

# Adaptation to climate change in private sector forestry: a Welsh case study

Climate change is a key driver of forest policy in the UK requiring a change in forest management practices. With nearly two thirds of woodland in Great Britain in private ownership, this study assessed the extent to which the private forest sector is responding to climate change. Using a case study based in Wales, it found that woodland managers and some advisors are not convinced of the need to adapt and that generally, the level of climate change adaptation was low. The study makes recommendations which could be used to encourage adaptive behaviours.



"I think there's probably an awareness of climate change but I don't know. I'm not sure the connection's been made between climate change and growing the trees" [Commercial agent]

### Background

Climate change is a key driver of forest policy in the UK requiring a change in forest management practices. Nearly three quarters of the woodland in Great Britain is in private ownership. This research explored the perceptions of climate change and risk amongst forest managers, owners and advisors in the private sector. It investigated whether and how they are adapting their forestry practices and the types of support they need to enable adaptive behaviours. The work was carried out as part of an EU-funded project on adaptation to climate change in the forestry sector, with the UK case study being located in North Wales.

## **Objectives**

This research aimed to: 1) Understand how beliefs in climate change have influenced forest management practices; 2) Identify the constraints that private sector foresters face in changing forest management practices; 3) Consider the implications for implementation of climate change policy in the forestry sector.

#### Methods

The research involved 12 semi-structured interviews with key informants. Interviewees included forestry agents, estate managers and community woodland group leaders, representatives from local authorities, large landowning NGOs and a timber industry membership organisation.



## **Findings**

Woodland mangers and some advisors are not generally convinced of the need to adapt. Overall the level of climate change adaptation was low and where adaptation was taking place, it was usually for reasons other than a concern about climate change. An absence of adaptation may be due to a lack of confidence in climate change predictions and a limited evidence of changing conditions on the ground. On the other hand, tree health was highlighted as a cause for concern and uncertainty, with the recent increase in pests and diseases linked to climate change in some cases. Diversification of species choice is the principle means of adaptation but there was a deep divide in opinion about how this should occur. Those with a commercial interest focussed on new exotic species while small-scale owners relied more on native genetic diversity. More generally, uncertainty about species choice was cited as a prime reason for not changing. A further barrier raised included a lack of confidence that the timber market will accept less familiar species. Participants highlighted the need for greater engagement between the public and private sector on issues around climate change adaptation.

#### Recommendations

- Agents play an influential role in forest management decisions, particularly in relation to species choice. Seminars where forestry agents are able to discuss climate change messages were seen as useful.
- Grants can often steer behaviour towards particular species but often do not make any connection to the climate change agenda. For those interested in grants, changing the conditions of the grant (e.g. to require a wider range of species) would be an effective incentive. An explicit linkage to climate change could raise awareness.
- Framing engagement about adaptation practices so it incorporates tree health concerns as well as climate change could increase effectiveness.
- Further research is needed to test the spatial variability in local conditions and attitudes and behaviours linked to climate change.

For further information contact: mariella.marzano@forestry.gsi.gov.uk.

**Funding:** EU and the Forestry Commission

**Reports and Publications**: Lawrence, A., Marzano, M. (2014) Is the private sector adapting to climate change? A study of forest managers in north Wales. Annals of Forest Science, 71(2):291-300