESG into investment analysis and decision-making processes.
2 We will be active owners and incorporate ESG issues into our ownership policies and practices.
3 We will seek appropriate disclosure on ESG issues by the entities in which we invest.
4 We will promote acceptance and implementation of the Principles within the investment industry.
5 We will work together to enhance our effectiveness in implementing the Principles.
6 We will each report on our activities and progress towards implementing the Principles.

Governance for high-integrity markets

High integrity demands a whole-systems approach that links standards, assurance and market actors, underpinned by transparency, accessible information and inclusive participation with clear routes for grievances and disputes (IAPB, 2024). Comparative reviews highlight a common governance spine: robust, coherent and transparent structures with identified oversight bodies; alignment with legal and regulatory frameworks; strong protections against double-counting (especially where stacking occurs); and public registries with unique identifiers recording issuance, transfers and retirements, anchored by additionality, permanence, leakage controls and independent, proportionate MRV (Reed et al., 2023; Defra, 2023). For Oxfordshire this implies clear roles and decision rights, conflict-of-interest rules, interoperable registries, annual integrity reporting and where appropriate Financial Conduct Authority-style oversight, aligned with the Local Nature Recovery Strategy and transparent blending of public and private finance.

Standards must ensure environmental and social safeguards so projects “do no harm,” often aiming for net positive impacts such as biodiversity uplift, community benefit-sharing and resilience, with inclusive engagement of affected and under-represented groups and projects open to feedback over their duration (Reed et al., 2023). Markets should be as easy and low risk to access as possible without compromising integrity—clarifying stacking rules, tax and public-payment interactions, and using public finance to de-risk and crowd-in private capital (Reed et al., 2023). Complementary buyer principles from the Wildlife Trusts, RSPB, National Trust and Finance Earth (2023) stress alignment with the mitigation hierarchy (prioritising avoidance and minimisation of biodiversity loss before offsetting) and a Paris-aligned net-zero strategy, plus exclusions or conditionality for certain high-impact sectors unless there is a demonstrable commitment to a just transition; these buyer provisions should be embedded in transaction documentation for the life of the project.

Applying Nature-based Solutions in Oxfordshire

Oxfordshire projects should reflect place-specific needs and opportunities, integrate with farming and forestry, and use the Local Nature Recovery Strategy (LNRS) to target interventions and connect local actions to landscape-scale recovery. Local communities “need to be empowered and incentivised to both identify, plan and deliver landscape-scale projects,” drawing on county mechanisms such as the LNRS, the Oxfordshire Climate Adaptation Route Map, farmer clusters and catchment partnerships for pipelines, governance and engagement.

A practical constraint is funding asymmetry: short-term public funds (often 2–3 years) versus multi-decade maintenance requirements (e.g. 30+ years for Biodiversity Net Gain and woodland), with carbon revenues alone unlikely to cover long-term costs. The report therefore supports outcomes-linked public funding delivered through an appropriate local organisation,

blended with private finance and underpinned by clear principles for attribution, additionality, permanence and disclosure. In operational terms, projects should prioritise ex-post issuance (units issued only after outcomes are delivered and verified) and apply risk-based monitoring, reporting and verification (MRV); where ex-ante units (sold in advance based on expected future outcomes) are used, they should be backed by clear safeguards and credible funding plans for the full project lifetime.

Insetting and its Role in Achieving Net Zero

What is insetting and where it works in supply chains

A growing number of businesses and organisations are focusing on reducing emissions through their own supply chain, a practice known as "insetting", or "in-value-chain interventions". The International Platform for Insetting ("IPI") defines insetting as "Interventions by a company in or along their value chain that are designed to generate GHG emissions reductions or carbon removals, and at the same time create positive impacts for communities, landscapes and ecosystems." (International Platform for Insetting, 2022).

In the context of agricultural supply chains, for cereal buyers, for example, it creates an opportunity for investment to deliver both carbon sequestration/storage and wider environmental benefits within the supply area, such as biodiversity enhancement, soil health improvement and more resilient landscapes. Through enhancing landscape resilience, it also supports the potential for more sustainable rural economies and communities. As outlined in Table 3 companies are already investing in supply chain emissions reductions.

Table 3: Examples of supply chain emission reductions

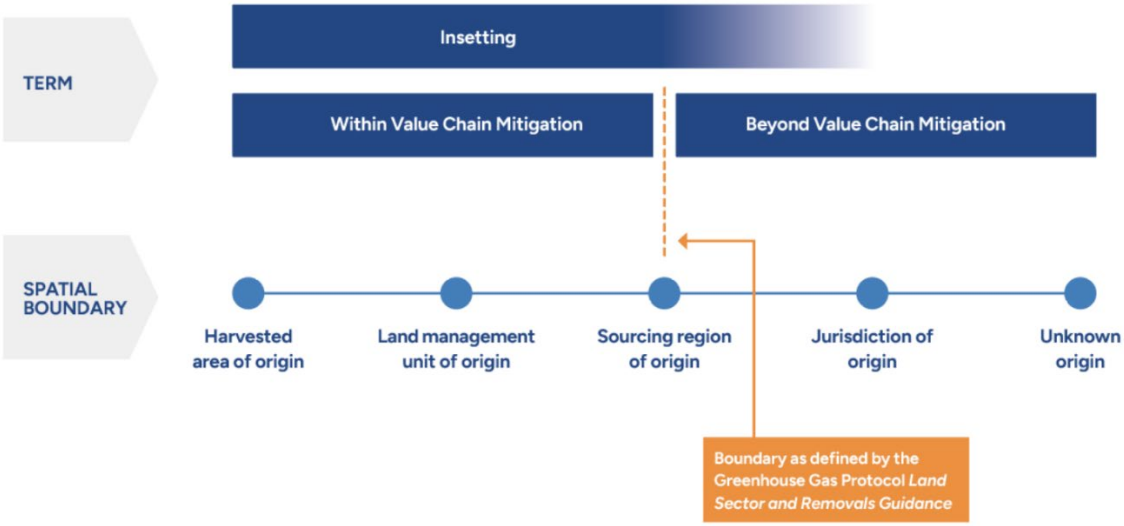
Organisation/ (business type)	**Programme**	**Summary**	**Benefits**
Accor (Hotels & hospitality)	Plant for the Planet reforestation scheme: Introduced 2009, over 7million trees planted in farms supplying hotels across France, Morocco & areas of Asia, funded through the hotel restaurants	Encouraging regenerative agriculture & tree planting for F&B suppliers	Reduced Scope 3 emissions Soil carbon sequestration Improved biodiversity in supplier areas; Community benefits (enhanced livelihoods)
Nestle/Nespresso (Coffee producer)	AAA Program & Agroforestry	Tree planting to enhance coffee plantation resilience	Carbon sequestration Water storage enriched biodiversity additional income streams (timber, fruits)
Nestle UK	Nestle Milk Plan: Partnership with First Milk cooperative, for suppliers within 50mile radius of Nestle factories in Cumbria and Ayrshire	Farmers rewarded for actions to target net zero 2050, and wider biodiversity & environmental enhancement on-farm.	Since 2017: 42.2km of new hedgerows 44km watercourse fencing 12.6ha woodland planted community involvement e.g. school visits delivering premium price for milk for such actions

Source: (International Platform for Insetting, 2022)

Within vs Beyond-Value-Chain Mitigation

As IPI's survey observed, "there's a difference between activities directly happening in the value chain and activities happening around it." In this framing, Within Value-Chain Mitigation (WVCM) and beyond value-chain mitigation (BVCM) follow the Greenhouse Gas Protocol's Land Sector and Removals Guidance and were applied to agriculture by 3keel (2025). While the primary focus of this project is nature-based carbon in the context of offsetting, insetting is becoming increasingly important as organisations seek to mitigate the impact of their activities; where firms can utilise on-site mitigation (removals or reductions), this may, in the case of the former, count towards reducing their own residual emissions.

Figure 42: GHGP Boundary definition for within and beyond-value chain mitigation in agriculture. Source: (3keel, 2025)



For organisations that have been targeting emissions reductions, one of the harder areas of their business to deliver emissions reduction is in indirect, or "Scope 3" emissions. These are defined as emissions that are within the value/supply chain of an organisation but over which an organisation has no direct ownership or control.

Integrity challenges with insetting

The International Platform for Insetting (IPI) highlights recurring challenges: limited guidance on quality and claims, unclear on-farm vs near-farm applicability, bespoke arrangements requiring closer buyer–supplier interaction, claiming risks across the supply chain, and traceability issues that raise double-counting risk—particularly where outcomes are non-specific or not tied to site-level evidence (IPI, 2022). While effective registry mechanisms can mitigate double-counting, registries are seldom used for insetting at present; consequently, any local insetting pathway should prioritise clear attribution, project-level documentation, and conservative accounting, with transparent contracting and, where feasible, registry-linked tracking to make claims verifiable.

Local Application and Lessons Learned

Looking ahead, insetting in Oxfordshire should build on these lessons by prioritising simple, transparent pathways that work for both buyers and land managers. Where local authorities control land, they can lead by example by delivering nature-based solutions on their own estate (e.g. woodland and tree-belt creation, revised verge and park management, and on tenanted farms encourage regenerative soil management and hedgerow/woodland creation). Attributing any incremental sequestration to their own residual emissions. For private supply

chains, future insetting offers should be framed clearly both within the and beyond value-chain mitigation concepts used by the Greenhouse Gas Protocol and 3keel (2025), use proportionate but robust monitoring, reporting and verification, and where feasible, link to registry-style tracking so claims are specific, auditable and not double-counted. In all cases, insetting schemes should align with the Local Nature Recovery Strategy, support fair reward and risk-sharing with farmers, and encourage buyers to fund multiple outcomes (climate, nature, resilience and social benefits) rather than carbon alone, helping to embed high-integrity value-chain action within Oxfordshire's wider nature recovery ambitions.

Carbon Market Credits and Offsetting Considerations

What is Offsetting in the context of Net Zero?

The Climate Change Committee (2020) notes that "The UK's net zero target will not be met without changes in how we use our land". In this context, the Oxford Offsetting Principles (2024) define Net Zero as an actor's reduction of emissions "as far as possible following science-based pathways, with any residual GHG emissions attributable to that actor being fully compensated by removals with low risk of reversal, exclusively claimed by that actor, either within their own value chain or through the purchase of high-integrity credits" (Axelsson, et al., 2024). Organisations should first cut emissions through new technology and practice change; where residual emissions remain, these may be counterbalanced through the purchase and retirement of carbon credits that represent verified, additional removals or reductions, on a tonne-for-tonne basis (Oxford Principles, 2024).

The Oxford Principles describe carbon neutrality as a "functionally equivalent concept" but potentially lower-integrity if it lacks deep emissions reductions and/or if residuals are not compensated by removals with low risk of reversal (Axelsson et al., 2024). Offsetting can involve removals (e.g., woodland creation or engineered CO_2 removal), reductions (e.g., renewable energy or efficiency), and avoidance (i.e., emissions that might have occurred absent the project) (Friedmann et al., 2023). To maintain integrity, credits used to address residuals should reflect real, additional, verifiable outcomes with durable climate benefit and be exclusively claimed by the buyer making the assertion—supporting Net Zero aligned use of credits rather than substituting for necessary internal decarbonisation (Oxford Principles, 2024).

Who certifies carbon credits?

The voluntary carbon market (as distinct from compliance carbon market, such as the UK-Emissions Trading Scheme) currently has limited regulatory oversight. Significant strides have been made in the past year or so as the VCM seeks to increase integrity, through initiatives such as:

- ICVCM Core Carbon Principles
- VCMI Buyer claims code of practice
- Increasing government initiatives to enhance integrity of the voluntary carbon market in the UK (e.g. nature market standards developed with BSI, publication of consultation on voluntary carbon and nature market principles)

Despite the above, there is still no universally recognised certification regime, or global standard, for certifying different forms of carbon credits. The main certification organisations are summarised in the table below, with Verified Carbon Standard ("VCS") and Gold Standard being the larger.

Buyer/Demand side considerations

Buyers should apply the mitigation hierarchy and use credits in addition to ambitious within-value-chain action, so that offsets address only residual emissions on a tonne-for-tonne basis and are exclusively claimed by the purchaser (Oxford Offsetting Principles, 2024). Claims must be accurate, conservative and time-bound, with transparent links to registry retirements, and disclosure of volumes, vintages and project identifiers; portfolios should transition over time toward removal credits with low risk of reversal to remain net-zero aligned (Axelsson et al., 2024).

The VCMI Claims Code of Practice (2024) sets Foundational Criteria (e.g., a science-aligned pathway and near-term targets) that organisations must meet before making a Carbon Integrity Claim, and then validates tiered claims via public disclosure and independent assurance. From January 2026, credits used toward VCMI claims are expected to be ICVCM Core Carbon Principle (CCP)-eligible, signalling supply-side quality. The Code emphasises purchasing and retiring high-quality credits proportional to remaining emissions, encourages investment in removals as fundamental to net zero, and recognises the need for more accessible pathways for SMEs while maintaining integrity (VCMI, 2024).

Each category of claim requires the organisation to purchase and retire "high quality" credits proportionate to the organisation's remaining emissions. All credits will, from January 2026, need to be ICVCM CCP-eligible (i.e. the underlying credit programme has been assessed as meeting the Core Carbon Principles).

The claims enable an organisation to demonstrate that they are going above and beyond their own internal actions and, in the case of Platinum claims, that they are accelerating global net zero. In order to make Carbon Integrity Claims, the organisations need to have demonstrated progress towards, or that they have met, their near-term targets to reduce emissions.

1) For credits to meet the "Required carbon credit use and quality thresholds", "High Quality" credits are needed. These are defined as those credits that meet ICVCM's Core Carbon Principles and qualify under ICVCM's Assessment Framework (see below, "Supply-side Considerations" – for more detailed discussion of the ICVCM framework). There are also disclosure requirements for organisations in respect of the credits purchased (e.g. number purchased and retired, source project, and details relating thereto, whether there are co-benefits arising from the project).

   VCMI does not specifically require the purchase and retirement of either type of reduction or removal credit to make the Integrity Claims. They should prioritise projects based on the quality of the climate mitigation and co-benefit impacts that are expected to be delivered. VCMI encourages investment in carbon removal projects as these are seen as "fundamental to achieving net zero emissions".

2) Underpinning the above is the requirement to obtain third party verification and assurance of claims and key metrics. "Transparent reporting and assurance of information is essential.". Despite this requirement, there is a reliance on the assessment framework, and no underlying review of individual projects takes place.

Supply-side considerations

On the supply side, the Integrity Council for the Voluntary Carbon Market (ICVCM) has established Core Carbon Principles (CCPs) as an identifiable quality threshold for crediting programmes, aiming to ensure credits deliver "real, additional and verifiable climate impact with high environmental and social integrity" (ICVCM, 2024). Under the CCP Assessment Framework, a programme can become CCP-Eligible if its governance, methodological rules, MRV, and registry procedures meet the criteria; only credits issued under such programmes are CCP-Approved and ex-ante credits are ineligible, so instruments such as Woodland Carbon Code Potential Issuance Units (PIUs) do not qualify (ICVCM, 2024). The Framework requires transparent and robust governance (independent boards, annual reporting, AML[6]/ABC[7] policies), independent VVBs[8] with programme oversight of verifier performance, and registry controls over issuance, transfer and retirement; ICVCM also recognises overlap with CORSIA, permitting CORSIA-eligible programmes to qualify subject to additional requirements (ICVCM, 2024). Additionality is assessed at the programme/method level (legal additionality must exceed host-country requirements) using accepted approaches, investment analysis, barrier analysis, market penetration/common practice, or standardised approaches, with guidance on "prior consideration" where activities start before validation (typically 2–3 years between start and VVB validation) (ICVCM, 2024).

Permanence refers to how long removed CO_2 stays out of the atmosphere; where reversal risks exist e.g. forestry, peatland and wetland restoration, agricultural soil carbon, or conservation/avoided conversion programmes must require monitoring and compensatory mechanisms (buffers, insurance, programme-level reserves) (ICVCM, 2024).

The key outputs and recommendations from the CIWP report are:

1) Definition of key terms such as avoidable reversal or unavoidable reversal to enhance consistency across different crediting programmes;
2) Requirement that, upon ending of monitoring and verification within the minimum project term, a "compensation liability equivalent to the amounts of credits that a project previously contributed to a pooled buffer reserve" be established i.e. treat ending as an avoidable reversal;
3) Recommendation for pilot stress testing of pooled buffer reserves with a view to considering "whether and how to incorporate mandatory stress testing";
4) Exploration of options for extending 40 year minimum monitoring & compensation period, potentially to 100 years, but in a way that incentivises project proponents to design their own mitigation activities in a manner that makes them "as durable as feasible" (e.g. use of insurance, establishment of a permanence fund, use of industry-wide pooled buffer reserve).

Future work focus of the ICVCM: simplified approaches for small projects

The ICVCM work program has noted there may be opportunities for the development of simplified approaches to progress smaller projects but without compromising on high integrity. Options identified for potential consideration include:

[6] Anti-Money Laundering
[7] Anti-Bribery and Corruption
[8] Validation and Verification Bodies

- Defining a cutoff for smaller projects and eligibility requirements for issuers and programs;
- Use of standardised assumptions with appropriate allowance for conservatism;
- Utilising existing frameworks to simplify and streamline risk assessment processes;
- Applying sample-based approaches; and
- Use of nationally-regulated mechanisms for accreditation and verification of credits.

For this project, alignment with ICVCM's CCPs would be regarded as a critical underpinning to support wider market acceptability of any local initiatives. There are challenges with engaging smaller projects within such a framework, and consideration as to appropriate thresholds is needed.

The ability to influence this at local level, however, is likely limited by the fact that the CCPs are typically applied at the level of the carbon crediting programme (e.g. Woodland Carbon Code) rather than specific projects. An option, though requiring significant up-front investment, would be to develop a local crediting programme which seeks ICVCM approval, however it is unlikely that such an approach would be financially viable, unless rolled out on a regional, or national scale.

Other Relevant Considerations

Tenant farming: access, leases and fair rewards

Most nature-based activity will take place on farmed land, the Rock Review found over 40% of tenant farmers faced three main blockers to entering private natural-capital schemes: the need for advice, the need for landlord consent, and uncertainty of new markets (Rock et al., 2022). It highlights constraints from the current leasehold regime (Agricultural Holdings Act 1986; Farm Business Tenancies 1995) and short FBT[9] terms (typically <4 years), and recommends revised agreements, joint landlord–tenant grant applications, and allowing small-scale tree planting and hedgerows (≤0.5 ha) without landlord consent. With 40% of farms under 20 ha in England, engaging smallholders, many of them tenants, is essential (Rock et al., 2022; Green Finance Institute, 2023).

The Review also proposes screening EWCO so high-grade land is not planted, protecting productive capacity and avoiding tenants being displaced by landlord-led natural-capital strategies if carbon prices rise (Rock et al., 2022). It calls for clear guidance so landlords retain the natural-capital "asset" while tenants receive the ecosystem-services "income", plus a single Defra portal for woodland schemes and better valuation of nature interventions in land and lending decisions, echoing Forum for the Future feedback on clarity, fair benefit-sharing and practical support (Forum for the Future, 2025).

Market design enablers and finance

The Green Finance Institute (GFI) notes that "a lack of clarity around additionality, stacking and bundling and the tax implications of generating income through these markets has decreased trust and limited engagement by farmers and land managers". It calls for overarching principles across environmental markets, including transparent governance and recognised registries, proportionate and cost-efficient MRV, scientifically robust quantification, strong double-counting controls, community and social safeguards, clear

[9] Farm Business Tenancy

delivery and maintenance timeframes, risk-mitigation tools, buyer standards based on the mitigation hierarchy and nature-risk disclosures, and clear additionality rules. While the UK Green Taxonomy has been discontinued, the underlying “do no significant harm” intent remains good practice (GFI, 2023).

Given the predominance of small farms, GFI stresses that time, cost and access to expertise are major barriers and highlights the value of farmer groups and clusters to share knowledge, aggregate projects and improve market access (GFI, 2023). For Oxfordshire, these points to clear, tenant-aware contracting, locally accessible data, proportionate MRV and clustered delivery models so smaller holdings can participate credibly at lower transaction cost.

Local Government Reorganisation

Local government reorganisation (LGR) and the proposed Mayoral strategic authority introduce a degree of structural uncertainty that will affect how any Oxfordshire-wide carbon and nature market principles are adopted and implemented by Local Government. Over the next few years, the current six-council model is expected to be replaced by one, two or three unitary councils, with final proposals submitted to Government in late 2025, a decision anticipated in 2026 and new council structures potentially taking effect from April 2028. In this context, a county-level framework for high-integrity carbon and nature markets will need to be designed so that it can be used immediately by existing councils on a voluntary basis (e.g. in procurement, investment decisions and project design), but is also flexible enough to be adopted, adapted or scaled by any successor unitary council(s) and also by a future mayoral combined authority.

Stakeholder Engagement Across Oxfordshire

Engagement process and stakeholder mapping

A series of workshops and targeted engagement with key stakeholders across the county has been completed with an initial mapping exercise identifying the main actor groups in local nature markets: farmers, landowners and farmer clusters; corporate organisations as potential buyers; delivery partners such as the Trust for Oxfordshire’s Environment; local authority partners (Cherwell, South Oxfordshire, Vale of White Horse, West Oxfordshire, Oxford City Council and Oxfordshire County Council); and environmental NGOs and other delivery organisations. These groups were engaged through complementary routes, including Forum for the Future’s landowner interviews, 3Keel’s market assessment and business outreach, local authority economic development teams, an Ecosystem Knowledge Network (EKN) business seminar, and joint workshops with Oxford City Council’s IUK Pathfinder team. This engagement was designed to dovetail with existing climate and nature plans—district net-zero trajectories, the emerging Local Nature Recovery Strategy (LNRS) and councils’ offsetting principles—so that any local market framework can support project identification, procurement decisions and reporting while remaining aligned with national standards.

Landowner engagement: Forum for the Future

Between February and June 2025, Forum for the Future engaged a cross-section of landowners and managers (18–5,000 acres), including small farms, larger estates, clusters and environmental organisations. Most interviewees had already explored, or were implementing, nature-friendly farming or nature-recovery projects. They highlighted recurrent

challenges: cash flow and low farm-gate prices; weather unpredictability and animal health risks; short-term government funding cycles for long-term transitions; and limited access to trusted advice on how to manage land over the next decade. On marketplaces, landholders raised concerns about inconsistent baselining tools, long-term obligations and ownership transfer (e.g. BNG), up-front costs for surveys, legal advice and project design, and a perception that environmental schemes can favour protection and restoration at the expense of food production unless explicitly framed to support both.

Landowner priorities included financial support and skilled expertise, visibility of the benefits achieved, and policy stability and long-term guarantees. For the framework, interviewees called for a simple, accessible system that connects buyers and sellers, enables delivery at landscape scale via clusters, and shares risk and benefit over the long term with clear exit and "sunset" mechanisms. They emphasised the importance of no minimum land size, consistency with national/voluntary schemes, and trusted local governance. Common themes included accessibility for those with least capacity to engage; a landscape approach linked to the LNRS; flexibility for different tenure types (freeholder and tenant); early and meaningful community engagement; consistent metrics; trust; long-term commitments; and up-front support for advice and baselining. Some also cautioned that relying on nature credits to subsidise income could risk entrenching inequalities in the food system, and views differed on whether buyer eligibility should be restricted all issues that merit further exploration through future workshops (Forum for the Future, 2025).

Workshops, business feedback and links to council plans

A joint workshop with Oxford City Council's IUK Pathfinder team (September 2024) tested criteria for high-integrity insetting and offsetting with local authority climate and nature teams, the Local Nature Partnership, Low Carbon Hub and university representatives. Across both nature-based and retrofit projects, participants identified common essentials: high-quality proposals, demonstrable social value and carbon savings, no double counting, clear additionality ("must require the funding"), proven ownership, contingency plans, and adaptation and resilience benefits. For nature-based projects, they emphasised measurable nature uplift, secured funding for long-term maintenance and monitoring, and priority for areas of multiple deprivation and high LNRS impact. On social value and engagement, participants stressed equitable distribution of benefits (social and geographic), clear and accessible public-facing language, and an outward-facing, community-informed approach. There was broad agreement that integrity requirements must be pragmatic and risk-based—setting higher thresholds for larger organisations with more capacity, while providing proportionate routes for SMEs and community-led initiatives.

At the Ecosystem Knowledge Network breakfast seminar (March 2025), businesses from small local enterprises to multinationals expressed strong interest in locally sourced carbon units and in funding local nature projects that deliver wider co-benefits and long-term relationships (e.g. volunteering), even where certified credits are not strictly required for formal emissions pathways. This confirmed that, alongside a credit marketplace, there is a wider "nature capital market" in which grant funding and repayable finance help projects reach investable maturity. For councils, this aligns with emerging offsetting principles and supports the plans of Cherwell, West Oxfordshire, Oxford City and Oxfordshire County Council by widening the pipeline of Oxfordshire-based projects that meet integrity tests while delivering local co-benefits.

Cross-cutting themes for the framework

Across interviews and workshops, several cross-cutting design themes for the Oxfordshire Nature Market Principles emerged:

1. Capacity to engage – the marketplace must be accessible to those with the least time, money and expertise.
2. Landscape approach – projects should contribute to a holistic picture of nature recovery across Oxfordshire, explicitly linked to the LNRS.
3. Flexible farming models – the framework must work for different tenure types and business models, including tenant farmers and smallholders.
4. Community engagement – involving communities in project design supports better social outcomes and multiple long-term benefits.
5. Consistency with wider standards – metrics, conditions and tools should be consistent with national and voluntary schemes to reduce complexity.
6. Linking buyers and sellers – the framework should actively facilitate relationships and communication between landowners and buyers.
7. Trust and local stewardship – governance is more credible where managed by trusted local organisations with strong engagement and advisory capacity.
8. Long-term commitments and exits – contracts and governance need to support long-term commitments, with clear provisions for exiting schemes and orderly wind-down.
9. Up-front support – a mechanism is needed to support early-stage advice, feasibility and baselining costs, especially for smaller participants.

Taken together, this engagement has shaped the draft Oxfordshire Carbon Market Principles as a high-integrity, locally grounded framework that can work with, rather than against, farm economics, community priorities and existing council plans, while remaining compatible with emerging national and international standards.

Draft Principles

The following draft principles translate the core integrity pillars outlined in this report for a proportionate, Oxfordshire-focused framework for nature and carbon market activity. They are intended to guide both project developers and buyers, ensuring that locally generated credits are additional, transparent, long-lasting and socially grounded, while remaining practical for smaller organisations and aligned with emerging national and international standards.

Principle	Core Requirements	Practical Considerations
1) Mitigation first: Offsetting as a last resort	Buyers should follow a clear mitigation hierarchy: avoid and reduce impacts first, then use credits only for residual emissions or unavoidable impacts.	• In the case of carbon credits, purchasers are expected to have taken, or be taking, action to cut emissions within their own value chain, with offsetting used as a last resort rather than a primary decarbonisation tool. • Larger organisations would normally evidence this through defined transition pathways or science-based targets; smaller organisations are not expected to meet the same level of formality but should still demonstrate concrete actions and intentions that attest to a genuine commitment to reduction.
2) Projects are Oxfordshire-based (or on boundary)	Credits and units should, wherever possible, be generated from projects located within Oxfordshire or immediately adjacent to its boundary, so that benefits accrue to local people, landscapes and economies.	• Projects should align with the Local Nature Recovery Strategy and other relevant local plans, helping to connect hyper-local interventions to landscape-scale recovery. • It is recognised that Local Government Reorganisation (LGR) may change administrative boundaries over time; the geographic definition of “local” may therefore need periodic review to remain coherent with any new unitary arrangements.
3) Transparency	Projects are expected to make key information publicly available and free to access, in clear and accessible language. At a minimum this should include site location and boundary, baseline conditions, the proposed intervention and management plan, anticipated outcomes and proposed credit issuance, timelines, and details of any relevant public funding.	• Regular update reports and registry entries should document verification events, issuance, transfers and retirements. • Methodologies, assumptions and any material changes over time should be disclosed so that third parties can understand how outcomes have been calculated and how risks are being managed.

4) Robust quantification, verification and application of conservative methods	Units and anticipated outcomes must be robustly quantified and independently verified, using recognised methodologies and measurement approaches that are applied consistently from baseline through to subsequent monitoring.	• The basis of calculation of benefits should be disclosed, together with the names and roles of relevant parties undertaking surveys and calculations (in-house or external, and whether independent). • Where uncertainty exists, projects should use conservative baselines, buffers or discounts so that credited outcomes err on the side of caution. • Monitoring, reporting and verification should be proportionate to project size and risk, but always sufficient to give confidence that credited outcomes are real, measurable and not overstated.
5) Additionality	Project benefits should be additional to what would otherwise have happened, with no existing legal requirement to undertake the measures proposed. As a default, only a legal and environmental/baseline additionality test is required: activities that are already mandated by regulation, contract or grant conditions (or that have already been undertaken to reduce the project-area baseline in the previous [10] years) should not be credited.	• Financial additionality is not proposed as a general requirement at framework level, although it may still be required under specific crediting programmes such as the Woodland Carbon Code; • Where such programmes are used, their tests will apply in addition to the local legal/baseline test.
6) Avoidance of unintended Consequences / Greenwashing	Projects should be designed to avoid or minimise material negative outcomes and leakage, and to prevent greenwashing. This includes considering Local Nature Recovery Strategy objectives and other local environmental plans/strategies when developing and implementing projects, so that actions do not inadvertently undermine food production, flood risk, access, or other ecosystem services	• Ownership of any credits or units must be transparent and recorded effectively via appropriate contractual documentation and registries to minimise the risk of double-counting or double-selling. • Claims by buyers should be consistent with the type and share of units they hold and not exaggerate the contribution of credits relative to their own direct actions.
7) Lasting Benefits & Permanence	Project benefits should last for at least as long as the lifetime of any credits or units being issued and be appropriately secured over both the project lifetime and against unanticipated events such as fire, disease or drought.	• As reference points, biodiversity net gain legislation currently stipulates a minimum of 30 years, while emerging international carbon integrity benchmarks (e.g. ICVCM) suggest minimum monitoring and compensation periods of 40 years or more. • The mechanism for securing permanence—such as section 106 agreements, conservation covenants,

		project-level or pooled buffers, or insurance, should be clearly specified, together with a funding plan and reversal management approach that ensures buyers and communities are protected over the long term.
8) Community Engagement/ Wider benefits are preferred	Local communities should be engaged as part of project development, with time allowed to understand local priorities and potential impacts, and with projects remaining open to feedback over their duration. Project design should consider social, economic and well-being impacts, and where appropriate, share benefits, for example by improving access, supporting local jobs or volunteering, enhancing "tree equity" and canopy cover, or delivering health and well-being outcomes.	• Alignment with the LNRS should help identify where nature recovery and wider benefits can be optimised. • Actions that take land out of productive use should, as a default, avoid best and most versatile agricultural land (grades 1–3a) so that nature recovery does not unduly compromise food production, and should pay particular attention to fair outcomes in landlord–tenant relationships.
9) Sale of credits/units	Where credits or units are issued, they should use independently accredited or otherwise recognised crediting programmes, with registry details provided so that units are uniquely identified and traceable. For carbon, credits should come from an Integrity Council for the Voluntary Carbon Market Core Carbon Principles (ICVCM CCP)-eligible programme once such eligibility is in place; for biodiversity or other ecosystem services, programmes should meet equivalent high-integrity benchmarks.	• Sellers should apply the mitigation hierarchy, where relevant (for example, in carbon or biodiversity markets), and clearly state whether units are single-service, explicitly stacked, or form part of a bundled product. • Stacking or bundling status, registries used, and the defined area of supply should be disclosed so that buyers and regulators can understand how different benefits relate to one another and avoid double-counting.
10) Buyers	Statements or claims concerning the use of credits or units, or of investment into projects, must be fair, clear and not misleading, and should only rely on credits that represent validated and, where required, verified outcomes. For carbon, buyers should publicly affirm their reduction plans or emission-reduction strategy such that credit purchases are clearly framed as a last resort to address residual emissions, with a preference for removal-based credits that have low risk of reversal. Public commitment to achieving Net Zero emissions alongside a robust, credible plan to achieve net zero.	• Buyers are encouraged to source credits from projects within Oxfordshire (or close proximity) to enhance local benefits and accountability. • Where carbon units are used for insetting within value chains, suppliers should ensure that internal carbon prices are comparable and transparently disclosed. • An eligibility screen for buyer activities (for example, excluding certain environmentally or socially harmful sectors unless there is a demonstrable and credible just-transition pathway) may be applied where proportionate, to protect the reputation and integrity of the local market.

Additional Guidance for Implementing Principles

Lasting Benefits & Permanence

Within carbon markets there are different permanence criteria for different credit programmes and credit types (e.g. engineered vs nature-based). Within biodiversity markets (to the extent they exist) ranges also differ a brief

Project type/crediting programme	Market/credit type	Minimum Permanence Period (yrs)
Woodland Carbon Code	Voluntary, Nature-based Carbon	40-100
ICVCM CCP-eligibility	Carbon	40
Biodiversity Net Gain	UK Compliance Biodiversity	30 (via s106/conservation covenant);
Wilder Carbon	Nature-based carbon & biodiversity uplift	50; wherever possible, into perpetuity (99yrs+)

Given the noted challenges concerning the evidence base for carbon removal through nature-based activities, it is difficult to make the case for a longer permanence period than ICVCM's CCPs. Where buyers are using such credits in any calculations, this should be disclosed, together with buffers/insurance or other mitigation.

Sale of credits/units

As credits will typically be issued under an existing programme (e.g. Woodland Carbon Code), there are likely to be fewer checks required. Specify, for each sale: the crediting programme and methodology/version; validation and verification references; registry IDs/links for issuance, transfer and retirement; and any stacking/bundling status (explicit, implicit or bundled co-benefits). Confirm Oxfordshire (or boundary) project location with a mapped site boundary.

Some programmes limit or prohibit secondary sales to maintain the integrity of offsetting and to prevent double-counting, requiring permanent retirement once a credit is used. Where a registry logs unique unit IDs and single beneficial ownership, secondary trading can be permitted without compromising claims—much like listed shares recorded on a registry. A controlled secondary market can improve liquidity and price discovery (by origin, vintage or permanence), acknowledging that market price signals may at times fall below cost of provision (as in primary issuance).

Additional considerations where cancellation can occur:

Credits can lose value or be cancelled if the issuing project suffers a reversal. In bundled arrangements (e.g. explicit co-benefits such as biodiversity uplift), non-compliance on a co-benefit could, in some programmes, trigger cancellation even where sequestration has occurred. Define avoidable vs unavoidable reversals, set out remedies (buffers/pools, insurance, permanence funds), and make buyer notification and make-good provisions explicit in contracts.

Buyers:

Several crediting programmes specify requirements for buyers to ensure high integrity and minimise greenwashing.

- Public commitment to achieving Net Zero emissions alongside a robust, credible plan to achieve net zero emissions and reduce their own carbon footprint prior to removals to manage residual (unavoidable) residual emissions
- Commitment to avoid specifically excluded activities

Specifically excluded activities include both:

- Climate-related exclusions (fossil fuel extraction, thermal coal extraction, production of oil from tar sands. Global deforestation, breaches of national or international environmental law within the last 10 years, and deep-sea mining); and
- Ethical related exclusions (cluster bomb and landmine manufacturers, armaments and firearms, forced labour, child labour, bribery and corruption, support for oppressive regimes, support for terrorism, extremism, or extreme political parties)

Exclusions typically cover climate-related activities (e.g. fossil fuel extraction, thermal coal, tar sands, global deforestation, recent breaches of environmental law, deep-sea mining) and ethical exclusions (e.g. cluster munitions, armaments and firearms, forced/child labour, bribery and corruption, support for oppressive regimes, terrorism or extremist parties).

Certain sectors (pornography, gambling, tobacco/vapes, alcohol, animal testing) can be assessed case-by-case where strong safeguards exist. DESNZ's consultation is exploring "minimum buyer requirements for high-integrity credits used to back up environmental claims made by UK-headquartered buyers", noting that BSI's Flex 701 v2 no longer carries the earlier "ethical buyers and suppliers" principle.

We see value in a proportionate "buyer integrity" approach; the excluded activities affect only a small share of potential buyers and impose little cost for confirmation. We would not propose limiting buyers to UK-registered entities: provided there is transparency of ownership and use-case, international buyers or capital need not be treated as less ethical than UK entities. For high-profile cases (e.g. a fossil-fuel major funding local nature recovery), adopt a clear governance route: mitigation hierarchy in place, no "strings" attached, demonstrable emissions-reduction commitment, independent oversight and public reporting of benefits.

Ensuring accessibility for smaller market participants to enable an Oxfordshire-focused market to be accessible:

1. accommodate small companies without formal SBTi pathways by requiring proportionate "mitigation-first" evidence;
2. reduce entry costs (baselining/feasibility) that can make smaller sites prohibitive—note local evidence that ~20 ha may be needed for off-site BNG viability due to legal costs;
3. use simplified, risk-based MRV below defined thresholds and pooled verification where appropriate; and
4. give practical guidance on "appropriate engagement" for small/urban parcels where expectations may differ from rural sites. Draw on existing models that lower MRV costs and unlock participation (e.g. the Acorn Initiative, Plan Vivo-certified agroforestry) so a greater share of carbon income reaches smallholders.

Next Steps

This report has reviewed the literature and emerging frameworks that define “high-integrity” nature markets and distilled those elements that are most applicable in Oxfordshire, prioritising accessibility for participants while upholding robust safeguards. A number of issues remain to be resolved, and further work is needed to test and operationalise the draft principles. Because this approach is intended to influence rather than regulate, adoption will be voluntary—yet we have seen growing uptake of such principles where they are practical, transparent and clearly reduce risk.

1) Prove-out & Pilots

- Test the principles across a wider set of project types (woodland, peat/soils, riparian buffers, agroforestry, urban greening) and delivery models (single-site, cluster/aggregator).
- Buyer/seller clinics and workshops to pressure-test mitigation first, additionality, stacking declarations and MRV proportionality—building on Forum for the Future’s landholder engagement template and the business demand work by 3Keel.
- Integrate NatureMark for BNG as an assurance layer for off-site BNG projects, using the LNRS to evidence local alignment and community engagement (Trust for Oxfordshire’s Environment; Oxfordshire LNP).

2) Implementation Pathway & Governance

- Choose an operating model for market enablement: a “coalition of the willing”, a light-touch exchange function, or partnership with a third-party platform—calibrated to the level of control and resourcing available.
- Create a lightweight governance group (LNP, district/city councils, TOE, farmer-cluster reps, buyers) to steward updates, handle grievances, and maintain a public log of the principles.
- Plan for Local Government Reorganisation (LGR) by making boundaries and “Oxfordshire-based” tests portable to successor authorities.

3) Demand-side Integrity & Public Sector Use

- Identify buyer integrity expectations in plain language (mitigation hierarchy, transparent claims, alignment to VCMI and Oxford Offsetting Principles where relevant), noting BSI Flex 701v2 removed “ethical buyers & suppliers” and DESNZ is consulting on minimum buyer requirements.
- Build procurement levers: model clauses for council purchases and supplier frameworks (e.g., “removals prioritised; Oxfordshire projects preferred; additionality, permanence, MRV and transparency required”).
- Local authority offsetting playbook that maps to council plans and LNRS, with monitoring of residual emissions trajectories.

4) Data, Registries & Transparency

- Adopt “decision-grade” data standards for baselining and monitoring; publish key project documents (site boundary, baseline, intervention plan, management plan, issuance schedule) with regular updates.
- Registry alignment: require ICVCM-eligible programmes for carbon, disclose stacking/bundling status, and support interoperability efforts (e.g., CAD Trust).

- Secondary trading stance: define conditions under which re-trades are permitted (unique IDs, single beneficial owner, real-time retirement logs) to enable liquidity without double-counting.

5) Finance & Accessibility

- Lower entry costs via a revolving baseline/feasibility fund (TOE's approach), pooled verification for small projects and template packs (MoUs, credit sale agreements, stacking declarations).
- Aggregation pathways through farmer clusters to reach investable scale and share MRV.
- Blended finance options (public seed, private follow-on) for demonstration projects and permanence instruments (buffers, insurance).

6) Policy Alignment & Advocacy

- Track and reflect national developments—DESNZ/DEFRA's Voluntary Carbon & Nature Markets principles, stacking and additionality clarifications, and the BSI 700-series—updating the local principles as guidance matures (DEFRA, 2023; DESNZ, 2025; BSI, 2025).
- Clarify permanence expectations (ICVCM's 40-year minimum, potential movement to 100 years) and how local projects will manage reversal risk (buffers, insurance, covenants).
- Support registry resilience by advocating for FCA-style oversight of critical market infrastructure and robust client-asset protections.

7) Skills, Capacity & Support

- Address skills gaps in surveying, MRV, carbon accounting, ecology and project delivery through a local training offer with colleges/universities and delivery partners, reflecting House of Lords S&T Committee recommendations (2022).
- Create a trusted advisory roster (accredited advisers with conflict-of-interest rules) and a concise "how to participate" guide for landholders and SMEs.

8) Monitoring, Evaluation & Iteration

- Define KPIs: hectares restored, verified ex-post tCO_2e, permanence buffers, biodiversity indicators, % Oxfordshire-based units, pipeline by habitat, community benefits delivered.
- Annual review of the principles' "fitness for purpose", with a public report, consultation window, and versioning—so the framework keeps pace with evidence and standards.

9) Communications & Launch

- Publish the principles and pilot pipeline on a single page (maps and registry links), with a claims and disclosures checklist for buyers.
- Targeted outreach: farmer-cluster briefings, buyer roundtables, and a short comms toolkit (plain-English FAQs, example contracts, MRV primers).

10) Indicative Timeline

Timeframe	Actions
0–6 months	Pilots selected; clinics held; template pack and baselining fund scoped; governance group convened; public microsite live.
6–18 months	First issuances/retirements; secondary trading policy tested; evaluation published; principles v1.1 issued.
18+ months	Scale aggregation; expand financing instruments; align to any updated DESNZ/BSI/ICVCM guidance; prepare for LGR transitions

Definition of Terms

There has been significant discussion around the absence of a clear definition for a number of terms, summarised most recently in the DESNZ consultation.

For the purposes of these principles, we have generally followed the definitions/descriptions set out in the Oxford Principles:

Term	Definition
Beyond Value Chain Mitigation	"Mitigation action or investments that fall outside an organisation's value chain, meaning beyond their scope 1, 2 and 3 emissions."
Credit	"Tradeable certificates that represent the mitigation (reduction or removal) of a specified amount of greenhouse gas emissions."
Carbon Neutral	"a less rigorous, interim claim in which an organisation purchases credits (reductions or removals) to compensate for the total amount of remaining emissions, often ahead of the net zero target.13 This understanding of carbon neutrality demonstrates a departure from the definition of net zero, which is achieved through deep emissions reductions, with any residual GHG emissions attributable to that actor being fully compensated by removals with low risk of reversal."
Net Zero (GHG):	"When anthropogenic emissions of greenhouse gases to the atmosphere are balanced by anthropogenic removals over a specified period… To claim net zero, actors must reduce emissions as far as possible following science-based pathways, with any residual GHG emissions attributable to that actor being fully compensated by removals with low risk of reversal, exclusively claimed by that actor, either within their own value chain or through the purchase of high-integrity credits."
Net Zero Carbon	As above for Net Zero (GHG) but referring only to Carbon dioxide emissions.
Offset	"Emissions reduction or removal resulting from an action outside an organisation's boundaries used to counterbalance the organisation's residual emissions."
Residual Emissions	"Greenhouse gas emissions that remain after taking all possible actions to implement emissions reductions given current resources and technology."

Source: Oxford Principles (2024)

Additional terms are referenced below:

Term	Definition
Additionality	Outcomes go beyond what would have happened anyway. Legal: not required by law; Financial: not viable without credit income; Barrier: non-financial obstacles; Common-practice: not already typical in the sector/region.
Permanence	How long credited outcomes (e.g., CO_2 removals) are expected to endure, including reversal-risk management.
Reversal (avoidable / unavoidable)	Loss of credited outcome after issuance (e.g., fire, disease). Avoidable: due to negligence/ceasing obligations. Unavoidable: despite prudent management.

MRV (Monitoring, Reporting & Verification)	Evidence-based measurement, transparent reporting, and independent third-party verification on a set schedule.
Registry	Infrastructure that assigns unique serials to units and tracks their lifecycle; retirement permanently removes a unit from trade to back a claim.
Secondary trading	Re-sale of issued credits prior to retirement under rules that preserve uniqueness and prevent double counting.
Ex-ante / Ex-post credit	Ex-ante issued before delivery/verification (often restricted/discounted). Ex-post issued only after verified delivery.
PIU (Potential Issuance Unit)	Programme-specific ex-ante instrument representing expected future credits (e.g., under woodland schemes).
Stacking / Bundling	Stacking: separate units for different services on the same parcel. Bundling: multiple services packaged and sold as one product.
Co-benefits	Non-carbon outcomes delivered alongside the primary claim (e.g., biodiversity, water quality, social value).
Mitigation hierarchy	Reduce own impacts first; substitute where possible; compensate only residuals with high-integrity credits.
Place-based integrity	Preference for locally generated credits that demonstrably benefit local landscapes and communities.
ICVCM / CCP-Eligible / CCP-Approved	Quality framework where programmes meeting Core Carbon Principles are CCP-Eligible; credits can be CCP-Approved for quality signalling.
VCMI (Carbon Integrity Claims)	Buyer-side code defining pre-conditions and tiers for credible public claims, with assurance and disclosure.
SBTi / SBTN / TCFD / TNFD	Corporate target-setting and disclosure frameworks for climate (SBTi/TCFD) and nature (SBTN/TNFD).
LNRS	Local Nature Recovery Strategy - Statutory county strategy guiding where/how nature recovery should occur; used to target projects and align co-benefits.
BNG (Biodiversity Net Gain)	Mandatory biodiversity uplift for development (minimum 30 years), with strong locality and non-fungibility considerations.
Nutrient neutrality	Requirement that development does not increase nutrient loads in sensitive catchments; interacts with stacking/bundling.
Insetting	Interventions within or along a company's value chain delivering GHG reductions/removals and local co-benefits.

WVCM / BVCM	Within-value-chain vs. beyond-value-chain mitigation actions financed by an organisation.
BSI Flex 701 / Flex 703	UK nature-market guidance: overarching principles (701) and carbon-benefit specification (703) shaping data and assurance.
WCC / Peatland Code	UK crediting programmes for woodland and peatland; define methods for ex-ante and ex-post units.
EWCO (England Woodland Creation Offer)	Grant scheme supporting woodland creation; relevant to additionality and interaction with credit revenues.
Conservation covenant / s106	Legal instruments to secure long-term land-management obligations supporting permanence.
LGR (Local Government Reorganisation)	Structural changes to local authorities; frameworks should be portable across successor bodies.

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