

Position Statement

Trees and carbon

September 2013



WOODLAND
TRUST



Position Statement

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The Trust's view

- The UK's trees and woods are a valuable carbon store, as are the soils on which they stand.
- Trees have the virtue of removing atmospheric carbon dioxide as they grow, so helping counter the effects of global warming.
- Trees deliver multiple co-benefits relevant to adapting to climate change, such as helping reduce urban heat island effects and mitigating river and surface water flooding, which themselves have a carbon cost.
- Trees are a sustainable source of materials that can be used as an alternative to carbon intensive materials such as steel and concrete.
- Trees can be a sustainable source of biomass energy, used as an alternative to fossil hydrocarbons.
- Whilst the ability of trees to sequester carbon is important it should not override the need to safeguard ecological value, particularly in terms of the appropriateness of planting locations and species selection.
- Deadwood, both standing and fallen, is a valuable ecological habitat.

The Trust will

- Promote the benefits of woodland creation as a means of reducing atmospheric carbon dioxide.
- Engage with businesses and individuals seeking to reduce their greenhouse gas emissions footprint by planting trees, where this is part of an integrated, hierarchical strategy that places avoidance and reduction first.
- Lobby for greater recognition of the role of trees and woods in helping mitigate the global warming impact of carbon emissions and adapting to the changing climate.

Background

Trees, woods and forests are a crucial part of the carbon cycle and form a globally significant store that contains more carbon than the atmosphere. This store is vulnerable: deforestation accounts for roughly one fifth of global greenhouse gas emissions, greater than the entire transport sector.

Growing trees sequester carbon dioxide from the atmosphere, split it and release the oxygen. The carbon is only released when the tree dies or is cut down and either decays or is burned. Any carbon released can be considered to be part of the carbon cycle, as opposed to fossil carbon (coal, oil, gas) which was taken out of circulation millions of years ago.

Although the carbon held in individual trees is only stored temporarily (for the lifespan of the tree plus any further use, such as construction materials, furniture etc) the woodland carbon store is more permanent. The UK Forestry Standard provides legal protection for woodland: felling licences usually require that harvested woodland is restocked. Therefore woodland creation activity increases the size of the UK's land-based carbon sink.

As the woodland matures the rate of sequestration tails off until a balance is met between carbon oxidised by dead trees and carbon sequestered by growing ones. Carbon will continue to accumulate in soils, especially in deciduous woodland.

Woodland creation as a form of carbon offsetting

The Woodland Trust has been closely involved in the development of the Government-led Woodland Carbon Code (WCC), which was published in 2011. The WCC provides a best practice standard for domestic woodland creation schemes that are financed by, or hope to attract finance from, the sale of the carbon "credits" that will accumulate over time.

Biomass and harvested wood products

Energy from woody biomass can replace emissions from fossil sources, in theory providing a low (not zero) carbon fuel. For further information see our separate Position Statement on Bioenergy. Harvested wood products have the twin benefits of storing sequestered carbon and at the same time avoiding emissions through use of carbon intensive alternatives. Timber is also a renewable resource so is more sustainable over the long term.

The Woodland Trust View

Off site carbon mitigation is a legitimate part of any responsible corporate emissions reduction strategy. It should be within a hierarchical approach that first avoids emissions where possible, limits them to a minimum, finally compensating for those that are unavoidable.

In practice, many businesses are seeking to cut emissions because of the business efficiencies it delivers, ultimately in terms of cost savings. Off site compensation, such as woodland creation, is often a voluntary extra that helps improve a business' corporate image.

Woodland expansion is arguably the most cost effective and readily scalable means to reduce atmospheric carbon dioxide loads. But woodland also delivers multiple co-benefits to both wildlife and people, at both local and landscape levels.

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