

Woodland Trust Response to the Independent Panel on Forestry's Call for Views

Question 1 – What do forests and woods mean to you?

Woods and trees are essential to life. They have a myriad of different benefits for both wildlife and people. They stabilise the soil, generate oxygen, store carbon, play host to a spectacular variety of wildlife, provide us with raw materials and shelter, help us keep healthy and inspire our imaginations and our creativity.

The almost magical, mystical quality of woods makes them a great place for relaxation and recreation. A walk in the woods can give anyone a feeling of peace and tranquillity. Most of us have fond childhood memories of playing on or around trees. A world without trees and woods would be barren and intolerable.

Question 2 – What is your vision for the future of England's forests and woods?

The Woodland Trust wants to see a country rich in native woods and trees enjoyed and valued by everyone. To achieve this, England's forests, woods and trees must have:

Better protection. Currently there are no protective designations to prevent damage and loss for 85% of ancient woodland, our richest wildlife habitat and equivalent of the rainforest.

Sensitive restoration. The government has 35,000 hectares of planted ancient woods in its ownership – to restore all of them sensitively would be one of the most important improvements they could make to nature conservation in England.

Sustainable management. Both a thriving woodland conservation and also a productive forestry sector can sit firmly within a framework of sustainable forest and tree management, underpinned by national and international policies and agreements.

Ambitious woodland expansion. Only 9.9% of England is wooded, substantially less than the European Union average of 44%. The Woodland Trust urges that the area of native woodland in England should be doubled (against the 2010 published baseline), with an expansion target of 10,000 ha per annum for England. This would ensure we maximised the environmental, social and economic benefits which woodland can deliver.

Woods and people. Local communities need access to woods and encouragement to visit them for healthy recreation, and to take an active role in their management and ownership.

A continued role for the Public Forest Estate. The Woodland Trust supports the principle of a public forest estate (PFE). However, we don't support the *status quo* as the public benefits of the PFE are not reaching enough people – we want to see more benefits for more people.

The Forestry Commission needs to improve further on its performance to ensure its forests are exemplars of sensitive restoration, sustainable management, accessibility, recreation opportunities and community management. The Commission should have a commitment to driving forward woodland expansion, and a mandate to acquire new sites where woodland creation would produce most benefits.

Question 3 – What do you feel to be the benefits of forests and woods:

The notion of ecosystem services brings together the range of benefits which trees and forestry provides (or to put it simply, what forests do for us). This includes the ‘provisioning services’, in particular timber production, ‘regulating services’ such as water management and carbon storage, supporting services such as soil formation in woodlands; and ‘cultural services’ such as health (physical and mental), recreation and education.

The direct use and importance of trees and forests is recognised throughout the world; wood for fuel, building materials as well as non-wood products for human and animal feed, and medicines. In recent years, environmental and social benefits have been highlighted in addition to the direct economic benefits. As the United Nations report on ‘*The Economics of Ecosystem and Biodiversity*’ (TEEB) demonstrates, the importance of trees and forests is vastly greater than just timber supply: regulating the atmosphere, in climate and water cycles, soil conservation, and supporting a disproportionate amount of the globe’s terrestrial biodiversity.

The Read Report underlines the role of UK forests in combating climate change, and concludes we need to significantly and quickly expand England’s woodland (10,000ha pa in England), to help both mitigate and adapt to climate change. The UK National Ecosystem Assessment report notes that the expansion of woodlands has already contributed to both improved climate regulation, through greater carbon sequestration, and air quality, while at the same time increased timber supply. A full analysis of the many benefits of woodland and trees is contained within the Annex to this submission.

Unfortunately, the multiple health and recreation benefits in particular are not accessible to many people. 85% of the population does not have access to a wood within walking distance of their home.

Question 4 – suggestions of practical solutions and good practice which can be replicated more widely; & Question 5 – the priorities and challenges for policy about England’s forests and woods?

We have combined the answers to these two questions into a series of recommendations which the Woodland Trust would like the Independent Panel on Forestry to make. The order reflects the themes identified above, not the priority. The Annex to this response expands upon our views surrounding the themes, and the where, what and how of woodland expansion.

PROTECTION

1. The government should adopt a target of no loss of ancient woodland
2. The government should ensure that strong planning guidance for ancient woods and trees is in the final version of the new National Planning Policy Framework currently out for consultation. This means removing the caveat currently in place that overrides this protection if the benefits of development 'outweigh the loss'
3. Permitted development rights in woodland should be reviewed
4. The government needs to introduce a transparent, annually reported figure for forest loss alongside those it already reports on woodland creation
5. Planning authorities should be required to report to the Forestry Commission any development which damages or destroys ancient woodland and Trees of Special Interest

6. Local Wildlife Sites and Ancient Woodlands should receive increased planning and legal protection, as suggested by the Lawton Report
7. The Forestry Commission should be a statutory consultee on all planning applications affecting ancient woodland and should have powers to object as well as comment on them
8. Increase the fines for illegal felling, reduce the limit for felling without licenses to 5m³ per year and prosecute illegal woodland and tree fellers
9. Introduction of a “Trees of Special Interest” designation

PAWS RESTORATION

10. A government commitment to restore sensitively all 35,000 hectares of planted ancient woods in its ownership, with a transparent publically available reporting process on its performance
11. A government action plan to promote the restoration of planted ancient woods in private ownership
12. Forestry Commission grants improved further to help private woodland owners restore planted ancient woods
13. No planted ancient woodland sites in public ownership should be sold in future unless they are restored or an active restoration plan in place

SUSTAINABLE MANAGEMENT

14. More woodland managers entering certification, with better access to certification for small woodland owners
15. Introduction of a scheme of “Agreed Management Plans” that can replace felling licences, with an associated on-line public register
16. All local authorities to produce clear tree strategies, backed up with adequate funding and support for the management of trees and woods in urban areas
17. A cross-government and forestry sector action plan to increase timber and woodfuel production as a sustainable resource linked to credible certification such as FSC, and fiscal incentives

EXPANSION

18. The government should adopt a target of doubling the area of native woodland in the UK (against the 2010 published baseline), with a minimum rate of 10,000 Ha per year for England
19. Simplify grant schemes to make it easier for landowners and farmers to plant trees
20. Increase government grant aid for woodland creation, by rebalancing agricultural grants with forestry ones, targeted to areas where the multiple benefits will be most felt
21. Adopt and promote the Woodland Carbon Code, launched in July 2011, to encourage government departments, companies and individuals to invest in woodland creation
22. The government needs to provide innovative ways for private landowners to capture the value of delivering public goods, including tax incentives that encourage landowners to make long-term commitments to woodland creation
23. Development of green investment vehicles and social bonds
24. Any reform of the CAP and agri-environment schemes should do more to protect and expand tree cover in the landscape, as part of a wider programme to build up a resilient rural environment

25. Encouraging individual farmers to undertake woodland creation must recognise their motivations and the social significance of farming practice. Delivery must reflect the language and cultural/social ties which influence farming practice
26. Incentives for tree planting and woodland creation for the delivery of public goods must at least meet the opportunity costs of the landowner and ideally reflect social value of the goods or services
27. Sufficient advice and support must be available to landowners (money is not the only barrier to woodland expansion); all relevant agencies should have duty to promote and advise on woodland expansion

PEOPLE & ACCESS

28. Clear local and regional targets for increasing tree and woodland cover to ensure that everyone has access to woods within walking distance
29. The new National Planning Policy Framework should ensure local spatial planning reflects the need and importance for green space, trees and community woods in existing towns and cities, and in new housing developments (eg section 106 agreements & new conservation credits system should be used to meet the local and regional tree and woodland access targets)
30. Increase the level of access to existing woodland through innovative voluntary access schemes for private owners
31. More resources to encourage active and healthy lifestyles through visits to woods close to where people live, with environmental investment to address health and environmental justice issues
32. Recognition of the value for money in terms of preventative health care offered through the provision of high quality green space which incorporates trees and woods, eg around every hospital
33. Government to support a new community woodland advice service to inspire local communities to become involved in caring for their local woods
34. Inspire everyone to visit woods, for recreation and spiritual refreshment, via the exciting new website www.visitwoods.org.uk run by the Woodland Trust with 10 other partners.
35. Visiting woodland and tree planting is incorporated into Learning Outside the Classroom targets, and woods or trees provided around every new school
36. Changes in ownership or management of woodlands from the public forest estate or local authorities must maintain existing levels of access
37. Proceeds from changes in management or ownership of sites with little public benefit should be re-invested into woodland expansion where public benefit would be greatest
38. Local authorities prioritise woodland creation, and give local communities first refusal, on surplus public sector land
39. Maintain the Public Forest Estate, but as a dynamic estate that continually improves on delivering public benefit where it is needed most
40. The structure of the Forestry Commission should reflect the exemplar and dynamic PFE, whilst maintaining an effective regulatory and research role

Annex 1: Supplementary information

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References

1 Context

Since the Independent Panel on Forestry was established on 17 March 2011, several important reports and policy documents have been published which have an important bearing on the Panel's deliberations.

The National Forestry Inventory clarified the current position on woodland cover. Although an increase was noted, the previous inventory under-recorded small woods and this, combined with the inclusion of urban woods, accounts for the majority of the increase in total woodland area reported. Woodland covers just 13% of the UK, substantially less than the European average of 44%. Only 9.9% of England is wooded, despite cover increasing by 45% since 1945.

The UK National Ecosystem Assessment (UK NEA) is the first analysis of the UK's natural environment in terms of the benefits it provides to society and continuing economic prosperity. These are benefits are described as ecosystem services, and the report notes that woodlands are likely to deliver the greatest number of ecosystem services including carbon storage, recreation, timber and a contribution to water regulation. The assessment notes that the expansion of woodland has already contributed to both improved climate regulation (through greater carbon sequestration) and air quality, while at the same time increased timber supply.

The Read Report ('Combating Climate Change - a role for UK forests'), although published slightly earlier in 2009, is a compelling evaluation of the need to expand England's woodland, to help mitigate and adapt to climate change. But its suggestion of an enhanced woodland creation programme of 23,000 ha per year (10,000 ha in England) over the next 40 years has, sadly, not yet been adopted as policy. Indeed the figures from the Forestry Commission's Woodland Statistics published this year show a disappointing 8,600 ha of woodland planted last year in the UK, with only 2,500 ha of that in England.

The Natural Environment White Paper (NEWP) recognises trees and woods as cost-effective vehicles for delivery of ecosystem services, building on the clear findings of the National Ecosystem Assessment. The NEWP also acknowledges the Read Report's conclusions on the role of forestry in combating climate change, and suggests implementation of the latter could mean planting around 10,000ha of woodland per year in England. The NEWP asks the Panel to:

- Advise on an appropriate level of ambition for woodland creation
- Advise on an appropriate level of ambition for more active management
- Identify the mechanisms and market conditions needed
- Identify options for ensuring that everyone has the opportunity to experience and enjoy our woodland resource

2 The current extent of woodlands

The first release figures from the National Forest Inventory (NFI) contains initial provisional statistics for Great Britain for woodland area at 31 March 2010, and areas of new planting and observed woodland loss for 1989-90 to 2009-10.

The statistics show that England has low woodland cover (9.9%) in comparison to Europe (44%). This is despite a very large increase in the estimate of the area of small wood (0.5-2.0 ha). This is partly explained through the inclusion of urban woods, but is mainly due to errors in recording under the previous inventory.

Over the last decade upwards of 20-30,000 ha of woodland has been lost to wind farms and habitat restoration. The area of confirmed woodland loss is 498 hectares, but this will increase significantly when smaller areas of difference are examined.

The planting figures from the last planting season (taken from the Forestry Commissions grant schemes) show the total area planted in the UK was 8,600 ha, the majority of which (83%) was broadleaved trees. This is an increase from 2010's all-time low (5,400 ha, of which 4,800 ha was broadleaved) but still a long way from a recommended 15,000 ha of native woodland a year in the UK.

In England 2,500 ha was planted, all broadleaved, and this rate has recently remained largely static. In Scotland and Wales, where woodland creation targets and improved planting incentives have been introduced, planting rates have recovered from last year's dismal figures. This is a huge decline from the high of 29,000 ha planted in 1989.

3 Protection

Ancient woodland, usually defined as land that has been continually wooded since at least 1600AD, is the jewel in our woodland crown. They are our richest sites for wildlife supporting a huge range of species (including more threatened species than any other UK habitat). Yet less than 3% of the UK's land area is classified as ancient woodland, and the UK NEA notes that at least 80% of the UK's woodland is less than 100 years old.

Sadly, nearly 50 per cent of the ancient woodland that survived until the 1930s has since been lost or damaged by agriculture, development or planting by non-native conifers. According to the UK's Biodiversity Action Plan, in the last 100 years, 46 species of broadleaved woodland have become extinct in the UK.

In addition, most of ancient woodland we have left is fragmented, eight out of 10 ancient woods are less than 20 hectares (50 acres) in size and nearly 50 per cent of ancient woods are less than 5 hectares (13 acres). In addition, 85 per cent of the ancient woodland that remains has no protective legal designation through wildlife law or planning law.

The Lawton Report notes that most ancient woodland is within "Tier 2 sites" described as "sites of high biodiversity value which do not receive proper statutory protection". The report suggests in England there are 27,724 Ancient Woodland sites, using the Ancient Woodland Inventory to identify these sites which includes most ancient woodland, in particular all sites greater than 2 ha. This covers 354,583 ha (2.7% of England's land area). This includes 148,290 ha of ancient woodland that has been planted with conifers.

While 50.5% of ancient woodland is designated as Local Wildlife Sites - non-statutory sites identified by Local Wildlife Site partnerships, which are often led by local authorities and partnered by a range of local interests, this level of designation should get more protection under any revision of the planning system. The New Green Area Designation suggested by the NEWP should receive an appropriate level of protection.

In the last decade, ancient woodland equivalent to an area the size of Birmingham has come under threat from development - the Woodland Trust has worked on 351 cases affecting 866 individual woods. Unless urgent action is taken now to protect what little remains, we risk losing what's left of our precious ancient woodland and veteran trees.

A current example of loopholes in ancient woodland protection is the planning application to expand a quarry in Kent into Oaken Woods, a designated local wildlife site west of Maidstone. The effect will be a destruction of 33ha of irreplaceable ancient woodland. This expansion is not included in the adopted Local Minerals Plan for the area. Nonetheless, Kent County Council's Planning Committee concluded that the direct loss of this irreplaceable habitat and the negative impact on the local wildlife site were outweighed by the 'benefits of the project'. This is despite:

- National policy on minerals giving a presumption against loss of ancient woodland
- Objections from local groups and Natural England
- An independent expert analysing the need for this quarry and concluding there is none

The Secretary of State, Eric Pickles, is currently deciding whether to "call in" the application and review Kent County Council's decision.

The proposed route for the High Speed 2 (HS2) rail line between London and the north of England will destroy or irrevocably damage a minimum of 21 ancient woodlands along the route. No mitigation strategy put forward by Government can compensate for the loss from these 21 woods and also the further 27 ancient woodland sites, which the Trust has calculated could be directly or indirectly affected by the track's construction and use under the plans.

The felling licence system is not adequately protecting trees and woodlands, as the fines for illegal felling are not a sufficient deterrent, not enough breaches end up in prosecution, and the limit for felling without licences is too high. The felling licence system can be strengthened, with closer scrutiny of high-risk woodland owners, backed up by stronger enforcement of transgressions.

We believe that positive action is needed to conserve ancient trees and the distinctive wildlife they support. The best opportunities for conservation of the ecological value and social heritage of ancient trees is where they are a part of woodland ecosystems, especially where they occur in sufficient numbers elsewhere in wood pasture or parkland situations, and also in other priority habitats such as hedgerows and orchards. We suggest targeting action where there are known concentrations of ancient trees, where habitat continuity is threatened, and where opportunities to 'recruit' the ancient trees of the future through colonisation of maturing trees and deadwood, are greatest. We support the efforts of others to protect isolated single trees, and believe that a new designation of "Trees of Special Interest" will help protect ancient and veteran trees.

What we would like the panel to recommend

The government should adopt a target of no loss of ancient woodland

- The government should ensure that strong planning guidance for ancient woods and trees is in the final version of the new National Planning Policy Framework currently out for consultation. This means removing the caveat currently in place that overrides this protection if the benefits of development 'outweigh the loss'
- Permitted development rights in woodland should be reviewed
- The government needs to introduce a transparent, annually reported figure for forest loss alongside those it already reports on woodland creation
- Planning authorities should be required to report to the Forestry Commission any development which damages or destroys ancient woodland and Trees of Special Interest
- Local Wildlife Sites and Ancient Woodlands should receive increased planning and legal protection, as suggested by the Lawton Report
- The Forestry Commission should be a statutory consultee on all planning applications affecting ancient woodland and should have powers to object as well as comment on them
- Increase the fines for illegal felling, reduce the limit for felling without licenses to 5m³ per year and prosecute illegal woodland and tree fellers
- Introduction of a "Trees of Special Interest" designation

4 Restoration

As noted above, many tens of thousand hectares of ancient woods were planted with non-native conifers (mostly between the 1940s and 1980s). These planted ancient woodland sites are commonly referred to as PAWS. The restoration of these sites would be one of the most important contributions we could make to nature conservation in England. The longer this is delayed, the less likely it is to succeed, so we need to act now to take this unique opportunity.

PAWS can be planted with various tree species but non-native conifer plantations can have a particularly negative impact on the ecology of ancient woods, firstly through the process of establishing them, ploughing, ground clearance, fertiliser use; and subsequently from the effects of the shade and acidic leaf litter that they cast. However, research has shown that in nearly all PAWS, historic features and remnant habitats still survive in amongst the plantation crop. So although habitats have been damaged by these plantations, they have not been destroyed.

PAWS restoration must be done sensitively and can take a long time. The Trust commissioned research from Oxford Forest Institute in the early 2000's and recently tested its findings with a reassessment of the original survey sites. This most recent work is awaiting publication but endorses the original findings, that a gradual approach to the conservation and restoration is the best starting point for these scarce and valuable sites.

The window of opportunity for repairing the damage done to the ancient woodland habitat is limited, as on many sites conifers are ready to be harvested now. If they are felled and replaced with more conifers, the ancient woodland remnants that hung on through the first plantation cycle may not survive a second. Elsewhere lack of management or insensitive approaches pose further risks to remnant features. We need to take action to save what remains and carefully restore around it - and we need this process to start as soon as possible.

When it comes to the costs of implementing a sensitive restoration process, this will vary, being dependent on individual site factors. The long-term nature of restoration of key remnant features, and the currently un-quantified public benefits these provide, need to be set against the current commercial arguments for either rapid restoration or *status quo*. Timber production can still be maintained during gradual restoration of PAWS.

More information about the value of ancient woodland restoration, and also a guide for woodland owners and managers, is available from the Woodland Trust.

What we would like the panel to recommend

A government commitment to restore sensitively all 35,000 hectares of planted ancient woods in its ownership, with a transparent publically available reporting process on its performance

- A government action plan to promote the restoration of planted ancient woods in private ownership
- Forestry Commission grants improved further to help private woodland owners restore planted ancient woods
- No planted ancient woodland sites in public ownership should be sold in future unless they are restored or an active restoration plan in place

5 Sustainable Management

Sustainable forest management means landowners determining how to manage their woodland or forest today in such a way that similar, or greater, benefits, health and productivity are ensured in the future. The form that this management takes will vary according to their objectives – whether this is timber production, woodfuel, game management and sporting use, wildlife conservation, access and recreation, investment or, quite commonly, a combination of these.

There is a well established framework for ensuring that management of woods and forests is sustainable. At a UK level, the UK Forestry Standard - the Government's expression of sustainable forestry - sets out the economic, social and environmental criteria and standards for the sustainable management of forests. The Woodland Trust welcomed the introduction of the UK Forestry Standard and has been involved as a key stakeholder in its recent revision.

A separate system exists for independent certification of forest products through the UK Woodland Assurance Standard (UKWAS). This is an auditable, market-linked mechanism for ensuring sustainable management of the UK's forests. The Woodland Trust was a founding member of UKWAS and was first NGO to achieve UK-wide certification of its estate under FSC.

The Woodland Trust supports an increase in timber and woodfuel production as a sustainable resource linked to credible certification such as FSC (Forest Stewardship Council) and UKWAS, reducing the negative environmental impacts of long distance transport. Local wood production provides a way of reconnecting people with woodland, helps them value woods and trees and contributes to regional and local economies.

Approved Management Plans could replace some felling licences for low-risk sites, and a public register of licences and plans will help focus public reporting and subsequent enforcement.

The Woodland Trust has produced a document explaining its views on sustainable management of forests, woods and trees in the UK. It will continue to provide advice in the light of new research, such as the spread of ash as a canopy tree in ancient woodlands.

What we would like the panel to recommend

More woodland managers entering certification, with better access to certification for small woodland owners

- Introduction of a scheme of “Agreed Management Plans” that can replace felling licences, with an associated on-line public register
- All local authorities to produce clear tree strategies, backed up with adequate funding and support for the management of trees and woods in urban areas
- A cross-government and forestry sector action plan to increase timber and woodfuel production as a sustainable resource linked to credible certification such as FSC, and fiscal incentives

6 Ambitious expansion to deliver more of the benefits of woodlands and trees

The value of trees and forests

The direct use and importance of trees and forests is recognised throughout the world: wood for fuel, building materials and the feedstock to industry as well as non-wood products for human and animal feed, as fruits and seeds, oils and medicines.

Sustainable management and expansion of commercial forests is still important for the UK today. Domestic production has increased from an estimated 4% in the 1940s to 20% of UK consumption of timber, pulp and panel products today. In 2009, 8.5 million green tonnes of softwood was produced in the UK—approximately 60% of annual growth increment—and production is predicted to rise to 11–12 million tonnes in the 2020s. A total of 0.4 million tonnes of hardwood were produced from broadleaves—about 20% of annual growth increment.

But, as the United Nations report on ‘The Economics of Ecosystem and Biodiversity’ (TEEB) demonstrates, the importance of trees and forests is vastly greater than this: regulating the atmosphere, in climate and water cycles, soil conservation, and supporting a disproportionate amount of the globe’s terrestrial biodiversity. The Read Report evaluates the role of UK forests in combating climate change, and concludes we need to significantly and quickly expand England’s woodland, to help both mitigate and adapt to climate change.

Making the most of the raft of benefits (described more fully below) is hampered by the fact that we have so little woodland in England, both relative to other parts of the UK and also to Europe. More woods bring more benefits. The case is strong because woods don’t just provide single benefits – they bring a package of many environmental, social and economic benefits.

Ecosystem services

Historically forest expansion had timber production as its primary objective, but in recent years environmental and social benefits have been highlighted in addition to timber. There is now increasing emphasis on the threat posed by climate change and the need for delivery of ecosystem services.

The notion of ecosystem services brings together the range of benefits which trees and forestry provides. This includes the ‘provisioning services’, in particular timber production, ‘regulating services’ such as water management and carbon storage, “supporting services” such as soil formation in woodlands; and ‘cultural services’ such as health, recreation and education.

The urban forest

The importance of the urban forest is increasingly understood. Urban heat island effect, exacerbated by climate change, has significant health impacts. High temperature combined with poor air quality increases the risk of cardiovascular and respiratory disease and leads to significant increases in mortality and morbidity during hot weather.

Trees have a marked impact on urban heat island effect, providing shade from radiant heat, but also reducing ambient temperatures through evaporation from soil surfaces and transpiration

from leaves. Studies show that increasing tree cover by 10% can reduce the surface temperature of a city by between 3 and 4°C. This also reduces the need for air-conditioning which generates yet more CO₂.

Careful siting and species selection can also help improve air quality through adsorption of pollutants and reduction in ground level ozone. Blocks of trees and hedges can act as sound barriers, and large individual trees can reduce the impact of background noise.

Access to high quality greenspace, and trees in particular, has been shown to encourage healthy lifestyles and promote both physical and mental health. But according to the woodland access standard endorsed by government, 85 per cent of people in the UK have no access a wood over 2 ha within 500 m of their home. With an increased promotion of an outdoor active lifestyle, particularly for children, trees can also give shade and protection against ultraviolet radiation and skin cancer in the projected warmer and sunnier climate.

Increasing canopy cover also reduces the risk of surface water flooding - two thirds of all flooding during the 2007 floods was from surface water. Research at the University of Manchester is beginning to quantify this benefit. Results suggest a 10 per cent increase in canopy cover could decrease surface water run-off by 6 per cent.

Urban food growing is increasing in popularity – not just with policy-makers but with practitioners. Community orchards are springing up in cities, and fruit trees are an important part of “forest gardening”, even on roof gardens.

Many town and cities are poorly served by tree cover or have an ageing and deteriorating tree stock. Maintenance and expansion of the urban forest is essential to making towns and cities well adapted. The canopy spread of trees make them well suited to provide large areas of green cover, even in paved town centres.

Supporting productive farming

Food security has become a major driver for rural land use policy. Farming and forestry can be complimentary rather than competing activities. An increase in tree cover on farms can be shown to support productive farming; providing shade and shelter to improve animal welfare and increase food efficiency, reducing wind damage to crops, stabilising soils and reducing erosion, improving the efficiency of irrigation through reduced evaporation, providing an alternative source of on-farm energy, timber, and so on.

But it requires a re-evaluation of forestry in an agricultural landscape. Whilst we are familiar with the management of individual trees in urban areas, there has been less focus on the importance and value of scattered trees, shelter belts and hedgerow trees in the rural landscape. And yet these 'trees outside woods' represent a significant proportion of canopy cover, contributing both to productive agriculture and to ecosystem services such as water management, biodiversity and cultural landscapes.

Any consideration of forest expansion should recognise the importance in maintaining and increasing the canopy cover represented by trees outside woods, as well as those opportunities for more extensive forestry where agriculture is marginal. The Read Report suggested that a planting rate of 23k ha per year can be achieved without compromising agricultural productivity.

Trees and water

In addition to the role in reducing surface water flooding in urban areas, woodland creation could play a greater role in water management: regulating flow, increasing quality and providing part of a sustainable approach to flood management. River basin management plans recognise the role of woodland creation in protecting vulnerable soils from erosion, reducing overland water flows, diffuse pollution, warming and sedimentation of water courses.

Woodland creation can reduce pollution entering water courses by as much as 90% without putting additional strain on water resources. As an example, 99% of nitrates draining from arable fields in southern England during winter were retained by the first five metres of woodland planted with poplar trees – with tree buffers shown to also reduce sediment, phosphate and pesticide concentrations.

Opportunity mapping of the Lake District, undertaken by Forest Research and supported by the Woodland Trust, Natural England and Cumbria Woodlands, identified the potential for significant areas of woodland creation to reduce diffuse sedimentation and phosphate pollution. The report recognised that woodland creation could be a mix of larger commercial conifer plantations, native woodland, wood pasture and individual trees.

Carbon storage

Trees and woods have a valuable role to play in addressing the issue of climate change, but only as part of the solution. First and foremost in the transition to a low carbon economy is the need to reduce emissions at source, by avoiding unnecessary fossil fuel use where possible and increasing the efficiency of those essential services.

As trees grow they absorb carbon dioxide from the atmosphere and lock it away for decades or even centuries. Roughly one quarter of a tree's weight is carbon. Woodland soils, including those under hedges, can hold several times the amount of carbon in the trees themselves and continue to accumulate carbon year after year as leaf litter rots down.

Planting new native woods in the UK increases the size of the carbon "sink", helping to mitigate the effects of some of our greenhouse gas emissions. Wood is a renewable fuel source, for wood-burning stoves or as woodchip in power stations, replacing fossil fuel, and a renewable building product, replacing materials that have much higher CO₂ footprint, such as steel or concrete.

Biodiversity

Long-established woodlands are the most biodiverse terrestrial habitats, in the UK as well as worldwide. A quarter of all UK Biodiversity Action Plan priority species are associated with trees and woods. As new trees and woods mature, they also provide vital new habitats helping wildlife to adapt to inevitable climate change.

However, woodland expansion is not advocated at the expense of productive farmland and on other biodiverse habitats such as heathland, downland, wetlands etc. Woodland expansion is part of the increased connectivity and permeability of 'living landscapes' – where a vibrant matrix of land uses produces a more productive and wildlife-friendly rural environment. Landscapes need to be more 'treed' and should not necessarily mean 'wall to wall' trees.

This is just as true in the urban context, where brownfield sites have proved to have a high biodiversity value, particularly for invertebrates. The Green Corridors and Blue Ribbons of urban waterways, hedges, small green spaces and lines of trees provide vital stepping stones for wildlife – bats in particular are noted to follow lines of trees. The right trees in the right places can add value to this and fill in gaps.

Public goods

Many of the quantifiable benefits from expansion of tree and forest cover are not represented by the market. However there is a growing awareness of the need to acknowledge and measure the value of these services, and the cultural services of education and recreation.

Forest expansion should look for the opportunities for expansive areas of productive forest particularly on marginal agricultural land, but we should also consider the need to maintain and increase good quality tree cover elsewhere. New woodland creation should be represented by a mix of treed landscapes to meet a range of material, social and cultural functions that support society.

Trees and woods are vital to the health and wellbeing of people in the UK. There is a strong link between the quality of the natural environment where people live and their health and wellbeing. Growing evidence supports the assertion that urban greenspace and access to the wider countryside promote both physical and mental health.

Increasing tree and woodland cover can reduce the impacts of poor air quality, mitigate some of the effects of a warming climate, particularly in urban areas, and increase the opportunities for people to adopt a healthy lifestyle.

What we would like the panel to recommend

- The government should adopt a target of doubling the area of native woodland in the UK (against the 2010 published baseline), with a minimum rate of 10,000 Ha per year for England
- Simplify grant schemes to make it easier for landowners and farmers to plant trees
- Increase government grant aid for woodland creation, by rebalancing agricultural grants with forestry ones, targeted to areas where the multiple benefits will be most felt
- Adopt and promote the Woodland Carbon Code, launched in July 2011, to encourage government departments, companies and individuals to invest in woodland creation

7 How much more woodland and tree cover is needed?

Woodlands cover 9.9% of the England's land area, making the country one of the least wooded in Europe. The government-backed Woodland Access Standard aspires: That no person should live more than 500 metres from at least one area of accessible woodland of no less than 2 hectares in size; and that there should also be at least one area of accessible woodland of not less than 20 hectares within 4 kilometres (8 kilometres round trip) of people's homes.

The Woodland Trust urges that, in order to achieve these benefits and create space for nature, the area of native woodland in the UK should be doubled (against the 2010 published baseline). To achieve this we need to create around 10,000 hectares of woodland per annum in England, more than quadruple the current rate of planting.

This is achievable – this rate of planting was achieved very recently, and there is still plenty of land that can be more beneficially or productively managed for public benefits in the UK. The character and scale of any individual planting scheme is dependent on the benefits anticipated, and the nature of the location.

Where will the new trees go?

Key to understanding the need for more woodland in the UK is the locational dependency of the many of the ecosystem services. Whilst not true of all, many must be supplied where they are needed and consumed. In identifying the need for an increase in tree and forest cover we should be clear about the benefits and specific about where they are delivered. This will determine the character of new tree and woodland cover – there is no generic solution.

So although expanding the area of native woodland for biodiversity is best done adjacent to, or as stepping stones to, existing ancient woodland, this shouldn't preclude new woodland creation in areas with low tree cover.

The National Ecosystem Assessment recognises the importance of contact with nature for securing our long term health and happiness, while acknowledging that this is often undervalued. The Natural Environment White Paper reinforces the importance of green space and access to nature for peoples' health and wellbeing. The Public Health White Paper also recognises the importance of access to greenspace. 80 per cent of people live in urban areas, but less than 10 per cent of the population have access to local woodland within 500m of their home. Therefore to make the most of the health-based ecosystem services, the Government must include targets for woodland creation that will put them near to where people live.

What we would like the panel to recommend

- Clear regional targets for increasing tree and woodland cover to ensure that everyone has access to woods within walking distance
- The new National Planning Policy Framework should ensure local spatial planning reflects the need and importance for green space, trees and community woods in existing towns and cities, and in new housing developments (e.g. section 106 agreements, Community Infrastructure Levy and new conservation credits system should be used to meet the local and regional tree and woodland access targets)

8 Inspiration and engagement

The Woodland Trust believes that every child in the UK should have the chance to plant trees so that they have the positive experience of direct contact with nature. Positive and inspirational experience of woodland at a young age is a key step towards a long term environmental commitment.

Regular contact with woodland and special trees is a powerful factor influencing individuals to value woods and trees and their place within the environment. We need to reverse the loss of local woodland culture in the UK, and regain the acceptance of woods in and around towns still prevalent elsewhere in Europe.

Gaining understanding of trees and woodland and the issues facing them, provides a basis for deeper commitment and engagement. Enabling individuals to take action for woodland increases their support and interest and is an example of Big Society and Localism in action.

Trees and woods can inspire and delight almost everyone in some way or another – inspiration can be passive or active, it can be an individual or shared experience. Many people find their own route to engagement with woods, others need a helping hand. There is support and advice, such as the Community Woodland Network, but more advice will be needed to help communities take on the management and community ownership roles advocated by the Big Society and Localism agendas.

The recently reviewed Trees or Turf report indicates that, in many places, woods are a relatively simple to create and cheap to maintain type of green space. Woods are good places to walk, ride, play in and learn in – they are 3-dimensional, give a feeling of seclusion and stand up to visitor pressure well.

The Government's State of the Nation Report 2010 notes that poor local environments, as with homelessness, mental health and unemployment, "lead to entrenched, deep-seated disadvantage that can cut people off from opportunities to participate in the normal activities of society". England's forestry strategy recognises the value of access to woodland and sets out aspirations that more people should access woods for the benefits they provide. This includes a vision that woods within easy reach should be used for educational, social and community purposes, and an aim to make it easier for people to use and enjoy woodland.

The Woodland Trust's "Space for People" work has identified those areas where woods are most needed - where there are none, where there is no access, and the most deprived areas. There is substantial scope to increase woodland access further across the UK through creation of new accessible woodland, and by opening up existing woods to the public. The policy challenge is therefore one of constructing incentives and practical mechanisms to build upon the strategic intent expressed in the country forestry strategies and to accelerate the generally positive trends of the last decade.

We oppose any reduction in current levels of access, so future changes in ownership or management of woodlands from the public forest estate or local authorities must maintain existing levels of access.

The Woodland Trust wants to see more community woodland groups, especially those wishing to create woods. Community ownership offers a number of potential benefits, such as increased community confidence and cohesion, and building “natural capital” through creation or management of woods that can provide woodfuel or other ecosystem services.

Research by the Woodland Trust shows that existing community woodland groups in the UK demonstrate a wide variety of tenure and structure. Traditional models such as charities and trusts are unlikely to be sufficient to meet the needs of all community groups into the future given increasing competition for grants and charitable donations. There is a need to encompass and cater for the diversity of communities’ objectives in relation to woodland, and this will mean flexibility over tenure arrangements, finance and governance.

Other models are increasingly gaining currency in the wider world of community asset ownership and social enterprise, offering some potentially innovative solutions that could be applicable to community woodland groups. “Social investment” through, for example, issue of community shares, has been used successfully in other sectors.

One of the key challenges is capacity building – arming communities with the skills, knowledge and resources they need to take on woodland. Some help exists, but it is not necessarily all in one place or tailored to woodland groups. There is scope for existing NGOs, singly or in partnership, or for a new body, to fill a gap here.

What we would like the panel to recommend

Increase the level of access to existing woodland through innovative voluntary access schemes for private owners

- More resources to encourage active and healthy lifestyles through visits to woods close to where people live, with environmental investment to address health and environmental justice issues
- Recognition of the value for money in terms of preventative health care offered through the provision of high quality green space which incorporates trees and woods, eg around every hospital
- Government to support a new community woodland advice service to inspire local communities to become involved in caring for their local woods
- Inspire everyone to visit woods, for recreation and spiritual refreshment, via the exciting new website www.visitwoods.org.uk run by the Woodland Trust with 10 other partners.
- Visiting woodland and tree planting is incorporated into Learning Outside the Classroom targets, and woods or trees provided around every new school
- Changes in ownership or management of woodlands from the public forest estate or local authorities must maintain existing levels of access
- Proceeds from changes in management or ownership of sites with little public benefit should be re-invested into woodland expansion where public benefit would be greatest
- Local authorities prioritise woodland creation, and give local communities first refusal, on surplus public sector land

9 The future of the Public Forest Estate

The Woodland Trust supports the principle of a Public Forest Estate (PFE). However, we don't support the *status quo* as the public benefits of the PFE are not reaching enough people – we want to see more benefits for more people. Similarly we support the retention of the Forestry Commission as an expert body for advice and research, and manager of an exemplar woodland estate, but we believe it could take a stronger leadership role in forest protection, restoration, management and expansion.

Is it the right size or composition?

The size of the estate is not so much the issue as the location (see below). But there is a country-wide deficit of woodland in the right places to provide the full range of benefits and services which is a key driver of our aspirations to see native woodland cover doubled within a generation or so. While it is likely to be the cumulative efforts and decisions of thousands of individual landowners that eventually deliver this vision, the public forest estate also has its part to play in supporting this through some spectacular flagship initiatives.

The first such initiative should be a commitment to restore all 35,000 hectares of planted ancient woods in their ownership, with a transparent publically available reporting process on its performance.

Delivery of some forms of landscape-scale adaptation in the right place at an appropriate scale in some situations may be best achieved through securing public ownership. For example, new woodland to span bottle-necks in the 100 year flood envelope immediately upstream of major centres of population. So on balance the public forest estate should change its composition substantially through inspirational acquisitions balanced by divesting/leasing sites with little public benefit (see comments below on funding).

Where should it be?

The composition and location of the estate is a legacy of its historic purpose. A large part of the FC's estate consists of remote upland forests, often created on former semi-natural habitats consisting of fast-growing non-native trees. Sadly this history also led large areas of ASNW to be felled and replanted with non-native conifers in the lowlands as well, threatening their irreplaceable cultural and biodiversity values.

In recent years FC has only been able to add a small area of new land to its estate, so it has concentrated on converting its existing holdings to deliver further benefits. Kielder Forest for example is now a well structured productive forest, which also serves recreational purposes. But away from Kielder Water and other honey pot areas within the Forest, visitor numbers are very low.

Whilst the economic value of individual visits to these remote forests is relatively high, the social and environmental benefits only accrue to the few able to drive there. The majority of population are not benefitting from the PFE, so the overall value of the provision of woodland access near to where people live may be considerably greater. Such local provision can meet governments' targets for greater social equity in health and other environmental benefits.

There are some clear priorities for the public forest estate which have some very strong locational components and which should begin to dictate both what kinds of woods the estate should comprise and where these might be located. These include: helping to mitigate and adapt to climate change; helping meet the water quality objectives of the Water Framework Directive; creating new woods close to people through becoming part of the planning of new communities; enhancing the quality of life for residents of existing communities; and providing recreational facilities with attendant health and educational benefits. It should focus on conserving the very best of woodland biodiversity and wooded landscapes, including the restoration of planted ancient woodland sites (PAWS) and semi-natural open-ground habitats. Creation of new native woodland should be a priority because it delivers more public benefits in landscape, biodiversity and ecosystem service terms than non native woodland. Hence the distribution and location of the estate needs to change.

How should it be funded?

The Treasury currently puts constraints on how the FC both generates and spends its funds, ruling out many possibilities. Income from carefully selected disposals could be treated in a more imaginative way e.g. by creating a revolving fund to buy land, enhance its value as woodland and then sell on to sympathetic or safe purchasers that could improve the rate of return, or by creating endowment funds using capital from asset sales to generate annual revenue funds.

The model of selling cutting rights as happens in other countries should also be explored, as should the model of long term leases as recently proposed in Scotland. This idea failed because it was overly complicated - clear lessons can be learned from that experience. Given that forestry has performed reasonably well over the years as a long term financial investment, it could even be possible to create a new kind of public benefit share which could be bought by individuals, companies or other Government departments as long as benefits were fairly costed and delivered!.

In the same way that the Commission is now allowed to operate public private partnerships under the recent Regulatory Reform Order, it should be allowed to enter into arrangements with private interests on forestry management. While we appreciate this is not permitted under current legislation, we believe this is a major constraint on the Commission being able to take a more flexible and imaginative approach to cutting costs and creating additional income on its estates. Any savings, income or staff resource arising from changes in ownership or management of sites with little public benefit should be re-invested into woodland expansion in areas where public benefits are greatest

What we would like the panel to recommend

- Maintain the Public Forest Estate, but as a dynamic estate that continually improves on delivering public benefit where it is needed most
- The structure of the Forestry Commission should reflect the exemplar and dynamic PFE, whilst maintaining an effective regulatory and research role

10 The where, what and how of woodland expansion

Where should we be planting more woods and trees?

As mentioned previously, many of the ecosystem services must be supplied where they will deliver those benefits, so this will often determine the character of new tree and woodland cover.

Trees in the agricultural landscape

An increase in native tree cover, whether as woodland or more scattered trees in the landscape must help to and meet the needs of society, both in supporting agriculture and in delivering other ecosystem service benefits.

The Woodland Trust supports the need for a thriving, viable and environmentally sustainable agriculture industry in the UK, as one of the measures to support national food security. Productive agriculture relies on a stable and thriving ecosystem to provide the services for planned agricultural production. Woodland and other natural habitats are vital in securing those services.

In highly productive agricultural landscape (typically higher grade land in arable production) we envisage tree cover supporting agricultural production as outlined below – as shade and shelter, mitigating greenhouse gas emission, supplying on farm energy etc. In less productive landscapes, such as some upland areas suffering from overgrazing and soil erosion (and with no semi-natural habitats), or where there is an overriding social or environmental need, there will be opportunities for more expansive woodland cover to create a mosaic of different habitats. This will include the production of timber and fuelwood, but will also include a range of other ‘ecosystem’ services including:

- Managing water quality through reducing runoff from agricultural land polluting water course – the recently published River Basin Management Plans (RBMP) have provision for measures for woodland creation to reduce surface runoff
- Flood attenuation – research shows that woodland creation in the upper catchment and on strategic points within the floodplain can reduce peak river flows and reduce flood risk
- Soil conservation through a reduction in wind erosion and water erosion on vulnerable soils
- As a source of renewable energy
- To support the adaptation and movement of biodiversity in response to climate change

Trees and woods have the advantage of being able to deliver benefits in more than one category simultaneously. For instance, woodland as a buffer along watercourses can also support pollinating insects, and provide a source of woodfuel or livestock bedding.

Climate change in particular creates a need for urgent action. Trees and woods should be planted now to meet the need for adaptation of farms and support environmental services.

Shade and shelter

Benefits from shade on farms are primarily for livestock production; these relate to animal welfare and productivity. Rising summer temperatures and greater solar radiation will increase heat stress to both housed and outdoor livestock.

Trees provide direct shade, thus reducing the impact of direct solar radiation on livestock and livestock housing. They also have the capacity to reduce ambient air temperature through latent heat absorbed during transpiration from tree leaves.

In many cases shade can be achieved through allowing existing tree saplings within the hedgerows to develop. In other cases judicious tree planting may be necessary. The shade from trees is not necessarily in conflict with productivity of pasture, as the shelter effects can provide positive benefits by increasing water infiltration and reducing evapotranspiration loss from pasture. Shelter can also have a positive impact on pasture growth and has been shown to increase lambing percentage from sheep reared in sheltered pastures.

Windbreaks can improve the heat budgets of houses and buildings by 10- 40%. Well designed shelter around the farm house and buildings can reduce heating costs and lower farm CO₂ emissions.

Windbreaks are already extensively used for shelter of top fruit and might be used more extensively for other crops. An increase in the frequency of storms creates greater need for crop shelter to reduce physical damage, water loss through evapotranspiration and to encourage crop pollination. Wind related soil erosion can also be reduced on vulnerable soils (peaty and light soils in particular). Crop yields can be seen to increase as a result of use of windbreaks.

Native deciduous trees are ideal for windbreaks, providing sufficient porosity to slow the wind without creating turbulence on the lee side, as can be the case with more solid conifer windbreaks.

Greenhouse gas emissions

Agriculture is responsible for around 7% of UK GHG emissions. There are a range of measures which farmers can take to mitigate emissions, dependent on the farming system.

The planting of trees on farms, for whatever purpose, will have some benefit in sequestering atmospheric carbon. In addition shelter for housing and buildings can reduce energy consumption and CO₂ emissions.

The use of woodfuel as a renewable energy source both for farm use, and for sale will displace fossil fuel use and reduce the carbon footprint of the farm. Native tree species have the added benefit of supporting biodiversity, important in creating a diverse and resilient ecosystem to support agriculture, particularly pollinating insects.

Livestock units, particularly intensive poultry and pig unit, emit ammonia, a powerful GHG. Trees located close to livestock units are able to intercept a part of these emissions through dry deposition on the leaf and bark surfaces of the trees. Trees located around farm building and livestock units can, in addition to the benefits of shelter and shade, contribute towards the mitigation of air borne pollutants.

Increased soil erosion as a result of storm events could reduce soil fertility and damage watercourses. The use of buffer strips of trees alongside watercourses and contour planting of trees and hedges, can help reduce sedimentation and runoff of manure and fertiliser following heavy rainfall.

Trees provide the added advantage of offering shade to watercourses which reduces water temperature and improves oxygen levels in the watercourse to the benefit of fish and other wildlife. The improvement in water quality reduces downstream costs for water purification, but also has on site benefits from provision of habitat for pollinating insects, shelter and shade and the opportunity for fuelwood.

Opportunities for increasing urban tree cover

In urban areas, additional planting is increasingly being targeted towards areas that have poor social and environmental conditions – for instance Areas of Multiple Deprivation, and areas with low air quality, high ambient noise and poor access to natural greenspace.

In addition to opportunities to retrofit existing spaces, planning powers could be used to ensure that new developments contribute to the overall green infrastructure of urban areas. This includes both on-site measures for green infrastructure and tree planting, as well as planning gain through, for instance, section 106 agreements and the Community Infrastructure Levy.

Parks and other publicly owned open space

Consideration should be given to increase tree cover in existing publicly owned spaces, in particular within existing parks. Since such land falls within local authority control, and is largely unencumbered by services, this features amongst the easiest opportunities for tree planting. A reduction in the demand for sports pitches in public parks means that there are opportunities for creating small areas of woodland. The Trees or Turf report indicates that, in many circumstances, woods are simple to create on and cheaper to maintain than amenity grassland.

Highway trees and Street trees

Many highways are bordered by green verges where the incorporation of trees is relatively straight forward and inexpensive. Street trees i.e. those into paved streets, add to visual amenity and provide a direct intervention in reducing urban heat island effect, improving air quality and mitigating surface water flooding. The Mayor of London's street tree campaign provides an example of how this might be achieved.

Red Rose Community Forest in Manchester has pioneered a community based street tree planting campaign called 'Green Streets'. The project operates in some of the most challenging areas of Manchester using tree planting and other 'greening' projects as a means of tackling a range of social, health and economic issues.

In addition to representing a significant proportion of a city's tree stock, maintaining and planting trees in private gardens provides an opportunity for people to contribute towards a city-wide campaign to increase tree cover.

Other privately owned open space

This includes land owned by businesses and business landlords. Opportunities for increasing tree cover include additional planting in existing landscaped areas and the creation of new landscaped areas during periods of redevelopment.

It is also possible to retrofit areas with new trees, for instance in car parks and other hard surfaced areas – key contributors to surface water flooding. Targets for increased tree cover of this sort include large stores and supermarkets with car parking, industrial units and industrial estates.

Schools

Many of the secondary and primary schools have school grounds which could be used for tree planting. This includes both playing fields and school playgrounds.

Careful siting of trees in school grounds is needed to ensure good visibility, in order that children can be observed for safety reasons. However the increased shade and shelter afforded by trees can reduce the risk to children from sunburn and may help to reduce school heating bills through reduced energy use.

School playing fields and hard surface playgrounds can act as a source of runoff which contributes to surface water flooding; increasing tree cover would reduce this risk, particularly in relation to summer storms.

Tree planting within school grounds can be undertaken with the involvement of children, and thus provide educational benefits. It can also contribute to objectives to achieve Eco-school status and responds to the OFSTED target for opportunities for outdoor learning.

The rationale for native trees

Many of the benefits which come from trees and woodland are not dependent on whether or not they are native, such as providing shade, intercepting rain or reducing wind speed. In urban areas some species of non-native trees may be better suited to the conditions e.g. London plane's tolerance of pollution.

There are however, some functions which only native trees can provide or in which they perform better than non-native trees. These are in relation to;

- Biodiversity – whilst non-native trees have some biodiversity benefits, in general native and naturalised tree species are more likely to support more biodiversity, simply by virtue of the fact that they have coevolved with other non-tree native species
- Cultural landscape associations – whilst in some settings (such as historic parks) non-native species also have cultural associations, it is generally the case that in the wider countryside in particular, native trees contribute to landscape character
- Resilience – whilst there is fierce debate around this subject, in the short to medium term at least, native species, adapted to UK conditions are likely to be more resilient to climate change and disease than non-native species

Native trees are not simply better because they are native. They confer certain benefits, and landscape and biodiversity benefits in particular, that are not as well provided by other species. They should be a significant part of the mix of forest expansion.

How can expansion be encouraged?

Government policy, incentives, levers and interventions

Barriers to more tree planting and woodland creation exist at many levels from top line Government policy, mechanisms and incentives, institutional and structural barriers, practical difficulties with implementation, knowledge and awareness, and cultural norms.

Whilst Government policy increasingly reflects a desire to see more woodland in the UK (most recently through the NEA and NEWP), delivery is still falling short of aspirations, especially in England. An increase in the area planted in Scotland and, to a lesser extent Wales, in 2010/11 compared to the previous planting season, cannot yet be interpreted as a trend. However it may reflect a number of factors

- Both Scottish and Welsh administrations are committed to more woodland creation, and have set national targets
- Both Scotland and Wales have generous grant schemes. Our research on the economics of woodland creation show that from an investment point of view woodland is a much better bet in both those countries. The cumulative cash flows are positive from the start and therefore a landowner can reasonably expect not to have any capital outlay over their critical first five years.
- In Scotland in particular land prices are (relatively) low and opportunity costs are low
- Opportunity cost and land values in England are high
- Grants in England are low

There is a potential mismatch in the aspirations of policy documents such as NEWP and NEA, which seek to deliver public goods such as improved public health or better water quality, and individual landowners unable to capture the value of these public goods. More environmental investment under the banner of prevention is needed to address health and environmental justice issues. The Lawton Report recommends extending tax incentives to encourage landowners to make long-term commitments to the creation of new wildlife habitats that benefit ecological networks.

There are a number of investment vehicles the Green Investment Bank (GIB) could use to fund woodland creation and these include green bonds, green ISAs and a green investment debt fund. By creating these structures the GIB can provide the long term stability and framework needed in order to direct finance into those environmental projects that afford multiple environmental, social and economic benefits but struggle to access finance from commercial outlets due to the nature of the investment – often a low yield investment that repays over a longer term than its competitors. Tree planting fits this model

The new Woodland Carbon Code is a voluntary scheme administered by the Forestry Commission. It encourages a consistent approach to woodland carbon projects, and offers clarity and transparency to customers about the carbon savings that their contributions may realistically achieve. Compliance with the code means that Woodland Carbon projects:

- Are responsibly and sustainably managed to national forestry standards
- Use a consistent methodology for estimating of the amount of carbon that will be sequestered or locked up as a result of the tree planting
- Must be publicly registered and independently verified

- Meet transparent criteria and standards to ensure that real, additional carbon benefits are delivered

Farming is about more than food production - it plays a vital role in shaping our countryside. For the last 20 years subsidies under the CAP, agri-environment schemes and woodland grants have become available to farmers to do beneficial works for wildlife. Other changes to the CAP's support of food production in the last 5 years mean that it is now more about sustainable agriculture which increasingly provides a range of public goods.

We don't think these changes to the CAP have gone far enough and the Woodland Trust suggests further changes. These range from more inclusion of trees and woods in agri-environment schemes across the UK, right up to merging the funding structures at European level into one simple system. This system would support more sensitive farming, wildlife and build resilience into the countryside so it is better able to cope with the impacts of climate change.

What we would like the panel to recommend

- The government needs to provide innovative ways for private landowners to capture the value of delivering public goods, including tax incentives that encourage landowners to make long-term commitments to woodland creation
- Development of green investment vehicles and social bonds
- Any reform of the CAP and agri-environment schemes should do more to protect and expand tree cover in the landscape, as part of a wider programme to build up a resilient rural environment

Motivations of landowners

There are many types of landowners who might undertake tree planting and woodland creation, including local authorities and other public sector, companies and utilities. Nonetheless, most land suitable for tree planting and woodland creation in the UK is owned by individual farmers. The woodland Trust is continuing to work with many private land owners, so we know that the factors affecting willingness to undertake woodland creation include;

Level of grant funding and tax regime – from FC grants and via agri-environment schemes

Agricultural land values and agricultural profitability – the opportunity cost of woodland creation

Personal motivations and land management objectives

Lack of knowledge

Farming 'style' and cultural barriers

Food security - an increasing emphasis on the need for farmers to concentrate on the production of food to meet the expected need for greater food security. This year's drought is likely to increase this emphasis.

Other potential ‘non-agricultural’ land uses such as biofuels.

Tenancy agreements - land occupancy and tenure places restrictions on and affects attitudes to conservation action including tree planting.

Economic return from forestry – does the long term outlook for forestry investment provides incentive?

Decisions on land use are made by thousands of individuals satisfying their own motivations. Attempts to affect behaviour must find ways to build on, or at least not undermine, the positive aspirations of farmers. Therefore agencies need to promote woodland creation and sustainable management as part of developing productive farming, and as improving ancillary operations such as country sports.

What we would like the panel to recommend:

- Encouraging individual farmers to undertake woodland creation must recognise their motivations and the social significance of farming practice. Delivery must reflect the language and cultural/social ties which influence farming practice
- Incentives for tree planting and woodland creation for the delivery of public goods must at least meet the opportunity costs of the landowner and ideally reflect social value of the goods or services
- Sufficient advice and support must be available to landowners (money is not the only barrier to woodland expansion); all relevant agencies should have duty to promote and advise on woodland expansion

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