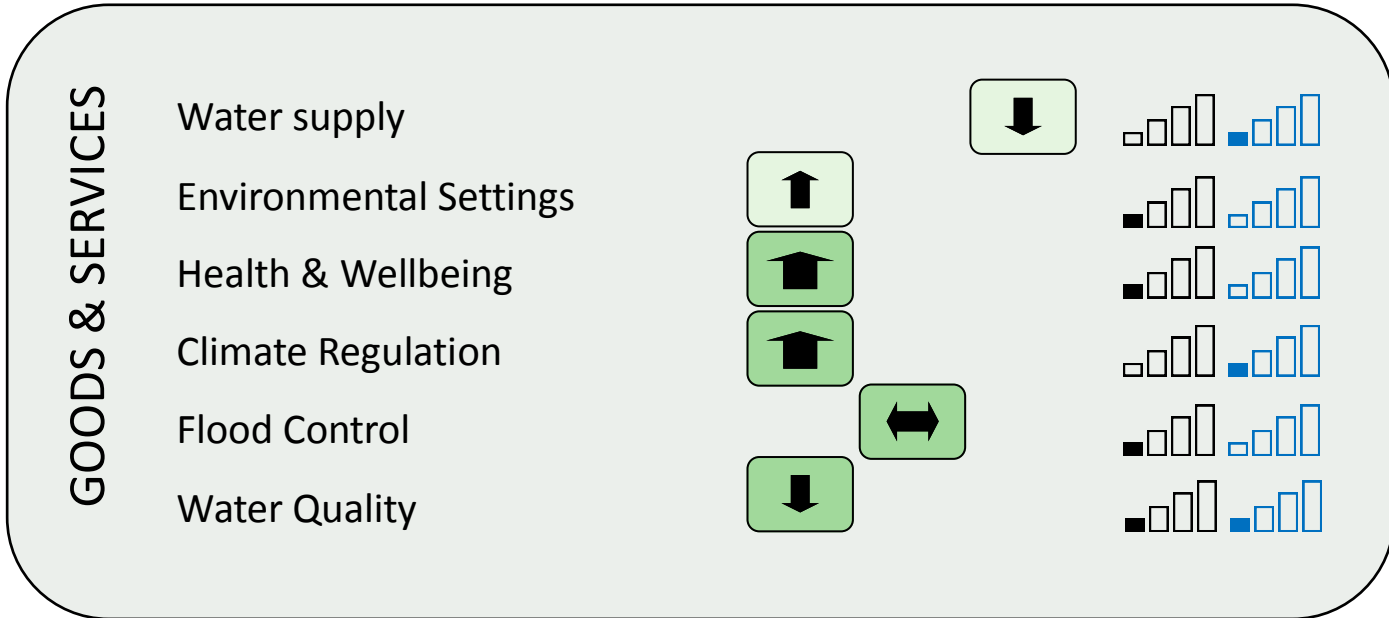


Promote natural woodland regeneration or actively replant native trees (conifer or broadleaved)

MANAGING ECOSYSTEM SERVICES

UPLANDS

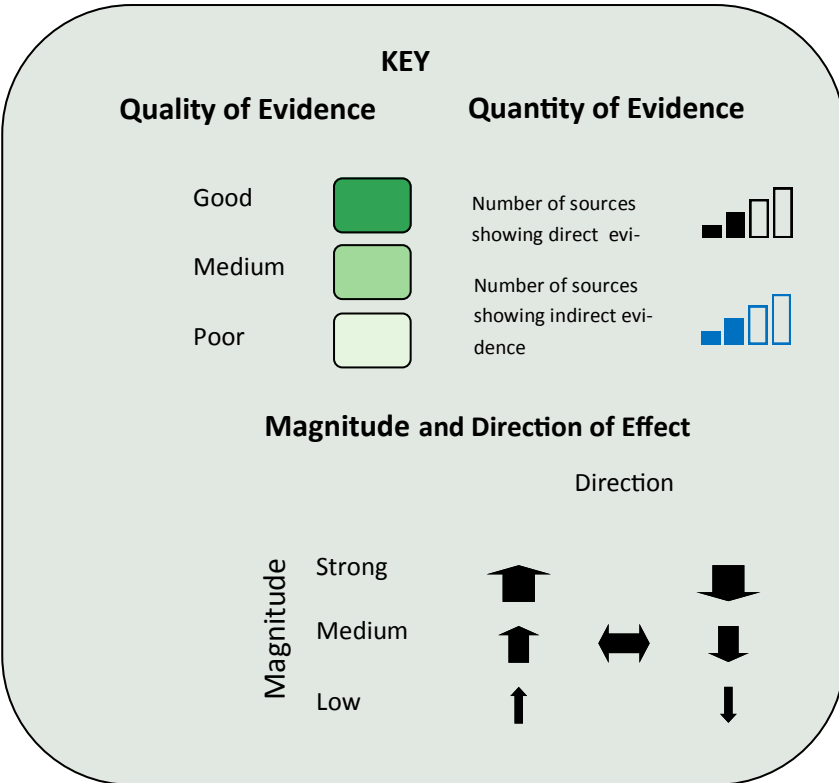
INCREASE TREE COVER



These pages represent a review of the available evidence linking management of habitats with the ecosystem services they provide. It is a review of the published peer-reviewed literature and does not include grey literature or expert opinion. There may be significant gaps in the data if no published work within the selection criteria or geographical range exists. These pages do not provide advice, only review the outcome of what has been studied.

Full data are available in electronic form from the [Evidence Spreadsheet](#).

Data are correct to March 2015.



MANAGING ECOSYSTEM SERVICES

UPLANDS

INCREASE TREE COVER

Provisioning Services—providing goods that people can use.

Cultural Services—contributing to health, wellbeing and happiness.

Regulating Services—maintaining a healthy, diverse and functioning environment.

PROVISIONING

Water Supply: *Weak Evidence*:- A study of two afforested catchments in Loch Ard, Scotland suggests that planting of forests in catchments that drain into reservoirs may increase interception and evapotranspiration and so reduce water supply¹.

CULTURAL

Environmental Settings: *Moderate Evidence*:- A survey in the Central Southern Uplands showed that visitors preferred a more grazed landscape and a moderate expansion of tree cover². An estimated 3.5% of the Scottish adult population who had visited woodlands in the previous 12 months said that their visits had involved seeing something of cultural interest in the wood (e.g. cultural features such as sculptures, ancient trees or historic sites). Approximately 7% of all visits to woodlands involved seeing features such as these³.

Health & Wellbeing: *Moderate Evidence*:- A study of recreational use of Scottish forests found 37-68 million forest visits by Scottish adults over 5 years. 63.5% of Scottish children made 11.6 million visits 2006/07. 5% of Scottish adults had attended an event in a Scottish forest that required physical exercise per year. 82% of those questioned agree it reduces stress and anxiety³.

Climate Regulation: *Moderate Evidence*:- A study of upland forests in the USA has shown that cessation of timber harvesting would result in an increase of carbon stock in the forest of 54% over 100 years in aspen/birch forests and 30% in conifer forests. Harvesting of the stands at 1-2% per year would result in a net gain of carbon sequestration as long as the timber products were not burned⁴. In the UK, forestry is estimated to provide abatement of around 25% of current carbon dioxide (CO₂) emissions through storage in the soil and commercial timber products⁵.

Flood Control: *Moderate Evidence*:- Forested floodplains can help to delay floodwater and thus regulate the timing of floods but this depends on the geography and the geology of the floodplain and the location of planting⁶. The result of forest regulation of floods depends on the age of the stand however, with increased flows in the first 20 years, decreasing after that⁷.

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