Background & Purpose

Trees and forests can mitigate climate change through carbon sequestration. Woodland creation provides an attractive option for companies, organisations and individuals wishing to reduce their carbon footprint while also delivering a range of environmental and social benefits.

The Woodland Carbon Code aims to support a move to a low carbon economy through encouraging investment in the establishment of woodlands in the UK for climate change mitigation. It sets out robust requirements for voluntary carbon sequestration projects that incorporate core principles of good carbon management as part of modern sustainable forest management. Specific objectives of the Code include:

- ensuring high standards of sustainable forest management in line with the UK Forestry Standard and Climate Change Guidelines for forestry);
- setting out requirements of good practice in terms of both carbon (emissions reduction) and sustainable forest management;
- providing access to forest carbon measurement protocols that enable consistent and rigorous measurement of carbon uptake in woodlands and;
- establishing a system of independent quality assurance through the introduction of procedures for registering, validating and verifying woodland carbon projects.

Use of the Code

The Code sets out design and management requirements for voluntary UK based projects that aim to sequester carbon through woodland creation and to generate net emission reductions.

Woodland carbon projects contribute to just one of a hierarchy of actions that can help to combat the effects of climate change. However, before considering mitigation measures individuals, businesses and other organisations need to understand their carbon footprint; take steps to prevent avoidable emissions and reduce any remaining emissions.

Net emission reductions resulting from conformant projects will contribute directly to the UK's national targets for reducing emissions of greenhouse gases (GHG's). The Code does not provide a route to conformance with regulatory carbon 'offsetting' schemes (eg. the Carbon Reduction Scheme or EU Emissions Trading Scheme (EUETS)); or the generation of internationally tradable carbon credits linked to either the compliance or voluntary markets.

For woodland carbon programmes involving a number of separate projects and/or woodland ownerships, some elements of the Code will apply at an individual project level and others at a broader programme level.

The Code has been designed for use in the certification of UK woodland creation projects by independent certification bodies.

The structure of the Code

The Code sets out overarching principles and specific requirements that woodland carbon sequestration projects must incorporate in order to demonstrate best practice. Core principles and requirements for each key aspect of project design and management are addressed in turn, along with guidance on the means of verification.

Principle

The overarching principle behind the requirement is stated first to establish the overall context.

Requirement

These are the compulsory elements of the Code and are generally stated as 'shall'. Certification bodies will check and verify that each requirement is being met.

Means of verification

Illustrates the type of objective evidence - documents, actions or discussions – that the certification body should consider in order to verify that the requirements are being met. The suggested verifying evidence is generally stated as 'should'. The examples given are not exclusive or exhaustive - certification bodies will not always need to use all the verifiers suggested, and may seek verification in other ways.

The certification body should take into account the size of the project when assessing evidence.

Guidance

These notes help the project developer to understand how the requirements should be applied in practice.

Contents

UK Woodland Carbon Code

1. Eligibility

1.1 Project start date

Requirement Projects shall have a defined start date no earlier than 1st January 2005. **Means of verification** Project documents or other written evidence.	**Guidance** The project start date is the date of commencement of activities on site aimed at generating emissions reductions.

1.2 Eligible activities

Requirement Eligible activities shall be those relating to woodland creation. **Means of verification** • Project Design Document • Land use records • Reference to historical maps, images or other sources such as the Forestry Commission planting and felling database (GLADE) or evidence from relevant experts. • Local evidence and/or signed attestation.	**Guidance** Woodland creation is the direct, human-induced conversion to woodland of land that has not been under tree cover for at least 25 years.

1.3 Eligible land	
Requirement Legal ownership or tenure of the project area for the duration of the crediting period can be demonstrated along with the rights to any carbon credits generated. **Means of verification** • A signed declaration detailing nature and location of tenure documentation and landlords consent • Solicitor's letter • Title deeds • Land registry records • Certified copy of contractual agreements	**Guidance** Legal ownership may be demonstrated by signed attestation, title deeds, a solicitor's letter, or evidence of long-term unchallenged use. Contractual arrangements should clearly state the legal owner of both the land and carbon rights. See also section 4.7 relating to planning for permanence.

2. Compliance

2.1 Compliance with the law	
Requirement Projects shall comply with the law. **Means of Verification** • No evidence of non-compliance • A system or procedures for being aware of and implementing requirements of new legislation.	**Guidance** Certification is not a legal compliance audit. The certification body will be checking that there is no evidence of non-compliance with relevant legal requirements, including: • managers and employees understand and comply with all legal requirements relevant to their responsibilities; • all documentation, including procedures, work instructions and contracts, meet requirements; • no issues of legal non-compliance are raised by regulatory authorities or other interested parties.

3. Project governance and documentation

Principle

Projects need an effective and transparent governance structure with clear lines of accountability and clearly documented processes so as to enable cost-effective verification and to build confidence with stakeholders.

3.1 Project Design Document

Requirement	Guidance
The project shall have a **Project Design Document** (PDD) containing the following information: **A. Description** of the proposed project and original conditions (as described at section 4.2) in the project area, including: • the project title; • its long-term objectives; • its activities; • its location and project boundary, including geographical information and physical descriptions; • the organisations and individuals involved, including roles and responsibilities in the project and contact information; • an indication of whether there is an intention to use any other certification scheme or standard; and • an indication of whether the project site covers statutory designations (i.e. SSSI, SAC, SPA, LNR), and whether this places constraints on the project design or raises additionality issues. **B. Duration** of project activity and type of emissions reductions to be generated (ex-ante or ex-post) and time intervals.	**General description** The project area should be clearly defined using appropriate maps, identifying all relevant aspects of the woodland resource, including any special characteristics and/or sensitive areas. Description of the woodland resource should include all relevant aspects of physical, silvicultural, ecological, archaeological, social and landscape features and any other special characteristics, including adjacent areas that provide critical ecosystem services (e.g. hydrological services, erosion control) or habitats for any protected or threatened species. Existing types and condition of soils and vegetation should be described.

C. Methodology: application of an appropriate baseline and monitoring methodology (see section 4), including: • leakage assessment, with relevant mitigation strategy; and • evidence of additionality. **D. Estimation** of emissions reductions (tCO_2e) to be generated over the chosen crediting period. **E. Long-term management plan,** including: • an outline of the necessary inputs and resources including a full financial analysis.; • a summary of operational techniques; • a chronological plan for initiation of key project activities; and • identification of risks to the achievement and permanence of the carbon benefits, along with relevant risk mitigation strategies. **F. Monitoring plan** outlining how performance will be monitored, including: • a chronological plan showing when monitoring will be undertaken; • the performance indicators/targets that will be used; and • the identity of the certification body. **G. Environmental impacts** of the proposed project activity, as outlined in any ES or EIA process to which the project has been subjected. **H. Socio-economic impacts** of the proposed project activity, including a brief description of communities located around the project area, as outlined in any ES or EIA process to which the project has been subjected.	The level of detail required should be appropriate to: • the size of the area; • its environmental and social sensitivity; and • the likely impact of the activities. Where a project is subject to receipt of grant aid, existing woodland management plans and, where applicable, Environmental Impact Assessment documentation will, under many circumstances, provide most of the necessary documentary evidence.

I. Outcomes of stakeholder consultation (summary of comments and feedback given) and a mechanism for ongoing consultation, as outlined in any ES or EIA process to which the project has been subjected. **Means of verification** Comprehensive PDD with relevant appendices and referenced woodland management plans and other documents.	
3.2 Management capacity	
Requirement The project developer shall have the management capacity necessary to carry out the planned project activities during the project-crediting period. **Means of verification** • Project Design Document which clearly defines how roles in the project will be fulfilled; • Project team lists which identify key technical skills; • Evidence from previous project experience; • Existence of succession plans for changes in project personnel and/or owners	

3.3 Registry & avoidance of double counting

Requirement	Guidance
• Details of the project and the land to be planted shall be registered on the Forestry Commission's public register (The Woodland Carbon Project Registry). • Where unique carbon credit units are generated by a project for the purpose of sale they shall be registered with a carbon credit registry, or shall establish such a registry, through which any transfer, sale or retirement of carbon credits are tracked. • The carbon credit register shall be publicly available.	Details of the Woodland Carbon Project Registry are available on-line at: www.forestry.gov.uk A carbon credit registry for a project may be provided through a project website displaying emissions reductions generated and details of their sale, purchase or retirement.
Means of verification • Land registered with the Forestry Commission including detailed National Grid reference. • Inclusion of any traded carbon credit units in a publicly available emissions reduction register. • Contractual documentation covering the sale or purchase of certified emissions reductions.	The identity of any carbon credit registry must be provided to the Forestry Commission, who will make the information publicly available. For projects where no carbon credit registry is required this should be clearly stated.

4. Technical Requirements

Principle

Projects need to meet the following criteria by:

- generating **verifiable** emissions reductions (i.e. measurable by an external auditing body) against a baseline;
- being **additional** (i.e. only possible because of the availability of carbon finance);
- **minimising any leakage** caused by the project;
- having measures for assessing and **minimising the risk of impermanence**; and
- having measures to ensure emissions reductions are **not double-counted.**

4.1 Units of calculation and sale	
Requirement Carbon sequestration shall be calculated and traded in tonnes of carbon dioxide equivalent (tCO_2e). **Means of verification** Project documentation shows all calculations and estimates of GHG reductions in tCO_2e.	**Guidance** Tonnes of carbon dioxide *equivalent* (tCO_2e) shall be used to ensure transparency in measurements and recording.
4.2 Baseline projections ('Business-as-usual' scenario)	
Requirement The baseline shall include: • **a site description:** a description of the original condition of the project site including details of the vegetation cover and soil type. • **a deduction of lost carbon stocks:** where non-forested land (e.g. degraded land) is cleared in preparation for the project start date, the lost carbon stock shall be calculated and subtracted from the net carbon benefits claimed. • **a carbon baseline**: an estimate of changes in the carbon stock at the site from the start of the project in the absence of the project activities (ie. business as usual), using an appropriate methodology. **Means of verification** • Project Design Document • Appropriate maps • Evidence of relevant experts	**Guidance** A baseline projection is the reference point from which the impact of the project can be measured Further guidance on preparing a project baseline is given in Annex 1.

4.3 Project crediting period

Requirement	Guidance
Projects shall have a clearly defined crediting period and shall clearly identify whether ex-post or ex-ante emissions reductions are to be generated by the project activity. The crediting period for all projects shall not exceed 100 years. For ex-ante projects the minimum crediting period shall be 20yrs. **Means of verification** Project Design Document.	A project's crediting period is the time over which project activities are to be implemented, monitored and delivered (i.e. the project's life-span). NB: the crediting period should not be confused with the issue of permanence. All projects conforming to this Code are expected to involve a permanent land-use change to woodland cover. See section 4.7 relating to permanence.

4.4 Project additionality

Principle

Projects wishing to generate robust carbon savings need to demonstrate that they go beyond minimum legal requirements and that the net emissions reductions would not have been generated in the absence of the project.

Requirement	Guidance
Projects shall demonstrate additionality through the following tests: **1. Regulatory test** The project activities are not required under any law or regulatory framework. **2. Investment test** The project would not have gone ahead without the availability of carbon finance.	Further guidance on demonstrating project additionality is given in Annex 2. **Grant-aided woodland** Projects receiving grant aid under a government-funded initiative are not excluded from participation provided they can satisfy the investment test, i.e.

3. Barriers test (optional) Further evidence of the additionality of activities to be implemented by the project can be provided by identifying existing barriers to their implementation and explaining how the project will overcome those barriers (e.g. through the provision of financial support, technical support, etc). **Means of verification** Provision of evidence that the project satisfies both the legal and investment tests. Inclusion of an additionality analysis in the Project Design Document including: • a statement that the project or project activities are not required by law; • a full financial analysis of the funds required for project implementation and its long-term management.	the project in its entirety could not have gone ahead without the prospect of carbon finance. Under this Code, carbon savings generated by projects that receive grant aid cannot be traded in regulated carbon markets or be claimed as formal 'offsets'. This is to ensure clarity about additionality and to prevent the double-counting that would otherwise occur, because grant-aided woodland creation is already reported by the UK Government under Article 3.3 of the Kyoto Protocol.
4.5 Carbon accounting methodology	
Requirement **Accounting methodologies** Projects shall either: • use an approved Woodland Carbon Code methodology as the basis for calculations; or • propose an alternative project-specific methodology provided it has been peer reviewed by relevant experts and approved by the Forestry Commission.	**Guidance** Estimations of changes in carbon stocks should be made using methods of calculation, formulae and default values approved for use under this Code. There is a presumption that most projects will use an approved Woodland Carbon Code methodology as published by the Forestry Commission: 1. Woodland carbon default values. 2. Direct field measurement using inventory protocols

Carbon Pools included The following list shows the carbon pools that shall be included in estimations and those that shall be excluded. <u>Included:</u> • above-ground woody biomass; • below-ground woody biomass; and • any carbon pool which is expected to decrease significantly as a result of project activities. <u>Excluded:</u> • soil where the project has a minimal effect on soil carbon, unless project activities involve a potentially significant reduction in the soil carbon pool in which case the loss must be estimated and deducted; • above-ground non-woody biomass; • litter; • dead wood; • wood products. **Means of verification** Approved, peer-reviewed carbon accounting methodology.	Woodland Carbon Code measurement methodologies can be accessed at: www.forestry.gov.uk
4.6 Leakage	
Requirement Projects shall carry out an assessment to determine whether the project activities are likely to result in significant leakage and whether that leakage can be effectively and realistically measured and monitored. Where an assessment finds that significant leakage is likely to occur as a result of the project activity and can be effectively and realistically measured and	**Guidance** The possibility that the displacement of land use activities eg. agricultural, might result in deforestation or enhanced land use-based emissions elsewhere should be assessed.

monitored, it will be deducted from the calculation of net emissions reductions. **Means of verification** Project Design Document containing comprehensive leakage assessment with reference to relevant evidence. Mapping or field observation of current land uses and the likelihood of displacement of activities. Signed attestation that there is no intention by the owner/applicant to replace the previous land use or activity elsewhere	Assessing leakage requires: • a defined project boundary at the project design phase; and • identification of the current land uses in the project area, and a determination of whether and to what extent net GHG-emitting activities will be displaced as a result of the project activity.
4.7 Planning for Permanence	
Principle Projects need to create and sustain additional carbon sinks in newly established woodland.	
Requirement A project shall demonstrate a commitment to sustainability by planning for permanence with mechanisms that, as a minimum: • ensure re-stocking where projects involve harvesting; • identify risk factors, including pests, diseases, windthrow and fire, and develop mitigation strategies; • maintain a risk buffer of unclaimed carbon credits • restrict any carbon sequestration claims to a value no higher than the long-term average carbon sequestration value for the particular woodland type. **Means of verification** Means of verification shall include: • a comprehensive risk assessment in the Project	**Guidance** Risk management should be built in at every stage of project design. See Annex 3: for more detailed information about assessing and mitigating risk. The buffer level should be specified in project technical documents based on an assessment of risks associated with the activity/area in question. In the event of sale of the project area an agreement should be signed to obligate the new owners to maintain

Design Document; • practical experience of the project developer demonstrating sensitivity to risk factors; • field observations confirming that assessment of risk is reasonable; and • evidence of subtraction of carbon buffer and limitation of claims to the long-term carbon sequestration value.	the level of on-site carbon,
4.8 Monitoring	
Requirement The project shall have a monitoring plan in place before the project begins, to quantify and document the delivery of carbon savings. Regular monitoring of projects shall take place to demonstrate successful woodland establishment and that tree growth rates are consistent with anticipated carbon uptake as identified in the PDD. Corrective actions shall be undertaken if establishment and/or growth rates do not meet expectations. The monitoring plan shall include: • the measurements to be taken; • the frequency of monitoring; and • the sampling strategy to be used. Where programmes involve multiple small projects they may, for certain aspects agreed with the certification body, be subject to a sample-based verification scheme. **Means of verification** • Project Design Document, monitoring plans & reports. • Field observation.	**Guidance** Monitoring is the process of regularly collecting data and reporting on a project's performance. Monitoring of projects should be carried out at a minimum of 5 yearly intervals to ensure up-to-date estimates of project carbon stocks and provide assurance that net emissions reductions achieved by a project have not been reversed Where projects are subject to grant aid, audit and site visit reports by external parties e.g. Forestry Commission may contribute evidence in support of the monitoring plan. It is expected that under most circumstances projects will adopt the approved sampling strategies set out in the Carbon Assessment Protocol available at www: forestry.gov.uk

5. Environmental and Social Integrity

Principle

Projects need to be **environmentally and socially responsible,** taking into account the wider impacts on ecosystems and society to ensure that no harm is done by the project and, whenever possible, that wider benefits are created.

Requirement	Guidance
All tree species to be used by the project shall be identified and an assessment made of any likely effects they might have on the local environment, ecosystem and biodiversity. The project design shall incorporate the principles of sustainable forest management set out in the UK Forestry Standard. The project shall have due regard to the visual, cultural and ecological value and character of the wider landscape. **Means of verification** • Project Design Document • Forestry Commission-approved management plan • Environmental Impact Assessment (where required by legislation) • Certification to the UK Woodland Assurance Standard.	At the time of certification, all projects should be able to show that environmental (including biodiversity impacts) on the project area are likely to be positive. Where required, the content of an Environmental Statement and the requirements of the Environmental Impact Assessment process will usually cover all issues associated with environmental integrity.

6. Stakeholder Involvement

Principle

Meaningful stakeholder consultation and engagement is needed to secure the long-term viability of a project, and to allow for project design to be scrutinised by multiple diverse stakeholders with local knowledge and experience.

Requirement

The applicant shall provide an opportunity for, and take account of, inputs from stakeholders and feedback from local communities during both the project design phase and over the life-span of the project.

The details of all projects shall be listed on the Public Register published by the Forestry Commission including access to the PDD.

Means of verification

- Documentation which provides evidence of the approach taken to achieve meaningful stakeholder consultation, along with a summary of feedback and the actions taken.
- Inclusion of project details and PDD on the Forestry Commissions Public Register.

Guidance

Before starting a process of public involvement consideration should be given to:

- the ways in which each stakeholder or group of stakeholders might best be involved in the process;
- how this might change as their level of involvement develops; and
- the demand this might put on the project's resources.

Where an EIA has been required, the regulatory process should usually provide the appropriate documentary evidence for stakeholder consultation and engagement.

See the UK Forests for People Guidelines for more detailed guidance on effective stakeholder involvement.

Annex 1

Establishing a baseline for woodland carbon projects

The baseline projection is an estimate of what would have occurred on the site in the absence of the activities associated with the Woodland Carbon Project.

To establish a project baseline, estimates must be based on inventoried carbon stocks at the time of the Project's initiation and, where significant, the modelling of any changes in the baseline carbon stocks over the duration of the project. As a minimum this must include:

1. A site description

This will involve site survey and the estimation of carbon held in:

- Any pre-existing standing live and dead trees*
- Any pre-existing shrubs and other under story vegetation*
- The main soil types represented within the project area**

2. Deduction of lost carbon stocks

This will involve the estimation of carbon held in any live or dead trees, and any other vegetation cleared in preparation for the start of the project. Any carbon lost in this way must be estimated and deducted from the net carbon benefits claimed as a result of the project.

3. Modelling changes in baseline carbon stocks

This will involve estimating (modelling) any significant changes that would be expected to occur to the relevant carbon stocks on the site over time in the absence of the woodland carbon project (ie. under a 'business-as-usual' scenario). As a minimum this should include estimating changes to carbon held in pre-existing live and dead trees*, shrubs and other vegetation*, and soils**.

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* Pre-existing trees must be distinguished from planted trees and shrubs. Carbon values of standing trees may be estimated with reference to carbon default values or via direct measurement.

** Soil carbon is not anticipated to change significantly as a result of most woodland creation activities. However an assessment of soil carbon must be included where site preparation activities involve significant soil disturbance. Soil surveys must include assessment of the main soil types represented on the site and their relative proportions. *Note: A methodology for estimating soil carbon is currently under development.*

Annex 2

Demonstrating Project Additionality

1. The Woodland Carbon Code aims to accredit only those projects that remove additional amounts of carbon dioxide removals from the atmosphere compared to what would have happened in the absence of a forest carbon market.

2. This section explains how additionality is assessed under the Woodland Carbon Code.

Approach to assessing additionality

3. Levels of woodland creation across the UK are generally low at present. It is expected that the value of woodlands as a mechanism for carbon abatement will encourage woodland creation projects that otherwise would not have taken place. However, this assumption cannot be made for all projects so an assessment for additionality is required. This assessment needs to provide the necessary assurance without imposing unnecessary burdens on businesses that would deter investment.

4. The Woodland Carbon Code applies a project-based approach to assessing additionality, based on a consistent set of criteria to evaluate performance and other conditions that rule out "business-as-usual" projects. A project-based approach is generally regarded as being likely to avoid accreditation of projects that offer little additionality although, like any approach, it is subject to information asymmetries (between developers and accreditors) and relies on some subjective judgements about project developers' motivations.

5. To ensure consistency and reduce subjectivity, a standardised evaluation procedure is applied, as set out below. This provides a transparent framework for developers and accreditors to assess additionality.

Steps in assessing additionality

7. The following tests should be followed in assessing additionality. These tests are not expected to be onerous. It is expected that project developers would carry out such analysis in any case when formulating projects. Project accreditors should ensure that suitably qualified experts provide assurance that additionality requirements have been met.

i. Legal test

This test is intended to exclude all projects that are required by law, whether under legislation set by the EU, UK, devolved administrations or local government. A project passes the legal test when there are no laws, statutes, regulations, court orders, environmental management agreements, planning decisions or other legally binding agreements that require its implementation, or the implementation of similar measures that would achieve equivalent levels of GHG reductions.

Project developers must submit a signed attestation that the project is not required by law.

ii. Investment test

The main purpose of the investment test is to assess the role of carbon finance on the financial viability of a woodland creation project. Non-financial factors and the role of grant-aid also need to be assessed where these are present. Three steps will usually be required.

First, all costs and revenues for the lifetime of a project should be evaluated in order to assess the effects of carbon finance. .

Costs include:

- woodland planting, establishment and management costs.
- land acquisition (if required) (purchase, lease, rent)
- income foregone (opportunity costs)

Revenues may come from various sources including payments relating to:

- carbon sequestration
- timber
- woodfuel
- non-timber products and services
- Government grants and subsidies

The assessment of additionality will ascertain the influence of different costs and revenues on relevant metrics such as rates of return, net present values as well as project sponsor motivation where non-market benefits are the primary motivation.

Second, the assessment will usually need to take account of other less quantifiable factors that affect business decisions. These may include business motivations, including objectives based on providing public benefits. In more difficult cases, supporting evidence (for example, from a bank) may be needed if judgements are to be made about business decisions.

Third, an additionality test should be applied to any grant-aid that is received. Currently the viability of many woodland creation projects is partly under-pinned by grant-aid and it is anticipated that project sponsors will continue to apply for grant-aid, even when carbon finance is relevant. A range of grant payments is available across England, Scotland, Wales and Northern Ireland to support woodland creation. These are intended to enable woodland developers to overcome upfront costs and long timescales required before revenues are received. They also support non-market outputs of woodlands by ensuring that woodland owners and managers receive payment for providing such goods and services. However grant payments in the UK do not cover total project costs and there is therefore scope for carbon finance to make the difference and genuinely deliver additional projects by helping to further underpin financial viability.

The investment test for additionality should show that grant payments without carbon finance were insufficient for a project to be financially viable. Therefore, carbon finance must cover a minimum proportion of a project's planting, establishment and forest management costs only (land acquisition costs are excluded from this part of the assessment). Given the early stage of market development and current low carbon prices, this proportion will initially be set at 15% and will rise to in the region of 30% as carbon prices rise in the future and the forest carbon market matures.

iii. Barrier test (optional)

A variety of barriers could prevent a woodland creation project from taking place. These could be economic, or social or environmental. The additionality of a project be shown by demonstrating how such barriers would be overcome (e.g. through technical support, re-design of financing etc), thereby distinguishing the project from a business-as-usual approach.

Annex 3

Project Risk Management

a) Demonstrating Commitment to Permanence

All projects will be required to provide satisfactory assurances of the permanence of their emissions reductions. This can be achieved by providing:

- evidence of compliance with the provisions of the UK Forestry Act and UK Forestry Standard;
- an agreed project risk management plan;
- a formal commitment to the long-term maintenance of sequestered carbon; and
- temporary emissions reduction crediting.

b) Risk Management and Project Failure

Risks should be assessed at the project design phase, and potential mitigation strategies identified. A breakdown of different categories of risk factor and potential mitigation strategies is set out in the table below.

Risk Factor	Potential Mitigation Strategy
Legal/Social	
Disputes caused by conflict of project aims and activities with local communities and organisations	Participatory planning and continued stakeholder consultation over project life-span. The regulatory framework in the UK (EIA regs) is likely to limit this risk.
Disputes caused by conflicting land-use interests or compliance requirements	Ensure early analysis of compliance requirements and stakeholder analysis. The regulatory framework in the UK (EIA regs) is likely to limit this risk.
Project Management	

Management of activities not carried out effectively	Project managers and staff adequately trained
Double-counting due to poor or bad-faith record keeping	Transparent record-keeping procedures written in project design document, and quality mapping of project activities and area; up-to-date database maintained with records of all carbon monitored and sold. The public register operated by the Forestry Commission will limit this risk.
Project not practically viable in long term due to lack of resources/skills/expertise	Careful selection of project staff and training
Finance	
Rising land-opportunity costs endangering project viability	Development of business plans (reviewed periodically) for economically viable management. UK legislation limits the risk of land-opportunity costs reversing the land-use change.
Financial failure	
Natural Disturbance	
Fire	Fire management plans. Follow requirements of UKFS and supporting guidelines.
Pests and diseases	Assessment, careful selection and diversity of tree species. Follow requirements of UKFS and supporting guidelines.
Direct effects of climate change	Awareness of current climate projections and their likely impacts. Implement best practice guidance as outlined in the UKFS and supporting Guidelines.
Extreme climatic events	Site selection criteria; take account of wind-throw hazard class and soil types/exposure.

	Follow requirements of UKFS and supporting guidelines.

An adequate carbon pool reserve or 'buffer' should be in place to allow for:

- project size, length and commitment period;
- damaging events, eg. pests & disease, fire and wind;
- ownership type and management experience;
- technical capability;
- financial planning and opportunity costs; and
- level of political (e.g. government, local authority) endorsement.

The verification process will require an assessment of project specific risk for each of the main risk categories. This will allow a determination of the required size of the overall risk buffer. The following reserved minimum buffer levels are considered appropriate when net emissions reductions are claimed.

Risk Category	**Contribution to overall risk rating**	
	Higher Risk Projects	**Lower Risk Projects**
Legal/Social	2%	1%
Project Management	3%	1%
Finance	5%	2%
Natural Disturbance: Fire	4%	2%
Natural Disturbance: Wind	6%	3%
Natural Disturbance: Pest & Disease	5%	3%
Natural Disturbance: Direct Climate Change Effects	5%	3%
Overall Risk Buffer **% of total CO_{2eq}**	**30% (Max)**	**15% (Min)**

Glossary

Additionality – A project is 'additional' if it, and the activities supported by it, could not have happened without externally sourced carbon finance.

Afforestation – The direct, human-induced conversion to woodland of land that has not previously been forested according to historical records. The Code sets a threshold of a continuous absence of woodland over the previous 25 years.

AFOLU - Agriculture, forestry or land use projects that aim to reduce GHG emissions from land use practices (also referred to as LULUCF projects - Land Use, Land-Use Change, and Forestry)

Barrier - Any obstacle to reaching a goal that can be overcome by a project or measure.

Baseline – The starting reference point from which the carbon benefits of project activities can be measured or calculated. A dynamic baseline may be required if the previous land use has not achieved a steady state in terms of carbon dynamics.

Biodiversity - The variety of ecosystems and living organisms (species), including variability and genetic variation within species, and the ecological complexes within and between ecosystems.

Buffer – A carbon pool of sufficient size to cover both uncertainty in carbon measurement and potential losses which may occur from the project over time, thus ensuring the permanence of emissions reductions.

Carbon pool - A system that can store and/or accumulate carbon, e.g. above-ground biomass, leaf/needle litter, dead wood and soil organic carbon.

Carbon sequestration - Direct removal of carbon dioxide from the atmosphere through land-use change, afforestation, reforestation and/or increases in soil carbon.

Carbon offsetting – Calculating emissions and then purchasing 'credits' from emission-reduction projects that have prevented or removed the emission of an equivalent amount of carbon dioxide elsewhere.

Carbon sink – A carbon pool that is expanding, e.g. a growing forest.

CDM (Clean Development Mechanism) – One of the flexible mechanisms created by the Kyoto Protocol.

Certification – Assessment and registration of a project against the criteria of the Code.

Climate change - Change or changes in the climate which can be directly or indirectly attributed to human activity (UNFCCC Article 1).

CO_2 - (Carbon dioxide) A naturally occurring gas and by-product of burning fossil fuels or biomass, land-use changes and industrial processes. It is the principal anthropogenic (caused by human activity) greenhouse gas that affects the Earth's climate.

Crediting Period – the duration over which a project generates emissions reductions or carbon credits.

Deforestation - Permanent or long-term removal of woodland; the direct, human-induced conversion of forested land to another land use, or the long-term reduction of the tree canopy cover below the minimum 20% threshold.

Double-counting – Double-counting occurs when the same carbon credit is claimed by two separate entities in respect of the same emissions, or when the same credit is sold more than once in respect of the same unit of carbon reduction or sequestration.

Ecosystem - A community of plants and animals (including humans) interacting with one another and their environment.

EIA – Environmental Impact Assessment Regulations apply to forestry related projects. If the Forestry Commission considers that project proposals may have a significant effect on the environment then the proposer must obtain FC consent for the work and submit an Environmental Statement as part of the application for consent.

Ex-ante Emissions Reduction Project – An emissions reduction project under which future carbon credits are claimed at the outset of the project.

Ex-post Emissions Reduction Project - An emissions reduction project under which carbon credits are only claimed once the carbon can be shown to have been sequestered.

Forest – See 'woodland'

FSC - Forest Stewardship Council.

GHG's - Greenhouse gases. The gases which are causing the warming of the Earth's atmosphere that is leading to climate change. Six gases are defined in the Kyoto Protocol as contributing to climate change: carbon dioxide, hydrofluorocarbons, methane, nitrous oxide, perfluorocarbons and sulphur-hexafluoride. These contribute to the 'greenhouse effect'.

IACS – Integrated Administration and Control System is the system of control used to administer EU grants. All landowners that receive support under the Common Agricultural Policy need to be IACS registered. IACS comprises of a Business Reference Number (BRN) which refers to the applicant and a Field Identification System (FIS) which refers to the land.

IPCC – The Intergovernmental Panel on Climate Change is a scientific intergovernmental body tasked with evaluating the risk of climate change caused by human activity.

ISO - International Standards Organisation.

Kyoto - the Kyoto Protocol is an international legal agreement under the UNFCCC.

Leakage - The unintended change of carbon stocks outside the boundaries of a project, but resulting directly from the project activity (usually thought of as being negative, although positive leakage can occur). The change might be an increase in emissions or a decrease in sequestration, resulting in a lower carbon benefit being attributable to the project.

Mitigation - Implementing activities or policies to reduce greenhouse gas emissions and/or enhance carbon sinks.

Native species - A species that has arrived and inhabited an area naturally, without deliberate assistance by humans, or which would occur at the location had it not been removed through human intervention in the past.

Naturalised species - A non-native species that reproduces consistently and sustains populations over more than one life cycle without direct intervention by humans.

Project – individual woodland creation scheme on a single site under the same ownership and management.

Programme – a series of emissions reduction projects managed as a group through the implementation of standardised procedures.

REDD – Reduction of emissions from degradation and deforestation.

Reforestation – Direct, human-induced establishment of forest on non-forested land that had been forested at some time in the past.

Registry - The official record of the number of carbon credits that have been sold, and of the projects (or schemes) that sold them.

UNFCCC - United Nations Framework Convention on Climate Change. An international framework convention on climate change policy.

Validation - The initial evaluation of a project against published standards (in this case, the Code of Good Practice), undertaken before registration by an expert reviewer.

Verification - The evaluation of the delivery of emissions reductions or carbon credits by a project.

VCM – Voluntary Carbon Market

VER's - Voluntary Emissions Reductions. Carbon credits created in the voluntary market; they cannot be used towards meeting the UK's commitments under the Kyoto.

Woodland - Land under stands of trees with a canopy cover of at least 20% (25% in Northern Ireland), or having the potential to achieve this. This definition includes integral

open space and felled areas that are awaiting restocking (replanting). (This definition is also applicable to 'forest').