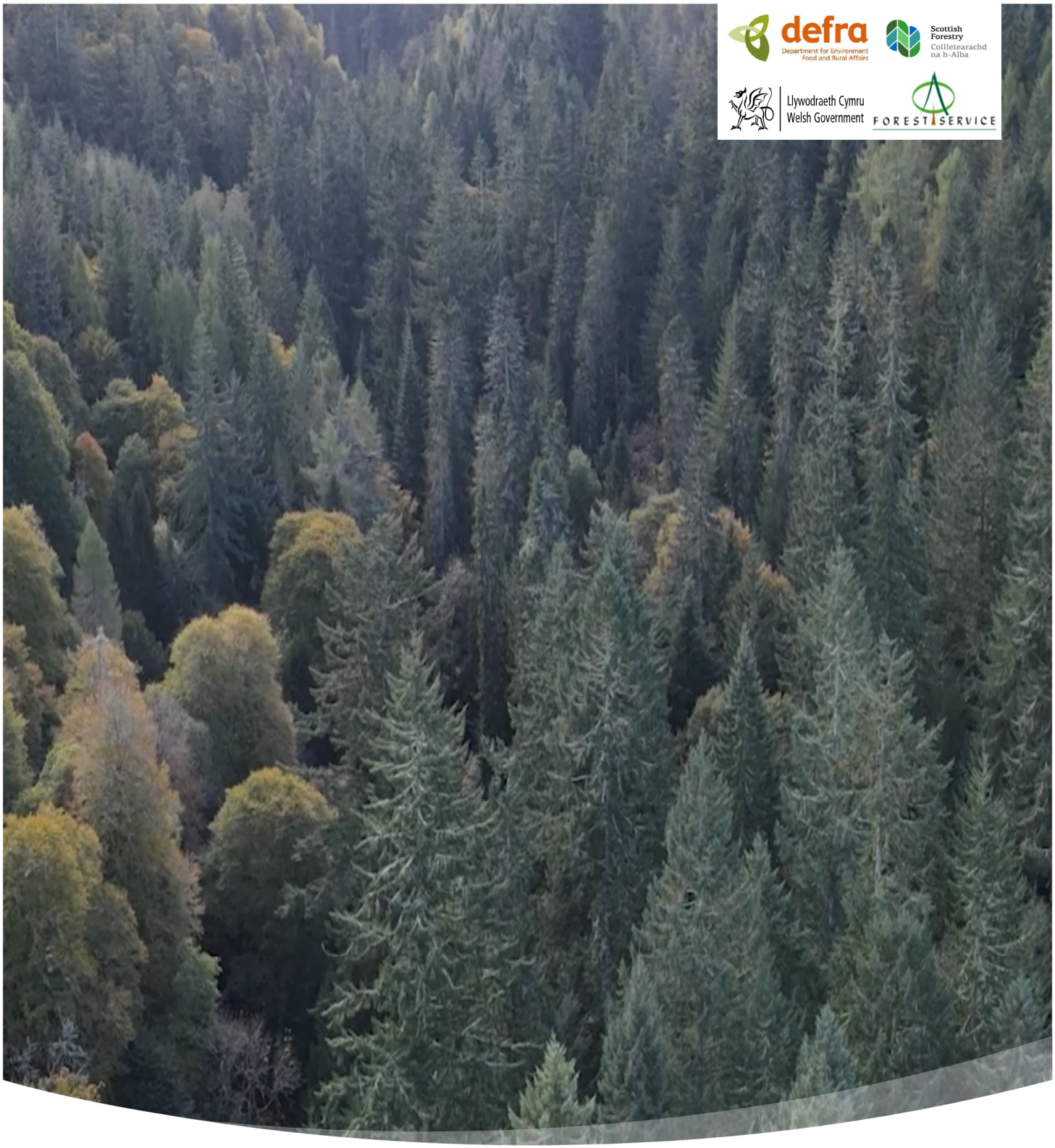

WOODLAND CARBON CODE ADDITIONALITY TEST

CONSULTATION PAPER

OCTOBER 2024

Contents

Foreword

Ensuring that woodland carbon projects are additional – that they would not have gone ahead in the absence of carbon revenues – is key to maintaining the integrity of the Woodland Carbon Code (WCC) and the value of Woodland Carbon Units. It is important that the WCC additionality test continues to operate effectively across the wide range of woodland creation projects that operate under the standard.

Additionality is one of the essential building blocks of the WCC. Others include sound science on woodland growth and associated GHG impacts, independent validation and verification, assurance of permanence of carbon credits and transparency through a carbon registry. The wider benefits of the WCC for nature, the economy and local communities are also integral to the standard. This consultation recognises the challenges associated with testing additionality and also acknowledges certain situations where it could work more effectively.

The woodland carbon market in the UK comprises a large number of projects – more than 2,000 projects have been registered at the time of writing – many of which are comparatively small in scale by global standards. This reflects a more intricate pattern of land-use in many parts of the UK in which small areas of woodland can be integrated with other activities.

The design of the WCC needs to be appropriate to this pattern of land-use by being able to handle large numbers of small projects in a way that is both cost-effective and robust. This underpins the current approach to the additionality test in which standardisation of some of the parameters in the test reduces times and costs for projects, validators and other stakeholders involved in the WCC. Simultaneously, adequate flexibility is needed so that the test can handle the diverse range of WCC projects effectively.

Two years after the current approach to the additionality test was introduced, it is timely to consult on how the test is working and whether any further changes would enhance its effectiveness and integrity. Scottish Forestry has engaged the services of EY to support the delivery of this consultation. The consultation is intended to obtain insights from stakeholders on the assumptions underpinning the additionality test to ensure it remains functional for the modern carbon market landscape, whilst maintaining the principles of fairness, transparency and robustness required by the Integrity Council for the Voluntary Carbon Market (ICVCM).

Following this consultation, results will be published and the WCC will use the evidence and insights provided to inform the future operation of the test. The outcomes will be communicated in 2025. Updates or amendments to the financial additionality test only apply to projects that register after the date that changes are made.

The Woodland Carbon Code Team

How to respond

We are asking for comments on this Consultation Paper by Friday 29th November 2024.

The questions for consultation are set out with context throughout "Chapter 2: WCC additionality test consultation". They are also listed in full under "Appendix A – List of questions to be addressed".

Following this consultation, responses will be reviewed, and a summary of responses will be made available by the end of 2024. The outcomes of the consultation will be considered by the WCC Advisory Board.

While we provide the questions within the paper for your reference, we request that you submit your responses via the online questionnaire here.

If you have any questions or are facing any issues with accessing the questionnaire, please contact us at: WCCadditionality@uk.ey.com.

If you are aware of another organisation that would be interested in responding to this consultation, then please reach out via the contact details below. Please do not forward this consultation without reaching out to us in the first instance, as this is a targeted consultation.

Chapter 1: Background and context

Overview of the Woodland Carbon Code

The Woodland Carbon Code ("WCC", or "the Code") is the quality assurance standard for voluntary woodland creation carbon projects in the UK. The Code is administered by Scottish Forestry on behalf of the Forestry Commission, the Welsh Government and the Northern Ireland Forest Service. Carbon sequestration resulting from WCC-validated projects contributes to the UK's national targets for reducing emissions of greenhouse gases ("GHGs") and can be used by companies to compensate for their UK-based emissions.

The Code is internationally recognised for high standards of sustainable forest and carbon management. It is endorsed by the UK Government and the International Carbon Reduction and Offset Alliance ("ICROA"), the umbrella body for service providers in the Voluntary Carbon Markets ("VCM").

The importance of additionality testing

Additionality is a requirement for all VCM organisations and standards. The Integrity Council for the Voluntary Carbon Market ("ICVCM"), one of the primary standard-setting bodies for the global VCM, defines additionality as 'GHG emission reductions or removals that would not have otherwise occurred in the absence of the incentive created by carbon credit revenues.'[1]

Additionality testing is key to ensuring that the credits generated by a woodland creation project represent a genuine net decrease in GHG emissions that would not have otherwise occurred. This is instrumental in preserving the environmental integrity of carbon markets and fostering confidence among VCM stakeholders, including investors and consumers. In turn, bolstered perceived reliability, quality, and stakeholder confidence will likely further stimulate demand for carbon credits, thus encouraging the capital flows required to meet national environmental targets.

The WCC additionality test provides a benchmark to assess, first, whether proposed projects are legally required (the "legal test") and second, whether they require carbon revenues to be a commercially viable initiative (the "financial test"). The financial test uses a standardised test that is applied in the same way for all types of woodland creation projects. It is designed to be consistent with the Core Carbon Principles ("CCPs") of the ICVCM and to provide a transparent and verifiable process for proving additionality in a way that is relatively easy and cost-effective to implement.

Carbon credits are an example of a 'credence good', i.e. their quality cannot be judged directly but have to be taken on trust[2]. Additionality testing is widely acknowledged to be vital to the integrity of carbon markets but challenging to implement. This is due to a carbon credit representing an additional tonne of carbon dioxide removed from (or not released into) the atmosphere beyond what would have happened in the absence of the credit being

[1] Integrity Council for the Voluntary Carbon Market, (2024). Assessment Framework section 4. Available at: CCP-Section-4-V1.1-FINAL-15May24.pdf (icvcm.org). p.73.
[2] Moxey, A. (2021). Evaluation of Woodland Carbon Code Additionality Rules

traded. However, this counterfactual is unobservable. For example, if a land manager develops a new woodland sequestration project, it is not known if they do so because of the ability to sell carbon credits (rendering the project and its carbon savings additional) or whether they would have developed the woodland regardless (rendering the project not additional). Therefore, carbon standards such as the WCC are required to design tests to assess what would or would not have happened in the absence of the carbon market.

Scope of this consultation

This consultation focusses on the WCC's financial additionality test and reviews the design and assumptions that underpin the test.

The financial test is a technical mechanism to assess financial additionality by calculating whether carbon revenues are needed for a project to be financially viable, rather than financially attractive.

The standardised approach to the financial test is intended to provide a consistent and auditable way for testing additionality. It focusses on the typical costs and revenues associated with woodland creation, using a range of data sources to provide standardised values for most items. In this sense, it is similar to the "simple cost analysis" used in the Clean Development Mechanism ("CDM") and is arguably well-suited to the UK woodland carbon market, which is typified by large numbers of small schemes. Consistency and cost-effectiveness are particularly important in this context and should be considered when providing responses.

Another approach, also deployed by the CDM, involves a more detailed, bespoke test for typically larger schemes where the financial arrangements are more complex, such as those with multiple revenue streams. This approach provides a full financial analysis and compares investment returns to other potential alternatives, which are referred to as benchmarks. The design of such a test is not the main focus of this consultation, although the appetite for bespoke testing and any related key challenges and considerations can be raised as additional comments.

The consultation focusses on four issues highlighted through a review of the test in 2023, namely the level of risk associated with woodland creation (i.e. discount rates), the opportunity cost of woodland creation (i.e. income forgone), the timber revenues generated by woodland creation, and project costs incurred. Whilst there are multiple additional assumptions and inputs relevant to the test, it has been determined that these four issues are particularly important. There is also scope to raise general reflections and any additional comments beyond these four issues.

The responses to this consultation will inform the future structure, methodology and data needs for the test. Responses should consider how the robustness and integrity of the test is best maintained. For more information on how the consultation results will be used to inform our assessment, please see section "How to respond".

Objectives and target audience

Through this consultation, we aim to:

1. gain market feedback on the current operation of the additionality test; and
2. seek information, perspectives and evidence that can inform the future operation of the test.

Experience from applying the test has grown substantially in recent years. The consultation seeks responses that can help the test to be workable and pragmatic while underpinning integrity and trust in the woodland carbon market.

Standardisation in the test provides benefits in terms of consistency, transparency and auditability. The cashflow allows for project owners to input project-specific characteristics to generate a project-level assessment of costs and revenues. The per unit values are based on standardised data from a variety of published sources. Some flexibilities in certain values may be possible in future where these can be shown to enhance the test.

While the consultation proposes specific questions in response to issues raised by stakeholders previously, we welcome broader feedback on the test and are interested in innovative and workable approaches that can enhance the test in future.

This consultation aims to secure input from a wide range of participants, experts and observers in the UK and wider VCM. Invitations have been issued to stakeholders who are either actively engaged with the WCC, or who may have an interest in the future operation of VCMs. These include:

- project developers;
- retail aggregators;
- institutional investors and asset managers;
- traders and end-user buyers;
- government entities;
- validation and verification bodies;
- standard-setting bodies;
- academic institutions;
- NGOs; and
- ratings agencies and other market observers.

Chapter 2: WCC additionality test consultation

The WCC currently uses two tests to assess whether a project complies with additionality: the financial additionality test and the legal additionality test. This consultation focusses on the financial additionality test.

The WCC utilises a cashflow model to determine if a project meets the additionality criteria set by the Code. All applicants must undertake the same test, wherein many of the inputs and cashflows are standardised for simplicity, transparency and consistency. To be considered additional, project developers must demonstrate that the financial returns (measured as net present value ("NPV")) of their woodland creation projects without carbon revenue are either less than that of the alternative land use, typically farming, or outright negative.

While a variety of inputs into the cashflow model are required from each project, this consultation focusses on four key aspects of the cashflow model:

- the scope of and approach to project costs;
- the methodology of modelling timber values within the revenue streams of the project;
- the discount rate applied to projects' future cashflows; and
- the income forgone by pursuing a woodland creation project instead of an alternative use of the land.

We consider each of these aspects in turn but recognise that they are interrelated whereby the treatment of one assumption may impact how another must be considered.

The consultation begins with overarching questions about the additionality test, as we would welcome general reflections and views about the operation of the test in the future.

Questions:

1. Please comment on the effectiveness of the Woodland Carbon Code's current approach to assessing additionality.
2. Please identify any advantages and disadvantages that you see with the current tests (i.e. the legal test and the financial test).
3. Please provide any proposals for how the financial test can best operate in the future, including any innovations in how data can be collected and verified at a project level.

Project costs

Context

The WCC additionality test applies a set of values for project costs incurred in establishing and managing woodlands. Some costs are incurred upfront while others are sustained throughout the project's duration. Project costs impact additionality calculations by offsetting some of the positive cashflows of the woodland creation project, thus reducing the NPV.

A variety of data sources[3] are used to determine the values for project costs, but it is noted that there can be difficulty in precisely determining standardised values, for example due to data limitations. This can be particularly true for long-term costs such as insurance.

Management costs are currently averaged across the UK, and the majority of costs are standardised at a fixed rate; the model accounts for the economies of scale associated with larger projects for a limited number of costs (see "Appendix F – Costs included in the current additionality test").

All costs are subject to change over time, due to inflation or other factors. Periodic updates to cost data are therefore required, although previous feedback from the market has emphasised the importance of stability and certainty of the test for the planning of future projects.

Consultation questions

The current approach to estimating project costs has delivered greater consistency, efficiency and auditability. Nevertheless, views are welcomed on whether this approach may be improved further. Future options could be to:

- Maintain the list of costs as they currently stand, including the methodology and approach by which they have been assigned, as well as updating costs regularly to ensure accuracy;
- Expand the number of project costs that are scaled for project size and improve the methodology for scaling to include a wider number of project sizes; and
- Add any further costs that may be material to the financial viability of woodland creation.

Questions:

4. How should costs for a woodland creation project be treated:
    a. Maintain the current list and values of costs, including updating costs regularly
    b. Allocate more projects costs into distinct categories to reflect the size of the project (e.g. small, medium, large)
    c. Expand the list of currently considered costs

[3] Please see the "Cost Data" tab of the WCC cashflow model; a link to the model can be found under "Appendix E – Current WCC cashflow model".

d. Other

5. Please provide your rationale to your answer for Q1.
6. Please describe your views of the values being applied to current costs. If applicable, please suggest alternative data sources to derive values where appropriate. Please also provide a rationale for any proposals.
7. Please comment on the most appropriate frequency for updating project costs.
8. Please provide any additional comments you may have on project costs.

Please refer to 'Appendix F – Costs included in the current additionality test' to view the full list of costs that are currently considered in the additionality test. Please also include your rationale and, where known, any publicly available data sources that may be used to substantiate these costs.

Timber revenue

Context

Revenues from timber thinning and felling are included as cashflow inputs according to a specified range of forest management regimes, i.e. the way in which a project is described as being managed within the Project Design Document ("PDD"). These regimes include, but are not limited to, thinning, clear-felling, coppicing and continuous cover forestry. The regimes detail the species used, their productivity (measured by yield class) and the forms of intervention for managing the woodlands. Revenue inputs are the product of assumptions relating to the volume and timing of the level of timber produced and the price that the timber will fetch. Further details can be found under "Appendix E – Current WCC cashflow model".

Price data for coniferous timber is sourced from Forest Research, who provide Timber Price Indices based on sales by Forestry England, Forestry and Land Scotland, and Natural Resources Wales. Meanwhile, data for broadleaf timber is sourced from Grown in Britain. These sources have been selected as they are widely used in the forestry industry as a reference for timber prices.

The conifer and broadleaf prices that are used in the model are currently from 2021 and 2018 respectively. These prices are used for all future felling activity, therefore the model does not consider expected future price increases for timber, and whether these may differ from economy-wide rates of inflation. This is due to constraints in data availability and uncertainties over the assumptions to be applied.

The WCC cashflow model applies the methodology set out in Forest Research's "*Forest Yield: A handbook on forest growth and yield tables for British forestry*"[4] to predict the level of timber that will be harvested throughout the lifetime of the project, across several planted species options.

Forest Yield originates from research conducted by the UK Government, specifically the Forestry Commission and Forest Research. It is based on decades of forest growth and yield research; the yield tables and models are continuously refined. The software supports forest managers in the UK by incorporating data from a wide range of British forestry species, including yield models for predicting growth patterns under various management scenarios .

Consultation questions

Views are welcomed on the current approach to modelling timber values. These may pertain to the:

- Quality of price data;
- Approach to estimating timber volumes, including management options applied; and
- Assumptions relating to the timing of any management and clear-fell activity.

[4] Forest Research, 2010. *Forest Yield: A Handbook on Forest Growth and Yield Tables for British Forestry*. Edinburgh: Forestry Commission.

Questions:

1. Are you comfortable with the data currently used to model timber spot prices and how the data is applied? Where relevant, please suggest alternative data sources and explain its benefits over the data sources currently used.
2. Do the current woodland categories provide an adequate representation of WCC projects in practice? If not, please explain how they should be changed and your rationale.
3. Are the assumptions on yield classes and timings for timber returns for each category reasonable? If not, please explain how they should be changed and your rationale.
4. Please provide any additional comments you may have on the current approach to estimating timber output and revenues.

Modelling risk associated with woodland creation

Context

The calculation of a project's NPV requires a discount rate to be applied to all future cashflows associated with the project to bring the value of those cashflows to the present date. Discount rates in the private sector are typically applied to account for the specific investment risks associated with the project.

The WCC additionality test currently applies a discount rate of 3.5% declining over time , which over the course of a 100-year project averages to 3%. This rate is derived from His Majesty's Treasury's ("the Treasury") Green Book and is based on the Social Time Preference Rate[5] ("STPR"). This rate aligns with how future cashflows are generally treated across environment-related programmes delivered by the UK public sector. The STPR is ultimately designed to reconcile the delayed environmental benefits of woodland creation and the upfront investments costs required to establish such a project. Consideration is to be given to whether the STPR accurately reflects the risk profile of modern woodland carbon projects.

Views on the discount rate should not be made in isolation from the broader business context in which the WCC operates. For example, risk mitigations are built into other aspects of the WCC, including through the allocation of 20% of carbon credits to a pooled buffer. The buffer protects against potential losses of verified credits that may arise during a project. There are also other financial characteristics of woodland creation projects that mitigate risks. Examples include availability of grant income from government, as well as financial benefits that are not captured in the cashflow model, notably favourable tax arrangements for forestry and opportunities for diversified income streams.

Consultation questions

Options for modelling discount rates include:

- Continued use of the Treasury's 3.5% declining rate;
- Use of a rate comprising multiple components, each reflecting a distinct risk, i.e. a risk-free rate plus suitable risk premiums or reductions to reflect the project risk profile; and
- Use of a suitable benchmark or index that acts as a proxy for the risk-return profile of equivalent investments to woodland creation.

Any amendments to the calculation of the discount rate would have to be underpinned by a robust, publicly available and regularly updated data source.

[5] Freeman, M., 2020. *Social Discount Rates for Cost-Benefit Analysis: A Report for HM Treasury*. [online] Available at: https://assets.publishing.service.gov.uk/media/5fb263ca8fa8f55df1b4e54f/Social_Discount_Rates_for_Cost-Benefit_Analysis_A_Report_for_HM_Treasury.pdf.

Questions:

1. Which approach would provide the most suitable application of discount rates within the additionality model:
    a. Continue to apply a 3.5% (declining) discount rate, in line with the Social Time Preference Rate (STPR)
    b. Apply a rate consisting of a risk-free rate plus suitable risk premia
    c. Select a suitable benchmark for the discount rate to follow
    d. Other
2. Please explain your rationale to Q1.
3. If you selected a suitable benchmark(s), please state which benchmark(s) you would consider most appropriate and your rationale.
4. If you selected a risk-free rate plus risk premia, please select which risk premia should be included. Please indicate whether there is an appropriate publicly-available index or data source that could indicate the relevant risk premium to be added to the discount rate.
5. Do you believe that:
    a. A single discount rate should be applied throughout the model
    b. Different types of cashflows should be discounted at different rates, depending on the underlying risk profile of the underlying activity
    c. Other
6. Please explain your rationale to Q5, and, where applicable, indicate where differentiated rates should be applied.
7. Please provide any additional comments you may have on the discount rate.

Opportunity cost of alternate uses of land

Context

Income forgone is included in the additionality test to reflect the opportunity cost of pursuing a woodland creation project instead of an alternate use for the land. Income forgone is considered as the alternate baseline scenario and used to compare to the NPV of the woodland creation project to determine additionality; a project is considered additional if the NPV of the income forgone is greater than the NPV of the woodland creation project without carbon revenues.

The test considers agricultural uses of the land as alternate income. Four farm types are considered: 'Less Favoured Area ("LFA")' for cattle and sheep farming; 'Cattle and Sheep (lowland)' which entails higher quality land than LFA; 'Arable'; and 'Other land use type'. The data for these farm type incomes are sourced from the Farm Business Survey ("FBS") for England and Wales, and government surveys for Northern Ireland and Scotland. These sources provide average income values, including Basic Payment Scheme payments grouped by country and farm type, as well as variable and fixed costs. Costs are deducted from farm income to arrive at a net farm income figure, which represents the income forgone used in the additionality test. FBS data is widely used across the agriculture sector but can have relatively small sample sizes and is not differentiated at a regional level within each country.

Alternate land uses, such as renewable energy, real estate or other possible nature-based solutions are not considered within the model. While such land uses can represent feasible alternatives to woodland, consideration must be given to the approach to appropriately monitor and scrutinise the hypothetical incomes from such activities to ensure robustness and fairness, whilst delivering a simplified, standardised test and whether reliable and publicly available data on incomes would be available. Furthermore, it is important to ensure that alternative land uses are mutually exclusive to forestry investment in terms of use of a given area of land. Where other enterprises such as eco- tourism or other nature-based solutions can be delivered alongside forestry, these would represent project revenue, rather than opportunity cost. Consideration therefore needs to be given to the practicality of validating costs and revenues associated with alternate land use in a standardised model.

Consultation questions

The future treatment of income forgone could:

- maintain farm income as the only income forgone scenario, retaining the current methodology and data source;
- maintain farm income as the only income foregone scenario, but with changes to the methodology and/or dataset; or
- include a wider universe of alternate scenarios to reflect the potentially broader range of alternative investment opportunities available.

As with the discount rate, the availability of a robust, publicly-available and regularly updated data source is critical. Exploration may be required into improving the data quality of farming data used for the farm income forgone assumption.

Questions:

1. What would be your preferred approach to treat income forgone:
    a. Retain farm income as the only income forgone scenario
    b. Consider a wider universe of alternative incomes forgone
    c. Other
2. Please explain your rationale to Q1.
3. Do you have any feedback on the data and methodology that are currently used for net farm income? Where you are suggesting alternate data sources, please explain the benefits over the data source currently used.
4. If you selected to include other alternative uses of land as income forgone options in Q1, please state which options you believe should be included for consideration within the standardised test. Please explain your rationale for including each option, along with an appropriate publicly-available data source that could be used to determine the income foregone associated with each activity.
5. Do you think there are other ways in which projects may be able to supply reliable income forgone data? If so, please also indicate how the integrity of the data could be verified.
6. Please provide any additional comments you may have on the current approach to treating income forgone.

Appendices

Appendix A – List of questions to be addressed

General questions

1. Please comment on the effectiveness of the Woodland Carbon Code's current approach to assessing additionality.
2. Please identify any advantages and disadvantages that you see with the current tests (i.e. the legal test and the financial test).
3. Please provide any proposals for how the financial test can best operate in the future, including any innovations in how data can be collected and verified at a project level.

Project costs

1. How should costs for a woodland creation project be treated:
    e. Maintain the current list and values of costs, including updating costs regularly
    f. Allocate more projects costs into distinct categories to reflect the size of the project (e.g. small, medium, large)
    g. Expand the list of currently considered costs
    h. Other
2. Please provide your rationale to your answer for Q1.
3. Please describe your views of the values being applied to current costs. If applicable, please suggest alternative data sources to derive values where appropriate. Please also provide a rationale for any proposals.
4. Please comment on the most appropriate frequency for updating project costs.
5. Please provide any additional comments you may have on project costs.

Timber revenues

1. Are you comfortable with the data currently used to model timber spot prices and how the data is applied? Where relevant, please suggest alternative data sources and explain its benefits over the data sources currently used.
2. Do the current woodland categories provide an adequate representation of WCC projects in practice? If not, please explain how they should be changed and your rationale.
3. Are the assumptions on yield classes and timings for timber returns for each category reasonable? If not, please explain how they should be changed and your rationale.

4. Please provide any additional comments you may have on the current approach to estimating timber output and revenues.

Modelling risk associated with woodland creation

1. Which approach would provide the most suitable application of discount rates within the additionality model:
    a. Continue to apply a 3.5% (declining) discount rate, in line with the Social Time Preference Rate (STPR)
    b. Apply a rate consisting of a risk-free rate plus suitable risk premia
    c. Select a suitable benchmark for the discount rate to follow
    d. Other
2. Please explain your rationale to Q1.
3. If you selected a suitable benchmark(s), please state which benchmark(s) you would consider most appropriate and your rationale.
4. If you selected a risk-free rate plus risk premia, please select which risk premia should be included. Please indicate whether there is an appropriate publicly-available index or data source that could indicate the relevant risk premium to be added to the discount rate.
5. Do you believe that:
    a. A single discount rate should be applied throughout the model
    b. Different types of cashflows should be discounted at different rates, depending on the underlying risk profile of the underlying activity
    c. Other
6. Please explain your rationale to Q3, and, where applicable, where differentiated rates should be applied.
7. Please provide any additional comments you may have on the discount rate.

Opportunity costs of alternate uses of land

1. What would be your preferred approach to treat income forgone:
    a. Retain farm income as the only income forgone scenario
    b. Consider a wider universe of alternative incomes forgone
    c. Other
2. Please explain your rationale to Q1.
3. Do you have any feedback on the data and methodology that are currently used for net farm income? Where you are suggesting alternate data sources, please explain the benefits over the data source currently used.

4. If you selected to include other alternative uses of land as income forgone options in Q1, please state which options you believe should be included for consideration within the standardised test. Please explain your rationale for including each option, along with an appropriate publicly-available data source that could be used to determine the income foregone associated with each activity.

5. Do you think there are other ways in which projects may be able to supply reliable income forgone data? If so, please also indicate how the integrity of the data could be verified.

6. Please provide any additional comments you may have on the current approach to treating income forgone.

Additional comments

1. Do you have any additional comments about the WCC additionality test?

Appendix B – Abbreviations used in this paper

Abbreviation	Description
CCP	Core Carbon Principles
CDM	Clean Development Mechanism
CRE	Commercial Real Estate
FBS	Farm Business Survey
GHG	Greenhouse Gas
ICROA	International Carbon Reduction and Offset Alliance
ICVCM	Integrity Council for the Voluntary Carbon Market
LFA	Less favoured area [for cattle and sheep farming]
NPV	Net Present Value
PDD	Project Design Document
PIUs	Pending Issuance Units
STPR	Social Time Preference Rate
VCM	Voluntary Carbon Market
WCC	Woodland Carbon Code
WCU	Woodland Carbon Units

Appendix C – Glossary of terms

Term	Description
Additionality	Greenhouse gas emission reduction or removals resulting from a mitigation activity that would not have otherwise occurred in the absence of the incentive created by carbon credit revenues
Carbon sequestration	The process of capturing and storing atmospheric carbon dioxide in carbon sinks, such as forests, soil, or oceans, to mitigate or defer global warming
Central scenario	A baseline or most likely scenario used in forecasting and planning, which reflects the expected outcome based on current trends and information
Clear-felling	A forestry practice where most or all trees in an area are uniformly cut down
Discount rate	The interest rate used in discounted cash flow analysis to determine the present value of future cash flows, reflecting the time value of money and investment risk
Downside risk	The potential for an investment's value to decrease or for a financial outcome to be worse than expected, often associated with adverse market movements
Financially material	Information or factors that could influence the economic decisions of users
Greenhouse gases	A group of gases that, when released into the Earth's atmosphere, trap heat and contribute to global warming, including carbon dioxide, methane, nitrous oxide, and fluorinated gases
Illiquidity risk	The risk that an entity may not be able to quickly buy or sell assets without causing a significant change in the asset's price and potentially incurring losses

Market risk	The potential for financial losses due to fluctuations in market prices, interest rates, currencies, and other economic factors that affect the value of investments
Net present value	The calculation of the present value of an investment's expected cash flows minus the initial investment cost, used to assess the profitability of a project
Opportunity cost	The cost of forgoing the next best alternative when making a decision or investment, representing the benefits one could have received by taking the alternative action
Pending Issuance Units	Certificates that represent anticipated future carbon sequestration from a woodland creation project, which can be converted into Woodland Carbon Units once the carbon storage is verified
Price index	A statistical measure that tracks changes in the price of a basket of goods and services over time, indicating inflation or deflation in an economy
Spot price	The current market price at which a particular asset, such as a commodity, security, or currency, can be bought or sold for immediate delivery
Stressed scenario	A hypothetical situation used in risk management to assess the potential impact of extreme but plausible adverse conditions on financial positions or the economy
Woodland Carbon Units	Tradable units representing one tonne of carbon dioxide stored in a woodland creation project that meets specific standards and criteria for carbon sequestration

Appendix D – Privacy notice

EY and Scottish Forestry are committed to protecting the data, privacy and security of all information involved with this consultation. For more information, please see the privacy notices for EY and for Scottish Forestry respectively: Privacy statement | EY - UK and Privacy notice | Scottish Forestry.

Appendix E – Current WCC cashflow model

You can access the template cashflow model used for validating WCC additionality here.

Appendix F – Costs included in the current additionality test

In the current additionality test, the following costs are accounted for:

- Woodland creation planning costs*
- Site preparation (including scrub control, bracken control and gorse removal)
- Ground preparation (including hand screefing/turfing, scarification, mounding and ploughing)
- Sapling purchase
- Sapling planting
- Tree protection costs (including tree shelter purchase and installation, tree shelter removal, vole guards, deer control and squirrel traps)

- Weeding
- Beating up
- Fencing costs (including stock fencing, deer fencing* and existing fence upgrade/repair)
- Vehicle access or pedestrian gates
- Rabbit netting
- Road building or track creation
- Ongoing management fees*
- Insurance

The following costs are associated with participating in the WCC. They do not impact whether a project passes additionality, but are included in the model for completeness and to give a better indication of the full costs associated with conducting a project:

- Registration fee
- Validation fee
- Verification fees
- WCC levy
- PIU issuance and PIU to WCU conversion fees
- Survey work

Costs are considered per unit; those marked with an '' include some scalability for project size in the WCC model.*