The Royal Society of Edinburgh
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Consultation closing date
Monday 5 December 2022, 23:59

RSE inquiry into public support for tree planting and forestry

Respondent form

Respondents wishing to submit evidence should use this respondent form. It is essential that submissions are properly evidenced and concise, highlighting the key issues as they pertain to the consultation questions. Peer reviewed science is important, but other forms of evidence will be considered, including (but not limited to) internal reports, grey literature or photos (georeferenced and dated). Respondents should refrain from submitting full-scale reports in their entirety but include relevant conclusions in their written response with references to the full report.

We do not expect that all respondents will submit answers to all questions, and you may wish to confine your response to a single section. Each answer should be no longer than **500 words,** and some may be very short. Please send any additional evidence as an email attachment.

Please return your completed respondent form to tree@therse.org.uk by 23:59 on Monday, 5 December 2022.

Definitions

There are several different terms used for tree planting. Thus, within the context of this Inquiry and subsequent report, we will use ***Commercial Forestry*** to cover tree planting that is wholly or in part intended for harvesting (some refer to this as productive forestry), and ***Woodland*** to cover tree planting that is intended to remain as such for the long term. For consistency, we should be grateful if you would retain this same terminology in your submission.

Personal details:

Are you responding on behalf of:

☒ An individual

☒ An organisation

Full name or organisation's name:

Prof Dave Reay, Edinburgh Climate Change Institute, University of Edinburgh

Email address:

Phone number:

Address:

I consent to my or my organisation's response being published or referenced:

☒ Yes

☐ Yes, with no direct attribution (i.e. anonymously)

☐ No

Please note the RSE will handle and store your personal information in accordance with our organisational Privacy Policy:
https://rse.org.uk/about-us/our-policies-and-corporate-information/privacy-policy/

Evidence request

We consider that the desired public benefits from tree planting comprise timber production, carbon sequestration, biodiversity enhancement, recreation, water management and reduction in air pollution, together with economic and social community benefits.

1. If you consider there to be other benefits, please provide evidence for them. [500 words]

Response: Where used well, tree planting can provide significant additional to those cited. There are potential benefits in terms of food production e.g. direct production through fruit and nut trees, ad well as important indirect benefits through the use of trees for shelter (such as shelter belts) and in-field agroforestry systems. See these recent CXC reports for an overview:
https://www.climatexchange.org.uk/media/3312/agroforestry-in-scotland-potential-benefits-in-a-changing-climate.pdf
https://www.climatexchange.org.uk/media/5388/cxc-the-potential-for-agroforestry-to-reduce-net-ghg-emissions-in-scotland-through-the-woodland-carbon-code-may-22.pdf
https://www.climatexchange.org.uk/media/2020/cxc-woodlands_agroforestry_policy_brief.pdf
https://www.climatexchange.org.uk/media/5312/cxc-understanding-carbon-sequestration-from-nature-march-2022.pdf
Trees also have a potentially important role to play in the substitution of fossil fuel energy, such as through bioenergy generation and BECCS.

We seek to establish the extent to which current practices are delivering these benefits, how far they represent good public value in the short and long term, and what more, if anything, could be done to improve public benefits in tackling the climate-nature crisis and the economic and social well-being of resident communities by tree planting, woodland and commercial forest management.

Carbon sequestration

2. Scottish Government has set targets for reductions in greenhouse gas emissions of 75% by 2030 and 100% by 2045 and placed commitments for woodland and commercial forestry expansion in this context. What evidence is there that current practices will ensure that all newly planted woodland will be a net sink over this period, taking account of both above- and below-ground carbon? What impact will the time lag for carbon capture of new plantings and the harvesting of previously planted commercial forestry have on meeting the targets? [500 words]

Response: Most of the new and future (next 10 years) planting will only deliver significant C seq for the 2045 target. The Forestry Standard, Woodland Carbon Code and Forestry Grant Scheme requirements all provide assurance of planting that will provide a net sink (e.g. avoiding deep peat), but even the fastest growing species (e.g. Sitka spruce) will take a decade or more after planting before appreciable net C sequestration can be expected. This time lag inevitably has an effect on how much re- and afforestation can help to meet the targets, with a relatively small impact on the 2030 goal given that is now only 8 years away, but a much bigger one for 2045. One key aspect is therefore the types of trees grown, their management and location (so yield class achieved), and overall areas. Short rotation coppice, for example, could deliver relatively rapid increases in net C seq. between now and the 20040s, though that might be expected to deliver C savings primarily through fossil fuel substitution or BECCS.

3. Are the current carbon sequestration requirements specified by the Woodland Carbon Code and UK Forestry Standard delivering their objectives?[1] [500 words]

Response: In my experience yes. The UK Forestry Standard is of very high quality and utility in my view. The WCC provides relatively simple guidance on estimation of C seq achieved over time, but is useful.

4. Are these requirements consistently applied? [500 words]

Response: Not in a position to say

5. Is independent inspection to verify initial and continuing fulfilment of the Code and Standard satisfactory? [500 words]

Response: Not in a position to say

6. Do you have evidence that offsetting payments are delivering carbon capture and other benefits in practice? [500 words]

Response: Not in a position to say

Biodiversity and environmental benefits

7. Do you have evidence on the role tree species choice and composition have in influencing biodiversity, timber production, flood management, and other outcomes? Do the species of trees and the mix of species help, hinder or change the balance of the benefits being sought? [500 words]

Response:

[1] We recognise that the Woodland Forestry Standard is currently under revision, with an updated version due to be introduced by the end of 2022/2023. Practice indicates the existing Standard (published in 2017) should be followed until that time.

This CXC study on diversifying conifers is relevant (esp. in terms of timber production): https://www.climatexchange.org.uk/media/4079/diversifying-conifers-in-productive-forests.pdf
I would suggest it is worth also including a question about suitability and resilience here. For example, different tree species also have different levels of resilience in terms of climate-induce change in drought, pest and disease risk. See: https://www.climatexchange.org.uk/media/4956/cxc-drought-risk-in-scottish-forests-february-2021.pdf and also: https://www.climatexchange.org.uk/media/3055/climate-change-impacts-on-scotlands-forestry-supply-chain.pdf

8. Do you have evidence that planted woodland and commercial forestry impedes the balance between itself and the biodiversity value of other landscapes, habitats or other biodiversity interests? [500 words]

Response: Not in a position to say

9. Do you have evidence that woodland and commercial forest design and creation practices support or hinder biodiversity benefits? [500 words]

Response: Not in a position to say

10. To what extent are Environmental Impact Assessments[2] carried out prior to design and planting? [500 words]

Response: Not in a position to say

11. Do you have evidence that woodland and commercial forestry management practices support or hinder biodiversity? [500 words]

Response: Not in a position to say

12. Are the sources of seed and new trees sufficient to meet national tree planting targets? [500 words]

Response: Not in a position to say

13. Do you have evidence that large-scale planting on a regional level leads to negative impacts on biodiversity? [500 words]

Response: Not in a position to say

14. Do you have evidence of any practices, good or bad, that you wish to highlight? [500 words]

Response: No

Community benefits:

15. Are there potential improvements that could be made to regulations and/or practice that could improve the recreational, employment or other community benefits of tree planting or commercial forestry schemes? [500 words]

Response: Undoubtedly. For the voluntary C market I'd recommend the briefing by Dr Jill Robbie Dr Giedre Jokubauskaite here: https://www.landcommission.gov.scot/downloads/628dec08cebe1_Land%20Lines%20Nat

[2] An Environmental Impact Assessment (EIAs) is intended to identify and mitigate the potential impacts of a proposed development and is required for planning consent. Within the context of forestry, EIAs can apply to afforestation, deforestation, forest roads and forestry quarries. More information on forestry EIAs can be found here: https://forestry.govscot/support-regulations/environmental-impact-assessment

%20Cap-Carbon%20Markets,%20Public%20Interest%20and%20Landownership%20in%20Scotland.pdf

In particular, my view is that the voluntary C market and use of the Woodland Carbon Code, for instance, requires greater safeguarding through regulation and oversight by central government

16. Are local communities sufficiently involved in the development of tree planting or commercial forestry schemes? [500 words]

Response: Not always. There is significant concern in some communities that they are not being involved in decisions which will define land use around them for many decades or centuries to come

17. If not, what are the barriers and how might they be overcome; if they are, what works well? [500 words]

Response: I refer again to the briefing paper above (), my own view is that central government and its agencies have a key role here in ensuring safeguards are in place to deliver community engagement, support and benefits.

18. Do you have evidence of tree planting leading to quantifiable economic and social benefits, short and long term, for communities local to the planting? [500 words]

Response: Not in a position to say

19. Do woodland and commercial forestry planting result in any disadvantages to communities local to the planting? [500 words]

Response: Depends on the site and scheme.

20. To what extent does current financial support for tree planting enable planting in urban areas, including in streets/roadsides and other urban settings? [500 words]

Response: Not in a position to say

21. Does Scotland have sufficiently skilled people to deliver/continue to deliver the desired benefits from woodland and commercial forestry? If not, what changes are needed? [500 words]

Response: Important area, and the answer is no - Scotland is facing an acute shortage of foresters and related skilled roles that are needed to deliver on the planting targets. I would refer you to Helen McKay (Chief Forester for Scotland) and the analysis of her team on current training provision vs. that which is required. Also worth talking to Land-based Skill Commission.

22. Do you have evidence of any conflicts between public financial support for tree planting and other land uses? [500 words]

Response: Not in a position to say

23. Are there evidenced wider societal community benefits that arise from woodland and commercial forestry creation? If there are, should these benefits be formally required or financially supported? [500 words]

Response: Not in a position to say

Finance

24. Do you have evidence that the following forms of public financial support for tree planting provide good value for money:

    I. Grants for tree planting? [500 words]
    II. Carbon offset and investment payments by government, charities or the private sector? [500 words]
    III. Tax allowances for land used for tree planting and commercial forests? [500 words]
    IV. Farm payments applicable to land planted with woodland or commercial forest, e.g. Basic Payment Scheme? [500 words]

Response: Not in a position to say

25. Do you have evidence that any of these payments have unintended results? [500 words]

Response: Historically (e.g. 70s, 80s and 90s, this is well evidenced in terms of planting on deep peat area. Unclear if current regime is still causing such unintended outcomes.

26. Do you have evidence that the interaction of these payments has any public benefits or disbenefits? [500 words]

Response: Not in a position to say

27. Do you have evidence that the structure of payments or allowances supports or hinders the public benefits? [500 words]

Response: Not in a position to say

28. Do you have evidence of any impact on land values as a result of payments/allowances? [500 words]

Response: The C and timber market generally is increasing demand for land and so prices, especially in upland areas in terms of woodland creation for C sequestration. See latest analyses from Strutt & Parker and similar (e.g. https://rural.struttandparker.com/article/farmland-values-in-scotland-surge-due-to-rising-competition/)

29. Are the anticipated changes in farming support likely to have any impact upon woodland or commercial forestry creation?[3] [500 words]

Response: Yes, should be very significant

This is a complex field and the questions above are not prescriptive. We should be pleased to learn of any other benefits, or disbenefits, you consider are brought about by public financial support for tree planting and commercial forestry in Scotland and if you consider that public financial support could be redesigned to provide greater benefits.
Thank you for taking the time to work through these questions.

[3] It is relevant to mention that Scottish Government is currently consulting on proposals for a new Agriculture Bill which will have implications for farm payments in practice. More information on the Agriculture Bill can be found here: https://www.gov.scot/publications/delivering-vision-scottish-agriculture-proposals-new-agriculture-bill/