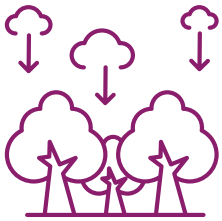
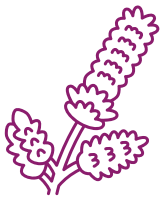


Carbon capture



Hutton research has found that tree planting and natural regeneration on heather moorlands, with large soil carbon stores, does not necessarily result in net carbon sequestration. Tree growth sequesters carbon, and in recent years **government policy has incentivised woodland expansion to help mitigate climate change and increase biodiversity.**



However **the Hutton has found that planting trees, and even natural regeneration, in the uplands does not always result in net carbon capture compared with maintaining heather ground cover.** Woodland expansion may be desirable for biodiversity reasons but this research brings in to question the impact on climate change mitigation. This has important implications for land use policy and the forestry industry as well as carbon credits and land markets.

The Hutton research found that **carbon was captured in naturally regenerating trees, but it did not exceed the carbon lost from soils over a 25 year period.** The 25-year timescale is significant, as Scotland has pledged to achieve net zero carbon emissions by 2045, partly by increasing tree cover. It was found that naturally regenerating trees influence soil processes.



Tree litter provides soil organisms with more nutrients which speeds up their respiratory rate. The soil decomposes quicker releasing carbon to the atmosphere. The Scottish Government has set legally binding targets to reach net zero emissions by 2045 and has policies to incentivise reduction in emissions and carbon capture. **The Hutton is helping to ensure that land use aligns effectively with net zero targets,** ensuring effective government funding of incentives and best use of natural capital investment

