

July 2011

Guidance on reporting greenhouse gas removals and emissions from domestic woodland creation

Contents

Step 1: Identifying ownership of the carbon in Woodland Creation projects	2
Step 2: Calculating greenhouse gas removals and emissions from domestic woodland creation and deforestation	3
Step 3: Account for GHG emissions from deforestation.....	4
Step 4: Account for GHG removals from domestic woodland creation	5
Step 5: Account for woodland activities overseas	6
Worked example 1 – Company without land holdings invests in woodland creation.....	7
Worked example 2 – Company with land holdings invests in woodland creation.....	8

This annex provides guidance on reporting greenhouse gas removals¹ and emissions from domestic woodland creation² and should be consulted when investing in, and/or maintaining, any UK-based woodland project for carbon purposes, as an additional option to overseas projects that comply with DECC's Quality Assurance Standard for Voluntary Carbon Offsetting. This annex sets out who should report on woodland emissions/removals and how you should report them. This guidance does not cover how to report removals or emissions associated with ongoing management of existing woodland.

This guidance should be used in conjunction with the *Woodland Carbon Code*³, to ensure verification, validation and transparency in your GHG removals/emissions from woodland creation. The *Woodland Carbon Code* covers procedures to certify and register woodland projects and includes all technical requirements including ensuring project additionality, addressing leakage, baseline projections, permanence and carbon accounting methodology. By reporting for GHG removals from a UK woodland project in accordance with this guidance, the reporting company is stating that the project in question meets all of these technical requirements.

Domestic woodland projects are a cost-effective approach to climate mitigation. Investment in woodland creation can also provide social, environmental and economic benefits additional to carbon storage including, as outlined in the Read Report⁴, flood mitigation, decreased use of fossil fuels, sustainably produced timber, use of biomass for heating, new habitat and climate regulation and water runoff control in cities.

Step 1: Identifying ownership of the carbon in Woodland Creation projects

As long as the greenhouse gas emissions and reductions from a woodland creation project are not counted twice by different organisations, organisations can invest in project ton land that they own, lease or rent. Issues surrounding double counting are outlined in the *Woodland Carbon Code*⁵. The *Woodland Carbon Code* has been developed by the Forestry Commission working with a 'Carbon Advisory Group' involving independent forestry sector, environmental and carbon project representation. The 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 based on the UK Forestry Standard (<http://www.forestry.gov.uk/ukfs>); 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

¹ 'Greenhouse gas removals' refer to the biological sequestration of carbon due to trees absorbing carbon dioxide from the atmosphere.

² In addition to removals of GHG emissions, there will be other environmental and social benefits to domestic woodland creation. For more information on these benefits see the *Woodland Carbon Code*.

³ www.forestry.gov.uk/forestry/infid-7m8fm2

⁴ Read, D.J., Free-Smith, P.H., Morison, J.I.L., Hanley, N., West, C.C. and Snowdon, P. (eds). 2009. *Combating climate change – a role for UK forests. An assessment of the potential of the UK's trees and woodlands to mitigate and adapt to climate change*. The Stationery Office, Edinburgh. www.tsoshop.co.uk/gempdf/Climate_Change_Main_Report.pdf.

⁵ www.forestry.gov.uk/carboncode

assurance through the introduction of procedures for registering, validating and verifying woodland carbon projects. A description of common roles and responsibilities is given below but you will wish to note that the categories are not exhaustive and one party may be in more than one category.

Party	Description of role and responsibilities
<i>Project Investor</i>	The party investing in and funding the woodland project. This party may also own the land and may also act as <i>Project Manager</i> . The <i>Project Investor</i> should report all GHG removals/emissions associated with their woodland investment in their company accounts.
<i>Land Owner</i>	The party who owns the land where the project is situated. The <i>Land Owner</i> may or may not be the <i>Project Manager</i> . The <i>Land Owner</i> may only report the carbon removals associated with the project if they are also the <i>Project Investor</i> .
<i>Project Manager</i>	The party who calculates the GHG removals/emissions from the woodland project and takes responsibility for all project activity, including registration and all other administrative activities as required under the Woodland Carbon Code.

Table 1: Description of role and responsibilities

The project manager should take responsibility for calculating GHG removals/emissions and produce an annual carbon statement which clearly shows who owns and may report GHG emissions/removals resulting from the project.

If you are investing in a new woodland project, you can report the GHG removals/emissions providing the project meets the requirements of the Woodland Carbon Code. Where the term project ‘sponsor’ is used, and the project meets the other requirements of the Guidance, the Guidance considers that the sponsor should be considered to be the project investor. Where there is more than one project investor, the project manager should calculate emissions and reductions for each investor based on each investor’s proportional stake in the investment.

If you are investing in an existing project you should ensure it was registered from the outset if you wish to report the carbon benefits. Further details are outlined in the *Woodland Carbon Code*.

The *Woodland Carbon Code* allows retrospective registration for some projects under given criteria.

Domestic woodland projects cannot be termed or traded as ‘offsets’⁶. However, projects may be sold onto other organisations but details should be captured in project contracts and the *Woodland Carbon Code* project registry. The underlying principle is that GHG removals/emissions may only be reported once, and for the year in which they occur – and this principle applies in all cases.

Step 2: Calculating greenhouse gas removals and emissions from domestic woodland creation and deforestation

⁶ See Annex G of this guidance (page 50) for further details.

To calculate the GHG removals/emissions figures, you should use the carbon calculation tools available from the Woodland Carbon Code website⁷ or an alternative methodology that is detailed in the project documentation and has been Peer-reviewed by relevant experts and approved by the Forestry Commission.

GHG removals/emissions should be calculated on an annual basis, from Year 1. It is acceptable for these removals/emissions to be based on model forecasts but they must be periodically adjusted to reflect actual carbon exchange as explained in the *Woodland Carbon Code*. GHG removals should only be reported once the carbon is physically sequestered, i.e. each report accounts for removals which occurred in that reporting year.

In the years immediately following planting - depending on soil type, previous land-use and land cover, tree species planted, and the level of intervention required for successful establishment and ongoing management - woodland creation may result in some emissions and little or zero GHG removals⁸. There may therefore be a number of years when emissions rather than removals are reported and footnotes to your reporting table to disclose the expected outcomes of the woodland project in terms of GHG removals may be advisable. The overall annual reported figure for woodland creation must reflect both GHG removals and emissions.

Step 3: Account for GHG emissions from deforestation

GHG emissions associated with the implementation and maintenance of the woodland project should be reported to give a balanced and complete picture of your activities. In addition, GHG emissions from any other deforestation connected to your business should also be reported. Like other GHG emissions, if according to your organisational boundary you are directly responsible for the emissions, they should be included within your scope 1 emissions. However, if the emissions arise from activities for which you do not have direct control, then the emissions should be included within your scope 3 emissions.

Emissions from deforestation can be calculated using the carbon assessment tools available from the Woodland Carbon Code website. Methods from the UK GHG Inventory may also be used.

- Information and regulations relating to permanent woodland removal for planning (subject to the Town and Country Planning Act) or nature conservation/other reasons (subject to EIA forestry regulations) are available from the relevant Local Authority Planning Department or Forestry Commission⁹ office.
- If you are reporting your GHG emissions from deforestation overseas, please refer to the GHG Protocol's '*The Land Use, Land-Use Change, and Forestry Guidance for GHG Project Accounting*'.¹⁰

⁷ www.forestry.gov.uk/carboncode

⁸ The party reporting the benefits of the woodland project must report both GHG removals and emissions.

⁹ www.forestry.gov.uk/forestry/INFD-7FCH5D

¹⁰ www.wri.org/publication/land-use-land-use-change-and-forestry-guidance-greenhouse-gas-project-accounting

Step 4: Account for GHG removals from domestic woodland creation

Where you own the carbon rights to a woodland creation project you may deduct the amount of carbon physically sequestered in that reporting year as a result of the woodland project. GHG removals must only be reported once, for example, the *Land Owner* cannot report the removals if another party – such as an investor - owns the woodland project and intends to report the carbon sequestered by the project (see step 1 for identifying who may report removals).

The carbon removal should be shown as a separate line – along with any other emission reductions (see Annex G) – prior to calculating your net emissions. You should record it as “carbon sequestration from domestic woodland creation” and you may deduct the figure from your gross emissions. Deductions should only be reported once the carbon sequestration has occurred i.e. each report accounts for GHG removals/emissions which occurred in that reporting year. See worked example (below).

- As set out in the Woodland Carbon Code, woodland creation projects that are a legal requirement or a condition of a planning decision (generally as compensation for illegal felling or deforestation) are not eligible for certification to the Code and should not be reported. It should also be noted that restocking following harvesting is not an eligible activity and its associated carbon sequestration should not be reported.
- It is suggested that, in addition to the information already listed in Annex I, the notes accompanying your GHG emissions report should cover the following.
- The expected outcome of the project in terms of GHG removals.
- An explanation for the GHG emissions in the first 1-5 years of the project. This may be in the form of a statement such as: *‘Company A has invested £500,000 in a woodland project planting [y] trees in [z] location. There has been a period of net greenhouse gas emission for the early years of the project due to soil type, previous land-use and land cover, the tree species planted and the level of intervention required for successful establishment and ongoing management. However, over x years, [our share of]’¹¹ the woodland project would be expected to result in net greenhouse gas removals of 1000 t.’*
- The source of funding of the project. For example, is it your company or your customers or your employees who have paid for the woodland project? Customers may be the source of funding if money from a line of products specifically goes towards a woodland project. Projects funded by the company, the customer, through payroll deductions or a combination of these, may be reported, stating the source of funding.
- Length of project and what will happen to the woodland at the end of an investment period or at the end of the entire project, if known. This should also include a statement on what provision has been made for the permanence of the land-use change to woodland.
- The environmental and social benefits provided by the woodland creation project, over and above carbon storage.

¹¹ If more than one business is investing in the project

Step 5: Account for woodland activities overseas

If you are investing in woodland creation overseas, you may want to report these external emissions reductions in your net CO₂e tonne figure where the 'good quality' criteria for offsets, as are outlined in Annex G of this guidance, are met. Any GHG reductions that meet the mentioned offsetting criteria should be reported in the '*Overseas Carbon Offsets*' line of the reporting table (Page 59 of this guidance).

Worked example 1 – Company without land holdings invests in woodland creation

Company A, a UK based company, wants to invest in woodland creation and pays a *Project Manager* (who in this case also owns the land) £500,000 to plant and manage 50 hectares of woodland, in keeping with the requirements of the UK Forestry Standard and the *Woodland Carbon Code*. *Company A* pays the *Project Manager* at the outset of the project and the woodland project is entirely financed by *Company A*.

As well as planting and managing the woodland, the *Project Manager* would need to register the woodland project as set out in the *Woodland Carbon Code* and follow the *Code's* requirements. The *Project Manager* would need to produce an annual carbon statement which clearly showed the sale of all woodland projects to third parties. The *Project Manager* would not be able to claim the GHG removals/emissions for the same woodland as *Company A*.

The *Project Manager* would calculate the GHG emissions and removals associated with the project and inform *Company A* on an annual basis. *Company A* could then report these figures in their annual carbon statement as shown in Table 2.

Reporting Format for Company A

Greenhouse Gas Emissions Assessment			
	Tonnes of CO₂e		
	2011	2012	Base Year 2010
Scope 1 (direct emissions)	500 t	500 t	500 t
Scope 2 (energy indirect emissions)	1,000 t	1,000 t	1000 t
[Scope 3 (other indirect emissions) – if included] ¹²	2,010 t	2,000 t	2050 t
TOTAL GROSS EMISSIONS	3,510 t	3,500 t	3,550 t
Overseas Carbon Offsets ¹³	(100 t)	(100 t)	(100 t)
GHG removals from UK Woodland Project ¹⁴	0 t	(100t)	0t

¹² This includes any GHG emissions associated with the implementation and maintenance of the woodland project for *Company A*. There may be net emissions in the first year, or even for a number of years, of a woodland project. This is dependent on the type of land, previous land-use, type of trees planted, machinery used etc. However, net emissions would be expected to be temporary and can be accompanied by an explanatory statement. The organisational boundary determines whether the emissions should be recorded under Scope 1, rather than scope 3. In this case, *Company A* has indirect control and so the emissions are classed as scope 3.

¹³ See Annex G for what can be reported as an offset.

¹⁴ GHG removals associated with UK-based woodland creation represent a contribution to helping the UK to meet its emissions reduction targets. They cannot and should not be presented as carbon offsets or as tradable units on international carbon markets.

TOTAL ANNUAL NET EMISSIONS	3,410 t	3,300 t	3,450 t
-----------------------------------	----------------	----------------	----------------

Table 2: Emissions Report for Company A (Worked Example 1)

After a period of ten years, *Company A* may choose to sell on the woodland project. *Company B* may then decide to invest in this woodland project. The GHG removals/emissions would then be reported by *Company B* from Year 11, if Year 10 was the final year *Company A* reported the GHG removals/emissions in their accounts. *Company B* cannot claim any of the GHG removals/emissions previously reported by *Company A* but can claim GHG removals from Year 11 onwards. The *Woodland Carbon Code* registry would reflect changes in the ‘ownership’ of the carbon benefits associated with the project.

Worked example 2 – Company with land holdings invests in woodland creation

Company C, a UK based company with its own land holdings, decides to invest in woodland creation. In keeping with the requirements of the UK Forestry Standard and the *Woodland Carbon Code*, *Company C* plants and manages 5000 hectares of woodland. The project is entirely project managed by *Company C* but to raise finance it seeks 40% investment in the woodland project from *Company D*.

As well as planting and managing the woodland, *Company C* would need to register the woodland project as set out in the *Woodland Carbon Code* and follow the *Code’s* requirements. It would need to produce an annual carbon statement which clearly showed the ownership of the woodland project as 60% *Company C* and 40% *Company D*.

Company C (as project manager) would calculate 100% of the GHG emissions and removals associated with the project on an annual basis. *Company C* could then report its share i.e. 60% of these figures in their annual carbon statement as shown below.

Reporting Format for Company C

Greenhouse Gas Emissions Assessment			
	Tonnes of CO2e		
	2011	2012	Base Year 2010
Scope 1 (direct emissions ¹⁵)	500 t	500 t	500 t
Scope 2 (energy indirect emissions)	1,000 t	1,000 t	1000 t
[Scope 3 (other indirect emissions)]	2,010 t	2,000 t	2050 t

^{15 15} This includes any GHG emissions associated with the implementation and maintenance of the woodland project for *Company A*. There may be net emissions in the first year, or even for a number of years, of a woodland project. This is dependent on the type of land, previous land-use, type of trees planted, machinery used etc. However, net emissions would be expected to be temporary and can be accompanied by an explanatory statement. The organisational boundary determines whether the emissions should be recorded under Scope 1, rather than scope 3. In this case, *Company A* has direct control and so the emissions are classed as scope 1.

– if included]			
TOTAL GROSS EMISSIONS	3,510 t	3,500 t	3,550 t
Overseas Carbon Offsets ¹⁶	(100 t)	(100 t)	(100 t)
GHG removals from UK Woodland Project ¹⁷	0 t	(60t)	0t
TOTAL ANNUAL NET EMISSIONS	3,410 t	3,340 t	3,450 t

Table 3: Emissions report for Company C (Worked Example B)

Company C would need to notify *Company D* of both the emissions and removals attributed to the woodland creation project and *Company D*'s proportion of those emissions/removals. In this example, *Company D* should report 40% of the emissions/removals in line with its investment in the project i.e. in the above example, in 2012 where the project removes 100 tonnes of CO₂e, *Company C* can claim 60 tonnes and *Company D* can claim 40 tonnes.

¹⁶ See Annex G for what can be reported as an offset.

¹⁷ GHG removals associated with UK-based woodland creation represent a contribution to helping the UK to meet its emissions reduction targets. They cannot and should not be presented as carbon offsets or as tradable units on international carbon markets.

© Crown copyright 2011

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/ or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or e-mail: psi@nationalarchives.gsi.gov.uk

This document/publication is also available on our website at:

<http://www.defra.gov.uk/environment/economy/business-efficiency/reporting/>

Any enquiries regarding this document/publication should be sent to us at:

ghgreporting@defra.gsi.gov.uk