

Summary: Intervention & Options

Department /Agency: Forestry Commission	Title: Impact Assessment of "When to convert woodland to open habitats in England: government policy"	
Stage: Final proposal	Version: 7	Date: 10 March 2010
Related Publications: Policy process, review of evidence, consultation at website below. Strategy for England's, Trees, Woods and Forests (ETWF).		

Available to view or download at:

<http://www.forestry.gov.uk/england-openhabitats>

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What is the problem under consideration? Why is government intervention necessary?

Conversion of woods and forests to open habitats provides a potential means of delivering biodiversity benefits (through meeting Biodiversity Action Plan targets) but removal of woodland could entail loss of a range of public goods and can be perceived negatively by many people. We need a policy to enable effective decision making about removal or retention of woods and forests on potential open habitat to ensure that our landscapes optimise benefits to wildlife and people.

What are the policy objectives and the intended effects?

To develop a clear rationale to guide decisions about the removal (for open habitat restoration) or retention of woodland. The outcomes we want from the policy are: 1. resilient ecological communities; 2. forestry makes an increasing contribution to reducing greenhouse gas emissions, including through woodland expansion and maintaining area of productive woodland; 3. financially viable land management; 4. positive engagement by people in their local landscape.

What policy options have been considered? Please justify any preferred option.

A. Restore all potential open habitat: 4,000ha per year (pa) of woodland conversion; B. Deliver open habitat Habitat Action Plan (HAP) targets related to woodland: 2,100ha pa; C. Sustaining net forest area: 1,000ha pa; D. Current rate of conversion: 500ha pa; E. Designated sites only: 370ha pa All over 15 years. Option C is preferred because it provides a balance between the delivery of different public goods (including biodiversity and climate change mitigation and adaptation) that does not unduly compromise different Government policy objectives. Zero rate option n/a because it would not achieve the objectives.

When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects? 2015, next reporting round for England Biodiversity Strategy. Light touch review in 2012, scheduled refresh of the Delivery Plan for ETWF.

Ministerial Sign-off For final proposal / implementation stage Impact Assessments:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options

Signed by the responsible Minister:

Signed version retained by Forestry Commission

.....Date: 14 March 2010

Summary: Analysis & Evidence

Policy Option: A	Description: Restore all potential open habitat, 4000ha per year
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COSTS	ANNUAL COSTS		Description and scale of key monetised costs by 'main affected groups' 60-70% exchequer costs (RDPE, FC Public Forest Estate), 30-40% costs to landowners given licence to remove woodland. Conversion woods to open habitat: £4.7M. Management of open habitat (cumulative), average £3.0M. Admin. costs 20% conversion costs: £0.94M. Carbon costs £50.
	One-off (Transition)	Yrs	
	£		
	Average Annual Cost (excluding one-off)		
	£ -59M		Total Cost (PV) £-876M
Other key non-monetised costs by 'main affected groups' 38% decrease in the contribution of forestry to reducing carbon emissions that would otherwise be achieved by an additional 10,000ha of woodland creation.			

BENEFITS	ANNUAL BENEFITS		Description and scale of key monetised benefits by 'main affected groups'
	One-off	Yrs	
	£		
	Average Annual Benefit (excluding one-off)		
	£		Total Benefit (PV) £
Other key non-monetised benefits by 'main affected groups' Key benefits are to biodiversity. Robust evidence on value of net benefits is not available but value likely to be significant. Policy will contribute 123% of relevant HAP targets, 185% of the key lowland heathland expansion target.			

Key Assumptions/Sensitivities/Risks Assumptions: linear rate of conversion of open habitat, amount of each habitat converted is proportional to total potential habitat under woodland. Risk: acceleration in rate of woodland expansion is not achieved leads to negative impact on outcome 2 and on timber industry / require longer-term progress on open habitats.

Price Base Year 2009	Time Period Years 15	Net Benefit Range (NPV) £	NET BENEFIT (NPV Best estimate) £
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What is the geographic coverage of the policy/option?		England		
On what date will the policy be implemented?		March 2010		
Which organisation(s) will enforce the policy?		NE and FC		
What is the total annual cost of enforcement for these organisations?		£ 0.15M		
Does enforcement comply with Hampton principles?		Yes		
Will implementation go beyond minimum EU requirements?		No		
What is the value of the proposed offsetting measure per year?		£ n/a		
What is the value of changes in greenhouse gas emissions?		£ -50M		
Will the proposal have a significant impact on competition?		No		
Annual cost (£-£) per organisation (excluding one-off)	Micro	Small	Medium	Large
	n/a	n/a	n/a	n/a
Are any of these organisations exempt?	Yes/No	Yes/No	N/A	N/A

Impact on Admin Burdens Baseline (2005 Prices)				(Increase - Decrease)
Increase	£ 0	Decrease	£ 0	Net £ 0

Key: Annual costs and benefits: Constant Prices (Net) Present Value

Summary: Analysis & Evidence

Policy Option: B	Description: Deliver Habitat Action Plan targets, 2,000ha conversion of woodland to open habitat per year
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COSTS	ANNUAL COSTS	Description and scale of key monetised costs by 'main affected groups' 60-70% exchequer costs (RDPE, FC Public Forest Estate), 30-40% costs to landowners given licence to remove woodland . Conversion woods to open habitat: £2.3M. Management of open habitat (cumulative), average £1.5 M. Admin. costs 20% conversion costs: £0.46M. Carbon costs £21M.				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; padding: 5px;">One-off (Transition)</td> <td style="width: 30%; text-align: center; padding: 5px;">Yrs</td> </tr> <tr> <td style="padding: 5px;">£</td> <td style="padding: 5px;"></td> </tr> </table>		One-off (Transition)	Yrs	£	
	One-off (Transition)		Yrs			
	£					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; padding: 5px;">Average Annual Cost (excluding one-off)</td> </tr> <tr> <td style="padding: 5px;">£ -25M</td> </tr> </table>	Average Annual Cost (excluding one-off)	£ -25M				
Average Annual Cost (excluding one-off)						
£ -25M						
Total Cost (PV)		£ -391M				
Other key non-monetised costs by 'main affected groups' 23% decrease in the contribution of forestry to reducing carbon emissions that would otherwise be achieved by an additional 10,000ha of woodland creation.						

BENEFITS	ANNUAL BENEFITS	Description and scale of key monetised benefits by 'main affected groups'				
	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; padding: 5px;">One-off</td> <td style="width: 30%; text-align: center; padding: 5px;">Yrs</td> </tr> <tr> <td style="padding: 5px;">£</td> <td style="padding: 5px;"></td> </tr> </table>		One-off	Yrs	£	
	One-off		Yrs			
	£					
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 70%; padding: 5px;">Average Annual Benefit (excluding one-off)</td> </tr> <tr> <td style="padding: 5px;">£</td> </tr> </table>	Average Annual Benefit (excluding one-off)	£				
Average Annual Benefit (excluding one-off)						
£						
Total Benefit (PV)		£				
Other key non-monetised benefits by 'main affected groups' Key benefits are to biodiversity. Robust evidence on value of net benefits is not available but value likely to be significant. Policy will contribute 66% of relevant HAP targets, 99% of the key lowland heathland expansion target.						

Key Assumptions/Sensitivities/Risks Assumptions: linear rate of conversion of open habitat, amount of each habitat converted is proportional to total potential habitat under woodland. Risk: acceleration in rate of woodland expansion is not achieved leads to negative impact on outcome 2 and on timber industry / require longer-term progress on open habitats.

Price Base Year 2009	Time Period Years 15	Net Benefit Range (NPV) £	NET BENEFIT (NPV Best estimate) £
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What is the geographic coverage of the policy/option?	England			
On what date will the policy be implemented?	March 2010			
Which organisation(s) will enforce the policy?	NE and FC			
What is the total annual cost of enforcement for these organisations?	£ 0.15M			
Does enforcement comply with Hampton principles?	Yes			
Will implementation go beyond minimum EU requirements?	No			
What is the value of the proposed offsetting measure per year?	£ n/a			
What is the value of changes in greenhouse gas emissions?	£ -21M			
Will the proposal have a significant impact on competition?	No			
Annual cost (£-£) per organisation (excluding one-off)	Micro n/a	Small n/a	Medium n/a	Large n/a
Are any of these organisations exempt?	Yes/No	Yes/No	N/A	N/A

Impact on Admin Burdens Baseline (2005 Prices)				(Increase - Decrease)
Increase	£ 0	Decrease	£ 0	Net £ 0

Key: Annual costs and benefits: Constant Prices (Net) Present Value

Summary: Analysis & Evidence

Policy Option: C	Description: Sustain net forest area, 1000 ha of conversion of woodland to open habitat per year (preferred option)
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COSTS	ANNUAL COSTS	Description and scale of key monetised costs by 'main affected groups' 60-70% exchequer costs (RDPE, FC Public Forest Estate), 30-40% costs to landowners given licence to remove woodland Conversion woods to open habitat: £1.2M. Management of open habitat (cumulative), average £0.87M. Admin. costs 20% conversion costs: £0.24M. Carbon costs £7.1M.	
	One-off (Transition) Yrs		
	£		
	Average Annual Cost (excluding one-off)		
£ -9.4M		Total Cost (PV)	£ -140M
Other key non-monetised costs by 'main affected groups' 11% decrease in the contribution of forestry to reducing carbon emissions that would otherwise be achieved by an additional 10,000ha of woodland creation.			

BENEFITS	ANNUAL BENEFITS	Description and scale of key monetised benefits by 'main affected groups'	
	One-off Yrs		
	£		
	Average Annual Benefit (excluding one-off)		
£		Total Benefit (PV)	£
Other key non-monetised benefits by 'main affected groups' Key benefits are to biodiversity. Robust evidence on value of net benefits is not available but value likely to be significant. Policy will contribute 33% of relevant HAP targets, 50% of the key lowland heathland expansion target.			

Key Assumptions/Sensitivities/Risks Assumptions: linear rate of conversion of open habitat, amount of each habitat converted is proportional to total potential habitat under woodland. Risk: acceleration in rate of woodland expansion is not achieved leads to negative impact on outcome 2 and on timber industry / require longer-term progress on open habitats.

Price Base Year	Time Period Years	Net Benefit Range (NPV) £	NET BENEFIT (NPV Best estimate) £
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What is the geographic coverage of the policy/option?	England			
On what date will the policy be implemented?	March 2010			
Which organisation(s) will enforce the policy?	NE and FC			
What is the total annual cost of enforcement for these organisations?	£ 0.15M			
Does enforcement comply with Hampton principles?	Yes			
Will implementation go beyond minimum EU requirements?	No			
What is the value of the proposed offsetting measure per year?	£ n/a			
What is the value of changes in greenhouse gas emissions?	£ -7.1M			
Will the proposal have a significant impact on competition?	No			
Annual cost (£-£) per organisation (excluding one-off)	Micro n/a	Small n/a	Medium n/a	Large n/a
Are any of these organisations exempt?	Yes/No	Yes/No	N/A	N/A

Impact on Admin Burdens Baseline (2005 Prices)				(Increase - Decrease)
Increase	£ 0	Decrease	£ 0	Net £ 0

Key: Annual costs and benefits: Constant Prices (Net) Present Value

Summary: Analysis & Evidence

Policy Option: D	Description: Current rate of conversion, 500ha conversion of woodland to open habitat per year
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COSTS	ANNUAL COSTS	Description and scale of key monetised costs by 'main affected groups' 60-70% exchequer costs (RDPE, FC Public Forest Estate), 30-40% costs to landowners given licence to remove woodland Conversion woods to open habitat: £0.58M. Management of open habitat (cumulative), average £0.37M. Admin. costs 20% conversion costs: £0.074M. Carbon costs £0.		
	One-off (Transition) Yrs			
	£			
	Average Annual Cost (excluding one-off)			
	£ -1.0M	Total Cost (PV)	£ -12M	
Other key non-monetised costs by 'main affected groups' 6% decrease in the contribution of forestry to reducing carbon emissions that would otherwise be achieved by an additional 10,000ha of woodland creation.				

BENEFITS	ANNUAL BENEFITS	Description and scale of key monetised benefits by 'main affected groups'		
	One-off Yrs			
	£			
	Average Annual Benefit (excluding one-off)			
	£	Total Benefit (PV)	£	
Other key non-monetised benefits by 'main affected groups' Key benefits are to biodiversity. Robust evidence on value of net benefits is not available but value likely to be significant. Policy will contribute 17% of relevant HAP targets, 25% of the key lowland heathland expansion target.				

Key Assumptions/Sensitivities/Risks Assumptions: linear rate of conversion of open habitat, amount of each habitat converted is proportional to total potential habitat under woodland. Risk: acceleration in rate of woodland expansion is not achieved leads to negative impact on outcome 2 and on timber industry / require longer-term progress on open habitats.

Price Base Year 2009	Time Period Years 15	Net Benefit Range (NPV) £	NET BENEFIT (NPV Best estimate) £
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What is the geographic coverage of the policy/option?	England			
On what date will the policy be implemented?	March 2010			
Which organisation(s) will enforce the policy?	NE and FC			
What is the total annual cost of enforcement for these organisations?	£ 0.15M			
Does enforcement comply with Hampton principles?	Yes			
Will implementation go beyond minimum EU requirements?	No			
What is the value of the proposed offsetting measure per year?	£ n/a			
What is the value of changes in greenhouse gas emissions?	£ 0			
Will the proposal have a significant impact on competition?	No			
Annual cost (£-£) per organisation (excluding one-off)	Micro n/a	Small n/a	Medium n/a	Large n/a
Are any of these organisations exempt?	Yes/No	Yes/No	N/A	N/A

Impact on Admin Burdens Baseline (2005 Prices)				(Increase - Decrease)
Increase	£ 0	Decrease	£ 0	Net £ 0

Key: Annual costs and benefits: Constant Prices (Net) Present Value

Summary: Analysis & Evidence

Policy Option: E	Description: Designated sites only, 370ha conversion of woodland to open habitat per year
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COSTS	ANNUAL COSTS	Description and scale of key monetised costs by 'main affected groups' 60-70% exchequer costs (RDPE, FC Public Forest Estate), 30-40% costs to landowners given licence to remove woodland . Conversion woods to open habitat: £0.43M. Management of open habitat: (cumulative), average £0.27M. Admin. costs 20% conversion costs: £0.054M.
	One-off (Transition) Yrs	
	Average Annual Cost (excluding one-off)	
	£ -0.75M	
		Total Cost (PV) £ -9.2M
Other key non-monetised costs by 'main affected groups' 4% decrease in the contribution of forestry to reducing carbon emissions that would otherwise be achieved by an additional 10,000ha of woodland creation.		

BENEFITS	ANNUAL BENEFITS	Description and scale of key monetised benefits by 'main affected groups' Carbon benefits: £1.9M
	One-off Yrs	
	Average Annual Benefit (excluding one-off)	
	£ 1.9M	
		Total Benefit (PV) £ 30M
Other key non-monetised benefits by 'main affected groups' Key benefits are to biodiversity. Robust evidence on value of net benefits is not available but value likely to be significant. Policy will contribute 12% of relevant HAP targets, 19% of the key lowland heathland expansion target. Carbon benefits are due to reduction against baseline of 500ha per year of woodland removal.		

Key Assumptions/Sensitivities/Risks Assumptions: linear rate of conversion of open habitat, amount of each habitat converted is proportional to total potential habitat under woodland. Risk: acceleration in rate of woodland expansion is not achieved leads to negative impact on outcome 2 and on timber industry / require longer-term progress on open habitats.

Price Base Year 2009	Time Period Years 15	Net Benefit Range (NPV) £	NET BENEFIT (NPV Best estimate) £
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What is the geographic coverage of the policy/option?	England			
On what date will the policy be implemented?	March 2010			
Which organisation(s) will enforce the policy?	NE and FC			
What is the total annual cost of enforcement for these organisations?	£ 0.15M			
Does enforcement comply with Hampton principles?	Yes			
Will implementation go beyond minimum EU requirements?	No			
What is the value of the proposed offsetting measure per year?	£ n/a			
What is the value of changes in greenhouse gas emissions?	£ 1.9M			
Will the proposal have a significant impact on competition?	No			
Annual cost (£-£) per organisation (excluding one-off)	Micro n/a	Small n/a	Medium n/a	Large n/a
Are any of these organisations exempt?	Yes/No	Yes/No	N/A	N/A

Impact on Admin Burdens Baseline (2005 Prices)				(Increase - Decrease)
Increase	£ 0	Decrease	£ 0	Net £ 0

Key: Annual costs and benefits: Constant Prices (Net) Present Value

Evidence Base (for summary sheets)

[Use this space (with a recommended maximum of 30 pages) to set out the evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Ensure that the information is organised in such a way as to explain clearly the summary information on the preceding pages of this form.]

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Annex 1: Equality Impact Assessment

Annex 2: Strategic Environmental Assessment and Open Habitats Policy

1 Introduction

This final policy proposal has been produced through a policy development process led by Forestry Commission England (FC) working with Department for Environment Food and Rural Affairs (Defra) and Natural England (NE). It included a review of evidence and a public consultation. The process has been conducted in an open and transparent manner, involving stakeholders, and taking an outcomes and evidence based approach. This final proposal reflects ministerial steers received at intermediate steps and input from Department for Energy and Climate Change.

During the 20th Century large areas of what are now seen as priority open habitats, were planted with conifers or colonised by birch and pine. These woods and forests have public benefits, but there is interest in removing the trees and restoring them to open habitats.

The key issues are:

- (i) interaction between restoring and expanding open habitats to contribute to biodiversity targets and the potential contribution of woods and forests to moving to a low carbon economy, including on woodland creation aspirations;
- (ii) impact on public finances due to increasing costs of maintenance;
- (iii) desirability of conversion to strictly defined habitats and the role of shifting mixtures of open habitat and woodland; and

- (iv) need for local participation to avoid local conflict and local disengagement leading to loss of quality of life benefits from amenity, landscape and heritage.

Of these, i and ii can be resolved by decisions about options for scale and pace of conversion of woodland whereas iii and iv can be resolved by the approach to implementation. This impact assessment therefore covers directly i and ii.

1.1 Developments since the consultation stage impact assessment

In the consultation stage impact assessment ([http://www.forestry.gov.uk/pdf/eng-open-habs-impactassement.pdf/\\$FILE/eng-open-habs-impactassement.pdf](http://www.forestry.gov.uk/pdf/eng-open-habs-impactassement.pdf/$FILE/eng-open-habs-impactassement.pdf)) several options were presented based on scenarios for scale and pace of conversion of woodland to open habitat. The baseline against which these options were assessed was a continued low level of woodland creation. Effectively, the Impact Assessment tested the extent to which conversion of woodland to open habitat would have contributed more or less to the decline in the carbon abatement potential of woodland in England.

Since then, the policy arena has changed. There is now a recognition of the potential for accelerated woodland expansion to reduce carbon emissions. The UK Low Carbon Transition Plan sets out how 10,000ha of additional woodland creation per year for 15 years could make a significant contribution to reducing carbon emissions. This has significant implications for carbon impacts.

The approach to implementation of this policy (see below) sets out a mechanism whereby the rate of woodland removal is balanced against achieving aspirations for *increased* rates of woodland creation. This increased rate of woodland expansion is to be promoted by implementation mechanisms not directly related to this policy (compensatory planting will be required on a site by site basis only in limited circumstances). Therefore, when monetising carbon impact it is appropriate to set the baseline as the current rate of woodland removal for open habitats, estimated at 500ha per year. The impact of woodland removal on Kyoto reporting is also assessed along with the extent to which conversion of woodland would erode the ability of woodland creation to increase the abatement potential of woodland in England, presented as a non-monetised cost.

It is not appropriate to include the costs of woodland creation in this assessment because the increased rate of woodland expansion is to be achieved by mechanisms not related to this policy. The balancing mechanism relies on periodic assessments of progress of both woodland and open habitats expansion and adjustments to a framework for site by site decision making in accordance with relative progress as opposed to linking woodland removal directly to compensatory planting (except in limited circumstances).

This balancing mechanism, assessing progress on open habitats using the Biodiversity Action Plan Reporting System and on woodland expansion using the National Forest Inventory (both report every two years) will enable safeguards to be set to prevent net deforestation in England.

1.2 Policy context.

The Government's Strategy for England's, Trees, Woods and Forests and the England Biodiversity Strategy set out a commitment to develop open habitats policy.

Biodiversity strategy: Action to conserve biodiversity is a key element of the government's Public Service Agreement 28 on securing a healthy natural environment. 2010 is International Year of Biodiversity, with the tenth Conference of the Parties to the Convention on Biological Diversity taking place in October to review achievement of the global target to substantially reduce biodiversity loss by 2010. This year, the European Commission will also be reporting on progress towards its 2010 target of halting biodiversity loss across Member States. The general picture is one of recovery in many groups of species but continuing worrying decline in some specialists and continuing vulnerability across the board.¹ Work on biodiversity is set out in the England Biodiversity Strategy.

Low Carbon Transition Plan (and Read report): In July 2009, the Government published the UK Low Carbon Transition Plan (LCTP), which included a drive for a major expansion in woodland cover to help meet objectives to mitigate climate change and provide other benefits. The Read Report² in November 2009 highlighted the carbon benefits of woodland expansion. It also noted that the capacity of UK woodland to sequester carbon is declining and will decline further without more woodland creation.

Targets: Neither the England Biodiversity Strategy nor the LCTP contain direct Ministerial commitments to open habitat or woodland creation targets. Ministerial support in both cases is expressed in aspirational terms, with Government playing its part alongside others.

2 Summary of options considered.

Five potential scenarios are set out in Table 1, with their implications for key habitat, carbon and financial indicators. These options were identified on the basis of making progress on key Government policy objectives for both open habitats and woodland creation, assessment of what is practical to implement, and following stakeholder engagement.

The key messages from each scenario are:

A and B - "Restore all the potential open habitat" - 4000 ha per year, or "Deliver HAP Targets Related to Woodland" - 2100 ha per year.

These would both make a very significant contribution to delivering habitat targets from all sources. They would, however, be very challenging to deliver, with public support, and ensure the quality of restoration. They could also cause net deforestation in the short term, and would significantly increase public expenditure on land management.

C - "Sustaining net forest area" - 1000 ha per year.

¹ Natural England (2008) State of the Natural Environment

² The Read Report "Combating Climate Change: A Role for UK Forests"

This would provide a significant contribution to habitat targets, doubling the current rate, but still enabling the conversion to high quality open habitats to be secured. A major increase in woodland cover would be assured, together with a major improvement in carbon abatement if woodland expansion rates increase. Additional land management costs outside the Public Forest Estate could be absorbed within the RDPE programme budget

D and E - "Current rate of conversion" - 500 ha per year, or "Designated sites only" - 370 ha per year.

These would make a limited contribution to HAP targets, but enable woodland expansion aspirations to be achieved. They would raise no new issues for public finance.

Table 1: Scenarios for a policy on converting woodland to open habitats and impact on key indicators.

Scenario		Indicator and impact			
Name	Rate (ha per year) over 15 years ³	Progress on targets for open habitats (% of Habitat Action Plan (HAP) targets achieved by conversion from woodland).		Impact on carbon sequestration benefits of woodland expansion. (% change in cumulative abatement by 2050 under LCTP assuming additional woodland creation of 10,000ha per year (gross)).	Changes in maintenance cost. (Additional cost per year of maintaining open habitat at year 15) ⁴
		Aggregate of all relevant HAPs	Lowland heathland only		
A Restore all the potential habitat.	4,000	123%	185%	-38% ⁵	£4.4M
B. Deliver HAP targets	2,000	66%	99%	-23%	£2.2M
C. Sustain net forest area	1,000 ⁶	33%	50%	-11%	£1.1M
D. Current rate of conversion	500	17%	25%	-6%	£0.6M
E. Designated sites only	370	12%	19%	-4%	£0.4M

³ The policy is assumed to operate over 15 years to reflect timescales for the Strategy for England's, Trees, Woods and Forests, England Biodiversity Strategy, and the UK Low Carbon Transition Plan. However, carbon impacts have been assessed over 100 years to fit with the carbon benefits of woodland.

⁴ Used for clarity rather than Net Present Value over 15 years.

⁵ i.e.: Provided LCTP aspirations for woodland expansion are achieved, under this scenario there would be 38% less carbon abatement by woodland in 2050 than if there was no woodland removal for open habitats.

⁶ 1,000ha is an estimate of rates of loss for open habitats that avoid a risk of net deforestation when this loss is added to losses due to other reasons.

3 Summary of policy proposal.

Option C is preferred because it provides a balance between the delivery of different public goods (including biodiversity and climate change mitigation and adaptation) that does not unduly compromise Government policy objectives. It would provide a significant contribution to habitat targets, doubling the current rate, but still enabling conversion to high quality open habitats to be secured. The scale of woodland removal combined with the mechanism to balance woodland removal with increases in woodland expansion achieved by other policies will ensure that any negative impact on woodland's contribution to a low carbon economy is minimised. Additional land management costs outside the Public Forest Estate could be absorbed within the RDPE programme budget. This together with the preferred approach to implementation provides a policy that can be summarised as follows (extract from the proposed policy document):

“..... Our [Forestry Commission] ambition is to generate landscapes that provide benefits for people and wildlife for the 21st Century. We will achieve this through land-use change using conversion of woodland to open habitat in tandem with woodland creation.

The aims of this policy are to:

- generate biodiverse landscapes of open habitat and woodland that provide long-term benefits to people and wildlife;
- make sure that conversion of woodland results in more open habitat which makes a significant contribution to biodiversity objectives; and
- minimise any negative impacts on the ability of woodland and forestry to increasingly contribute towards a low-carbon economy.

The outcomes we want from the policy are:

- resilient ecological communities, where wildlife, including open habitat species, is able to cope with changes so that biodiversity is maintained and enhanced;
- woodland and forestry that make an increased contribution to reducing greenhouse gas emissions, through higher rates of woodland expansion and by maintaining the area of commercially productive woodland;
- land management which is financially viable in the long-term so that resilient biodiverse landscapes can be maintained and the call on public funding is within manageable limits; and
- people's engagement with the landscape they use, particularly their local landscape, is maintained or enhanced.

To make progress on all these aspects we will apply the following principles:

- **the right tree in the right place;**
- **the right habitat in the right place; and**
- **the right change at the right pace.**

We will deliver this policy using the following elements.

- **A framework** for site-by-site decision-making based on converting woodland to open habitat where it will consolidate current high quality habitat, or where it will significantly enhance key species and habitats.
- **A mechanism** for balancing woodland removal and woodland creation based on making reasonable progress on both enhancing open habitats to benefit wildlife and creating woodland to help reduce greenhouse gases.

- We estimate that the a level of ambition for land-use change that represents reasonable progress on both, is a rate of conversion of woodland to open habitat of about 1,000 ha per year, if the rate of woodland expansion also accelerates. An increase in the rate of conversion of woodland to open habitat will therefore start slowly and progress towards 1,000 ha per year with an accelerating rate of woodland expansion.
- The mechanism will include compensatory planting in certain circumstances, and maintaining the total area of commercially productive woodland, such as conifers.
- **A process** for ensuring local involvement in decision-making from the early stages of any proposals for conversion of woodland to open habitat.
- **Standards** for conversion and for managing habitats created or woodland retained to:
 - minimise negative impacts on aspects such as landscape, access, and soils;
 - make sure woodland is managed so it can still be converted at a later date if needed; and
 - provide information on where to create permanent open habitat, and where more dynamic mosaics of woodland and open habitat are desirable.
- **Evaluate** progress towards the outcomes we want. We will do this with our stakeholders. We will assess progress using indicators of outcomes such as the amount of open habitat restored, or expanded, and changes in the area of productive woodland.

In collaboration with Natural England and working with others, we will evolve the delivery mechanisms available to government to implement the policy. Key delivery mechanisms are:

- regulation;
- grants; and
- publicly owned land.

We will publish a strategy for open habitats on the Forestry Commission public forest estate.

We will review this policy in 2015.

4 Evidence.

A range of factors were taken into account when developing this policy arising from all the government's objectives for England's woods and forests. The evidence about the potential impact of restoring and expanding open habitats from woods and forests on these factors was collated. Reports as follows are available at www.forestry.gov.uk/england-openhabitats:

- Forestry Commission (2008) *Restoration of open habitats from woods and forests in England: developing Government policy: evidence*, including a workshop reviewing the evidence; the consultation stage policy impact analysis;
- a public consultation on policy proposals was run in March to June 2009, a commentary on the responses is in a report published in July 2009 (see below for summary);
- a survey of open habitat and open habitat potential on the public forest estate; and
- a report by the England Forest Industries Partnership on the potential impact on the timber industry.

Table 2 has a summary of the key areas of evidence.

Table 2 Evidence about the impact of converting woods and forests to open habitats.

Factor	Impact
Cost to public finances.	Cost vary but on average open habitats cost about £120 per ha per year more to manage than woodland. Maintaining open habitats generally costs more to public finances than maintaining woodland or forests. This is an issue because of uncertainty over long-term public funding, and evidence that recently restored open habitat is in poor condition. There are 707,000ha of open habitat already, about 50% of this is in target condition.
Moving to a low-carbon economy.	<p>Converting woodland to open habitat reduces the contribution of that site to moving to a low-carbon economy because it:</p> <ul style="list-style-type: none"> • reduces the long-term average carbon store; and • reduces timber production and the potential to substitute timber for other higher carbon materials. <p>Government aspirations for woodland creation could be compromised by too fast a rate of conversion of woods and forests to open habitat.</p> <p>There are about 130,000 ha of woodland on potential open habitat in England (Table 3). Cross-referencing this to targets for expansion and restoration of open habitats (Table 4) shows that if the contribution of woodland removal to open habitats targets were maximised, the rate of removal would be about 3,000 ha per year (Table 5). The UK Low Carbon Transition Plan sets out how an additional 10,000ha per year of woodland creation could make a significant contribution to reducing greenhouse gases. In 2008/09 the rate of woodland expansion was about 2,100 ha per year. The annual rate has fallen by 20% year on year since 2004/05.</p>
Biodiversity	<p>Restoring and expanding open habitats from woods and forests will benefit key species in many cases, but many of the desirable outcomes for biodiversity can be delivered via sensitive management of woods and forests on potential open habitat. Permanent woodland removal is not always required. 68% of the targets in relevant Species Actions Plans are on or ahead of target.</p> <p>The evidence is uncertain and we need to monitor the impacts on biodiversity. It is possible to manage retained woods and forests to make sure they still have the potential to convert to open habitat later.</p> <p>Dynamic mosaics of open habitat and woodland appear to offer benefits. For rare plants, grazing appears to be important. Connectivity and patch size are important.</p> <p>The most biodiverse open habitats are likely to be created on the least fertile soils. Negative impact on woodland biodiversity can be avoided by not losing mature native woodland and ancient woodland and allowing some flexibility to decide the approach at sites where there is special woodland biodiversity, for example when considering conversion of wet woodland to fen or reedbed.</p>
Timber industry.	Little evidence of direct negative impact, but lack of confidence due to perceived policy messages may have an impact on investment and recruitment.
Local engagement.	If local people are not involved during decision making about proposals for restoring and expanding open habitat from woods and forests, there is a significant likelihood of reducing the positive contribution to quality of life of that land and for local conflict during projects.
Landscape value	There will be little impact on landscape value as long as guidance on good practice is followed.
Access	In most cases, there will be little impact on access. However, in some cases there could be an increase in conflict between the needs of recreational users and ground nesting birds.
Other factors such as soil, water, air quality, historic environment, tourism, rural development.	Little impact as long as guidance on good practice is followed and local issues considered.

Table 3 Woodland on potential open habitat in England (data collated from various studies and information from stakeholders)

Habitat Action Plan	Potential habitat under plantation.		Potential habitat under native woodland		Spatial distribution within England
	Area (ha)	Typically managed for timber.	Area (ha)	Typically natural regeneration, little management, general yield class (GYC) 4. ⁷	
Lowland meadows	0	n/a	0		n/a
Upland hay meadows	0	n/a	0		n/a
Lowland calcareous grassland	0	n/a	c.20,000	Scrub.	Mainly southern or central. ⁸
Lowland dry acid grassland	c.300	Scots pine GYC 8.	c.3,000	Mixed regeneration mainly birch with some Scots pine.	Mainly southern or central.
Purple moor grass and rush pasture	c. 300	Douglas fir and Sitka spruce, GYC 18.	c. 200	Scrub or secondary native woodland.	Plantation mainly south west, native woodland in all parts.
Upland heathland (moor)	c.20,000	Sitka spruce GYC 10.	0	n/a	Mainly northern.
Lowland raised bogs	c.500	Sitka / Norway spruce, Lodgepole pine GYC 8.	0	n/a	Mainly northern.
Blanket bog	c.5,000	Sitka / Norway spruce, Lodgepole pine GYC 8.	0	n/a	Mainly northern.
Fens	c 600	Scots pine GYC 6 and poplar, GYC 14.	1,000	Wet woodland.	Wet woodland in East England, plantation in northern England.
Reedbed	0	n/a	1,000	Wet woodland.	East.
Lowland heathland	c.60,000	Scots pine GYC 12. ⁹ .	c.20,000	Mixed regeneration mainly birch with some Scots pine.	Mainly southern or central. ¹⁰
TOTAL	86,700		43,200		

⁷ General Yield Class (GYC) is a measure of timber productivity. It is the number of cubic metres (m³) of timber by which a stand grows per ha per year. Some conifers can reach YC 22, many hardwoods can achieve just YC 4 or 6.

⁸ We estimate that 66% of the grassland resource is in southern England.

⁹ Much is currently Corsican pine at yield class 14 but guidelines for responding to red band needle blight (see below) make an assumption of Scots pine at yield class 12 more realistic.

¹⁰ We estimate that 75% of the lowland heathland resource is in southern England.

Table 4: Habitat Action Plan targets for England relevant to policy on deciding whether to convert woods and forests to open habitats in England (from England Biodiversity Strategy)

Open habitat.	Maintenance – total area of habitat to maintained (ha).	Achieve condition by 2015, – habitat in unfavourable condition to be brought into favourable condition (as defined) (ha).	Restoration by 2015 – where it has been partly lost, recovering the vegetation for that habitat (as defined) (ha).	Expansion by 2015 – habitat to be created from established land-uses other than that habitat (ha).
Lowland meadows	7,282	6,078	481	256 from improved grassland or arable.
Upland hay meadows	870	830	48	72 (as above)
Lowland calcareous grassland	38,687	32,036	726	8,426 (as above)
Lowland dry acid grassland	20,142	17, 295	285	276 (as above).
Purple moor grass and rush pasture	21,554	19,195	128	151 (as above)
Upland heathland (moor)	220,000	To be confirmed.	No target.	No target.
Lowland raised bogs	11,200	7,466	1,000	No target.
Blanket bog	240,000	To be confirmed.	No target.	No target.
Fens	11,200	7,466	1,500 ¹¹	No target.
Reedbed	5,200	4,680	No target.	1,900 ¹²
Lowland heathland	58,000	33,070 ¹³		6,100 ¹⁴

¹¹ Target is to initiate the restoration.

¹² Targets land of low nature conservation interest. Some of this may be wet woodland.

¹³ For lowland heathland, the HAP targets combine ‘achieving condition’ and ‘restoration’ under the ‘achieve condition’ target because there is little distinction between operations for condition and restoration. Many of these operations will involve clearance of regenerating woodland. This figure does not include the element of the BAP target from expansion in the previous 5 years to avoid double counting.

¹⁴ Reported as 7,600 in *Working with the grain of nature* but 6,100 is the correct figure for England alone.

Table 5: Maximum potential contribution of woodland removal to published targets for restoring or expanding open habitats.

Habitat	Maximum potential contribution to 2015 HAP targets by removal of woodland (ha).			
	Restoration target		Expansion target	
	Plantation	Native wood	Plantation	Native wood
Lowland meadows	0	0	0	0
Upland hay meadows	0	0	0	0
Lowland calcareous grassland	0	726	0	0
Lowland dry acid grassland	0	285	0	0
Purple moor grass and rush pasture	0	128	0	0
Upland heathland (moor)	0	0	0	0
Lowland raised bogs	500	0	0	0
Blanket bog	HAP target not set.	HAP target not set.	0	0
Fens	600	1,000	0	0
Reedbed	0	0	0	1,000
Lowland heathland	0	20,000	6,100	0 (assuming no mature native woodland is removed).
TOTAL	30,239			

4.1 Summary of responses to the public consultation.

223 responses were received including those from Natural England (NE), non-governmental organisations (NGO), timber industry bodies and businesses, local and regional forums on biodiversity and land-use, community groups, FC Regional Advisory Committees and individuals. In addition 318 young people took part in producing a response.

There was no clear general consensus. The responses can be allocated to three schools of thought:

- A. Woodland removal is a last resort because of the impact on carbon emissions, the timber industry, and costs. Removal must be compensated by like for like planting, including of conifers.
- B. A policy focussed on a defined land-use for a particular reason (be it woodland for timber or open habitat for biodiversity) is unhelpful because it is possible to provide multiple benefits through dynamic and flexible land management at a landscape scale.
- C. Woodland removal to restore open habitats is supported because it helps with climate change adaptation and achieving Biodiversity Action Plan targets. There should be ambitious targets but they can be achieved over a long timescale; sites where beneficial impact on wildlife is greatest should be prioritised. Negative impacts on woodland biodiversity, amenity and carbon are relatively low and can be mitigated by (native) planting across the country.

There is strong general support for local participation in decision-making in the early stages of proposals for woodland removal.

5 Monetising the impact.

Impacts on biodiversity are discussed but are not monetised because there is no agreed methodology for monetising marginal biodiversity impacts.

Impacts on carbon emissions are monetised taking into account:

- reduced sequestration in soils and biomass because of woodland removal; and
- loss of potential for timber to substitute for more energy intensive materials.

Impacts on reporting of emissions under Kyoto due to woodland removal are discussed but not monetised to avoid duplication with the above.

The carbon impacts of woodland creation are not monetised because an acceleration in woodland creation is to be achieved by means outside this policy. Nevertheless, the carbon impacts presented should be considered in the light of the balancing mechanism that will ensure that the rate of woodland removal is balanced with an acceleration in woodland expansion.

5.1 Biodiversity benefits.

There is not enough direct evidence to allow monetisation of the potential biodiversity benefits for this impact assessment. Nevertheless, there is evidence that indicates that the value of the potential impacts on biodiversity is likely to be significant.

There is evidence that converting woodland to open habitat will have significant biodiversity benefits in certain circumstances. There is strong evidence that failing to achieve biodiversity benefits will be costly, e.g.: Braat, L and ten Brink, P (ed's) (2008) *The Cost of Policy Inaction: The case of not meeting the 2010 biodiversity target*. However, there is also evidence that the woods or forests that might be removed under this policy have significant biodiversity value.

Any valuation must take account of the net impact of marginal change – the impact of losing some woodland must be assessed against the impact of gaining some open habitat. The biodiversity in woods and forests delivers a range of direct and indirect use values and non-use values such as quality of life and landscape, access and recreation, soil, air and water quality. However, analysis of the evidence shows that in practice restoring and expanding open habitats from woods and forests will have little impact on these values provided practitioners follow good practice. Under current practice and, it is likely, this proposed policy, projects rarely involve 100% removal of woodland with 30 – 50% woodland retention being typical. Therefore, there is sufficient flexibility to accommodate landscape design to ensure use values are maintained. Therefore, the most significant impact will be on non-use values of biodiversity.

There are several examples of potentially relevant studies cited in Economics and Funding SIG (2007) *Valuing the benefits of biodiversity*, Defra:

Studies of residents in Cambridgeshire gave direct use and non-use value of action to halt biodiversity loss in the county at £16.6M per year.

A study of the non-use value of Natura sites in Scotland gave a value of £211M per year across the UK.

Studies in Cambridgeshire and Northumberland gave direct use and non-use values for conserving rare unfamiliar species or rare and common familiar species of between £189 and £94 per year per household.

Studies of the direct use and non-use value of restoration of existing habitats in Cambridgeshire and Northumberland found values of £34 - £71 per year per household.

A study of the non-use value of biodiversity in woodlands in Britain found a value of £386M per year.

Other studies are relevant, for example:

The latter study mentioned above investigated the non-use value attributed to the enhanced biodiversity of increases in the area of different types of woodland. It gave figures ranging from

35p per household per year for each 12,000 ha of commercial Sitka spruce forest; 84p per household/year for a 12,000 ha increase in Lowland New Broadleaved Native forest, and £1.13 per household/year for a similar increase in Ancient Semi Natural Woodland (Garrod, G.D. and Willis, K.G. 1997. The non-use benefits of enhancing forest biodiversity – a contingent ranking study, *Ecological Economics*, 21, 45-61).

A study of the economic contribution of the Public Forest Estate in England tentatively concluded that a value of £200 per ha per year could be attributed to high biodiversity value sites, which would include priority open habitats and £30 per ha per year for low priority sites, which would include the kind of woodland that would be most readily converted to open habitat. This implies a net value of conversion of woodland to open habitat of £170 per ha per year where low priority woodland sites are being converted (Tinch, R, et al (2010) The economic contribution of the public forest estate in England, Eftec.).

These studies indicate that the non-use value of the biodiversity benefits of both woodland and open habitat are high. However, the studies are not comparable nor can they be scaled up to a national picture. We know of no studies that provide direct evidence of the net change in value as a result of restoring or expanding open habitat from woodland.

Conversion of woodland to open habitats has the potential to make significant contributions to increasing the area of habitats of 9 out of 45 habitats with HAPs.

Of those 9, options A to E could contribute between 12% and 123% of the aggregate area targets for restoration and expansion and 19% and 185% of the lowland heathland expansion target (arguably the most significant). The preferred option, C, will contribute about 33% of aggregate targets and 50% of the key target for expansion of lowland heathland (Table 6). The relevant HAPs could potentially contribute to the achievement of targets in 52 Species Actions Plans. It is therefore likely that the value of biodiversity benefits is significant.

Table 6: Potential contribution to HAP targets of the preferred option, 1,000ha per year of woodland conversion.

Open habitat.	Relevant HAP targets potentially achievable by conversion from woodland (ha)			Maximum potential contribution from woodland removal (ha)			Contribution due to 1,000ha per year of conversion over 15 years ¹ (ha)			% contribution to HAP target		
	Restoration	Expansion ²	Total	Rest. ³	Exp. ⁴	Total	Res.	Exp.	Total	Res.	Exp.	Total
Lowland meadows	481	0	481	0	0	0	0	0	0	0	0	0
Upland hay meadows	48	0	48	0	0	0	0	0	0	0	0	0
Lowland calcareous grassland	726	0	726	726	0	726	360	0	360	50	0	50
Lowland dry acid grassland	285	0	285	285	0	285	141	0	141	50	0	50
Purple moor grass and rush pasture	128	0	128	128	0	128	63	0	63	50	0	50
Upland heathland	0	0	0	0	0	0	0	0	0	0	0	0
Lowland raised bogs	1,000	0	1,000	500	0	500	248	0	248	25	0	25
Blanket bog	0	0	0	0	0	0	0	0	0	0	0	0
Fens	1,500	0	1,500	1,500	0	1,500	744	0	744	50	0	50
Reedbed	0	1,900	1,900	0	1,000	1,000	0	496	496	0	26	26
Limestone pavement	0	0	0	0	0	0	0	0	0	0	0	0
Lowland heathland	33,070	6,100	39,170	20,000	6,100	26,100	9,921	3,026	12,947	30	50	33
Total	37,238	8,000	45,238	23,139	7,100	30,239	11,478	3,522	15,000	31	44	33

Notes

¹ Assuming amount of conversion for each habitat is proportional to maximum potential contribution from woodland removal.

² Targets for expansion of lowland meadows, upland hay meadows, lowland calcareous grassland, lowland dry acid grassland, and purple moor grass and rush pasture are all from improved agricultural land.

³ Under Biodiversity Action Plan definitions and taking into account woodland type on potential open habitat, restoration is potentially achievable for lowland raised bogs by removal of conifer plantations, for fens by removal of native woodland or non-native plantations (e.g.: poplar) and for all others by removal of native woodland.

⁴ Under Biodiversity Action Plan definitions and taking into account woodland type on potential open habitat, expansion is potentially achievable for reedbed by removal of native woodland and for lowland heathland by removal of conifer plantations.

5.2 Carbon costs.

To calculate carbon impacts for the consultation stage impact assessment, three elements were taken into account:

The process of restoring or expanding open habitats can result in carbon emissions – policy is likely to require adoption of good practice to minimise emissions so the impact is considered to be minor.

Removal of woods and forests to restore open habitats results in a reduction in the long-term average carbon store on the site and a loss of carbon sequestration through woodland growth.

Removal of woods and forests reduces the opportunity for timber to be used as a substitute for higher carbon materials or fuel.

This gives the range of impacts on carbon emissions against the baseline of 500ha per year woodland removal for open habitats shown in Table 7. Note the carbon impact is cumulative over 100 years with each year's emissions being continually added to the previous years. The calculations have been made to 2100 to reflect data availability on the cost of carbon. The detailed calculations are given below.

Table 7: Carbon impacts of policy options

Costs calculated using HM Treasury and Department for Energy and Climate Change (2010) Guidance on estimating carbon values beyond 2050: an interim approach.¹⁵

Option	Total rate of woodland removal (ha per year)	Rate of woodland removal above baseline (ha per year)	Annual average carbon impact over 100 years (£)	Carbon impact (Net Present Value over 100 years, £ millions).
A. Restore all potential habitats	4,000	3,500	-50	-795
B. Deliver HAP targets	2,000	1,500	-21	-341
C. Sustain net forest area	1,000	500	-7.1	-114
D. Current rate of conversion	500	0	0	0
E. Designated sites only	370	-130	-1.9	-30

¹⁵ Non-traded, mid-range, figures to 2100. See, [http://www.decc.gov.uk/media/viewfile.ashx?filepath=what we do/a low carbon uk/carbon valuation/1_20100120165619_e_@@_carbonvaluesbeyond2050.pdf&filetype=4](http://www.decc.gov.uk/media/viewfile.ashx?filepath=what%20we%20do/a%20low%20carbon%20uk/carbon%20valuation/1_20100120165619_e_@@_carbonvaluesbeyond2050.pdf&filetype=4).

Long-term average carbon store: the reduction in long-term average carbon store was calculated as 168tons of carbon dioxide equivalent per hectare of woodland removed (tCO₂e per ha)¹⁶ taking into account only above ground biomass. The calculations are shown at Table 8.

Substitution: Restoration results in a loss of potential for harvested wood products to substitute for higher carbon materials such as oil for fuel, or concrete and steel for construction. The evidence on the size of this impact is uncertain. Forest Research has a project to develop accurate figures, the Forest Carbon Review¹⁷. The most accurate figures available at each stage of the policy process are to be used. In the meantime, for illustration, the assumption was that all the wood is mixed with coal for power generation (“co-firing”). In this case, the loss of potential to reduce carbon emissions was 289tCO₂e per ha over and above the reduction in long-term average carbon store.

We can therefore conclude that the total negative impact on carbon balance is 457tCO₂e per ha of woodland converted on average over 100 years.

¹⁶ Average weighted for area of woodland or forest on potential open habitats, This includes an assumption of little impact for carbon in peatland soils, see evidence paper for detailed discussion..

¹⁷ <http://www.forestresearch.gov.uk/website/forestresearch.nsf/ByUnique/INFD-62XH5R>

Table 8: Changes in carbon balance due to removal of woodland or forest for restoration and expansion of open habitats (tCO₂e per ha).

Land use change	Wood or forest pre-restoration		Restored open habitat		Change on restoration	
	Long-term carbon store	Theoretical abatement over 100 years due to product substitution.	Long-term carbon store	Theoretical abatement over 100 years due to product substitution.	Long-term carbon store	Theoretical abatement over 100 years due to product substitution.
Scots pine General Yield Class (GYC) 12 to lowland heathland	158	554	18	92	-139	-462
Sitka spruce GYC 8 (thinned) to upland heathland.	106	308	18	92	-88	-217
Sitka / Norway spruce (some Lodgepole pine) GYC 8 (unthinned) to lowland raised bog or blanket bog.	169	264	18	0	-150	-264
Scots pine GYC 8 to lowland dry acid grassland	136	374	18	0	-117	-374
Douglas fir and Sitka spruce GYC 18 to purple moor grass and rush pasture	213	899	18	0	-195	-899
Pine or poplar yield class 16 to fen	393	1,505	18	0	-374	-1,505
Native woodland GYC 4 to lowland calcareous grassland, lowland dry acid grassland or purple moor grass and rush pasture.	261	176	18	92	-242	-84
Native woodland GYC 4 to lowland heathland	261	176	18	92	-242	-84
Native woodland GYC 4 to fens or wet reedbeds.	261	176	37	330	-224	154

We calculated the carbon impacts using the following assumptions:

For all woodland types, apart from native woodland GYC4, it is assumed that the option for open habitat restoration is made at the economic time of felling. The 100 year period over which the carbon benefits/disbenefits of retaining woodland cover is calculated starts follows felling, assuming immediate re-planting. The carbon associated with the previous crop is not considered.

Standing volumes and production from Edwards and Christie (1981), assuming harvest of first rotation at maximum mean annual increment. Estimates of long-term carbon stocks in standing biomass include root and branch components, calculated according to the approach adopted in

the UK GHG inventory (expansion factors of 1.18 and 1.2, respectively) and time-averaged across the two (or more) rotations.

Estimates of substitution savings include cumulative production from the first rotation (and second and third in the case of poplar) together with thinning (from Edwards and Christie, 1981) from the second/final rotation. Branch biomass is included, assuming an expansion factor of 1.2.

Native woodland (GYC4)¹⁸ is assumed to be mature (age 100 years, extrapolated SAB model from Edwards and Christie, 1981) and retained at the time that the decision over open habitat restoration is made. The woodland is then assumed to be managed on a continuous cover basis with 10 cubic metres per hectare harvested at 5 year intervals, typical for late rotation according to Edwards and Christie.

Specific densities taken from Hamilton and Christie (1974), apart from poplar, for which expert judgement was used from a range of sources. Carbon substitution benefits calculated assuming substitution for coal through co-firing of electricity generation, adopting a conversion factor of 0.71 tonnes carbon saved per tonne carbon in biomass (after El Sayed et al., 2003).

The figures are set out in Table 9.

Table 9: Calculation of carbon impacts.

Woodland to be removed.	Rotation length	Specific density	Spacing	Sequestration		Substitution	
				Standing volume (>7cm) at end of rotation	Average long-term carbon stock	Harvested biomass (>7cm)	Theoretical abatement over 100 years
Scots pine Yield Class (GYC) 12	65	0.41	2.0	367	43	740	151
	35			152		126	
Sitka spruce GYC 8 (int. thinning)	65	0.35	2.0	299	29	505	84
	35			133		56	
Sitka spruce GYC 8 (unthinned)	65	0.35	2.0	479	46	479	72
	35			169		0	
Scots pine GYC 8 (int. thinning)	76	0.41	2.0	310	37	584	102
	24			67		0	
Douglas fir GYC 18 (line thinning)	54	0.43	1.7	486	58	964	245
	36			300		372	
Poplar GYC 14 (unthinned)	27	0.40	2.7	802	107	802	410
	27			802		802	
	27			802		802	
	19			500		0	
Native woodland GYC 4 (continuous cover)	NA	0.55	1.5	176	71	854	48
Native woodland GYC 4 (continuous cover)	NA	0.55	1.5	176	71	854	48
Native woodland GYC 4 (continuous cover)	NA	0.55	1.5	176	71	854	48

¹⁸ There may be some occasions when relatively immature native woodland is converted to open habitats when biodiversity benefits are clear.

5.3 Impact on Kyoto reporting.

The impact of a restoration programme of 1,000 ha per year for 15 years, representing 500 ha per year over and above the rate in 'business as usual' greenhouse gas (GHG) inventory projections, is relatively minor, as shown in Table 10.

The impact is at its greatest during the active period of the programme (ie 2011-2026) when the direct 'one-off' emissions associated with woodland removal will lead to a significant reduction in removals associated with Article 3.3, amounting to 220 KtCO₂ relative to the projected total projected removals for 2012 of 2620 ktCO₂/yr. As A3.3 removals rise through the course of the programme, the impact will become less significant.

Beyond the active period of the programme, the marginal impact of effectively reducing the area of woodland created by 500 ha/ per year between 2011 and 2026 amounts to an average reduction of 100 ktCO₂/ per year in the sink strength of UK/English woodlands, and the same reduction in KP Article 3.3 removals. Although this appears as a relatively large impact on the total sink strength during some carbon budget periods because of the transitions from sink to source around 2020 and from source to sink around 2050, it only represents a reduction of about 5% in removals associated with the aspirational woodland creation programme in England.

It should be noted that a failure to deliver an enhanced woodland creation programme would increase the impact of a restoration programme. Note that the balancing mechanism in this policy controls the risk of this happening. In the wider context of the UK's ability to meet its emissions reduction commitments, the maximum reduction in removals of 263 kt CO₂ per annum is insignificant set against the target of reducing total UK GHG emissions from 650 MtCO₂ to 160 MtCO₂ by 2050.

Table 10: Impact on UK Greenhouse Gas Inventory.

	Removals (MtCO ₂ /yr)						
	A3.3	UNFCCC BAU	DF A3.3	AF 9,500	AF 10,000	UNFCCC 10,000	Marginal impact
2012 (UKGHGI)	2.62	5.7	0.22	0.002	-0.07	5.63	0.152
2013-2017		3.7	0.22	0.149	0.156	3.636	0.228
2018-2022		0.48	0.22	0.303	0.319	0.579	0.236
2023-2027		-2.39	0.22	0.814	0.857	-1.753	0.263
2028-2032		-4.05	0	1.346	1.416	-2.634	0.071
2033-2037		-4.33	0	1.870	1.968	-2.362	0.098
2038-2042		-3.43	0	2.083	2.192	-1.238	0.110
2042-2047		-2.27	0	1.921	2.022	-0.248	0.101
2048-2052		-1.76	0	1.830	1.926	0.166	0.096

Notes: Impact of 1,000 ha/yr deforestation programme in England (representing an additional 500 ha/yr) on the UK GHG inventory (DF A3.3). Direct estimates of the impact on the inventory used for formal reporting under UNFCCC and its Kyoto protocol are only provided for 2012 (Dyson et al., 2009). For all other periods, estimates of removals through afforestation and the impact on the forestry GHG inventory are provided using Carbine, as described in Matthews and Broadmeadow (2009). Removals associated with an aspirational planting programme of an additional 10,000 ha/yr over and above the assumed BAU rate (2,200 ha.yr) are given (AF 10,000), together with the marginal impact of reducing the planting rate by 500 ha/yr (AF 9,500). Emissions and removals associated with the wood products pool are not included.

6 Cost of delivery.

The bulk (60 – 70%) of the cost of delivery will fall to Government in the form of RDPE funding and/or the cost of managing the Forestry Commission Public Forest Estate (See section 6.5). Figures include income foregone (from timber sales) and management costs.

6.1 Cost of converting woodland to open habitat and additional net cost of managing open habitat converted from woodland.

The average cost of converting woodland into open habitat is £1,164 per ha. The data used to calculate this figure are shown in Table 11.

Table 11: Cost of converting woodland into open habitat.

Land use change	Area (ha)	Gross cost of conversion (not including profit from timber) (£/hectare)
Scots pine GYC 12 to lowland heathland	60,000	1,245
Sitka spruce GYC 8 (thinned) to upland heathland.	20,000	150
Sitka / Norway spruce (some Lodgepole pine) yield class 8 (unthinned) to lowland raised bog	500	4,975
Sitka / Norway spruce (some Lodgepole pine) yield class 8 (unthinned) to blanket bog.	5000	500
Scots pine GYC 8 to lowland dry acid grassland	300	517
Douglas fir and Sitka spruce GYC 18 to purple moor grass and rush pasture	300	575
Poplar GYC 14 to fen	600	517
Native woodland GYC 4 to lowland calcareous grassland	20,000	2,063
Native woodland GYC 4 to lowland dry acid grassland	3,000	830
Native woodland GYC 4 to purple moor grass and rush pasture	200	517
Native woodland GYC 4 to fens	1,000	575
Native woodland GYC 4 to reedbed	1,000	817
Native woodland GYC 4 to lowland heathland	20,000	1,245
Average		1,117
Average weighted by area		1,164

Costs from GHK Consulting Ltd (2006) UK Biodiversity Action Plan: Preparing Costings for Species and Habitat Action Plans: Costings Summary Report, <https://statistics.defra.gov.uk/esg/reports/bioactionplan/default.asp>. Lowland heathland costs from Forest Enterprise England and Tomorrow's Heathland Heritage.

These figures equate to a total annual average cost of conversion over the 15 year period of the policy of £1.2M. This gives the total cost of conversion over the lifetime of the policy as £13.9M (NPV).

The above are operational costs, e.g.: brash removal, fencing, habitat surveys.. Administrative costs (e.g.: cost of administering Environmental Impact Assessment) can be assumed to be 20% on top of the conversion costs (GHK Consulting (2006)).

The average net additional cost of managing open habitat once restoration is complete is £124 per ha per year. The data used to calculate this figure are shown in Table 12.

Table 12: Net cost of managing open habitat (£ per ha per year)

Land use change	Average annual timber income foregone	Cost of managing woodland	Cost of managing open habitat	Net cost of management
Scots pine GYC 12 to lowland heathland	120	61	100	159
Sitka spruce GYC 8 (thinned) to upland heathland.	80	61	100	119
Sitka / Norway spruce (some Lodgepole pine) yield class 8 (unthinned) to lowland raised bog	80	61	100	119
Sitka / Norway spruce (some Lodgepole pine) yield class 8 (unthinned) to blanket bog.	80	61	100	119
Scots pine GYC 8 to lowland dry acid grassland	80	61	100	119
Douglas fir and Sitka spruce GYC 18 to purple moor grass and rush pasture	180	61	100	219
Poplar GYC 14 to fen	140	61	100	179
Native woodland GYC 4 to lowland calcareous grassland	40	61	100	79
Native woodland GYC 4 to lowland dry acid grassland	40	61	100	79
Native woodland GYC 4 to purple moor grass and rush pasture	40	61	100	79
Native woodland GYC 4 to fens	40	61	100	79
Native woodland GYC 4 to reedbed	40	61	100	79
Native woodland GYC 4 to lowland heathland	40	61	100	79
Average				116
Average weighted by area				124

6.2 Administrative burden.

Estimates can be provided as follows:

- Number of organisations/landowners directly involved: 100 (stakeholders involved to date + local authorities with a significant interest + landowners with a significant interest).

- Assimilating new guidance: 2 hours per organisation, one-off. However, much of the new guidance will be included in guidance and codes of practice already in development such as a refreshed UK Forestry Standard and Guidelines. It is therefore unlikely that assimilating new guidance represents a significant additional burden caused by this policy.

- There is likely to be a reduction in the administrative burden due to clarification of Environmental Impact Assessments (EIA) and Felling Licences. Each EIA costs about £25K to each of Government (FC) and the applicant. This should be viewed in the context of the FC's overall Simplification Plan. This policy is unlikely to provide additional savings or costs over and above this plan.

- There is a commitment to applying an evaluation framework to individual projects. This will require practitioners to take baseline and post-intervention measurements of indicators of

desired outcomes. The results will be submitted to a central point of collation. The administrative cost of the framework is likely to be about 1 hour per organisation per project per year. At this stage estimating the number of projects is difficult. However, the framework for site by site decision making promotes projects of a large scale so it is reasonable to assume that there will be about 20 projects per year. As above, adequate evaluation is not a novel approach and the additional administrative burden is not considered significant on a national policy scale. Indeed, the central collation of more comparable data should eventually enable more effective delivery of desired outcomes.

- There will be a requirement for high quality local participation in most circumstances. Again, this is not a novel approach, can be incorporated in typical EIA costs, and will in many cases lead to reduced costs of dealing with local conflict.

- Similar comments apply to an additional requirement to consider the impact of conversion of woodland to open habitats on wildfire risk in EIAs.

For the reasons set out above we have set the cost of changes in administrative burden as a result of this policy at £0.

6.3 Woodland expansion and compensatory planting.

The policy adopts a mechanism for balancing woodland removal and woodland creation and is set in the context of aspirations for a significant increase in the rate of woodland expansion. However, the policy only directly requires woodland creation to compensate for woodland removal in a limited set of circumstances. While grant aid may be available for creating such compensatory woodland the circumstances in which policy will require it are limited enough for the impact on costs for to be insignificant for this assessment. In addition, the woodland expansion aspirations are to be achieved by a new drive for private finance.

Costs and benefits of woodland expansion are therefore not included in this impact assessment.

6.4 Total cost of delivery.

Management costs are cumulative. Assuming a linear rate in increase in area of open habitats provides additional annual average costs of managing open habitats of between £3.0M and £33M (NPV) over the policy timescale of 15 years.

Therefore, the total cost of delivering the policy options ranges from £9.2M to £80M (NPV) over 15 years. These figures are summarised in Table 13.

Table 13: Costs of delivery of policy on open habitats (£ million).

Scenario		Annual net cost of converting wood or forest to open habitat.	Total cost of conversion (NPV)	Average annual net additional cost of managing open habitat.	Total additional cost of management (NPV)	Total admin. costs (20% of operational costs of conversion) (NPV)	Total costs (NPV)
Name	Rate (ha per year) over 15 years ¹⁹						
A. Restore all the potential habitat.	4,000	4.7	40	3.0	33	8.0	81
B. Deliver HAP targets	2,000	2.3	28	1.5	16	5.5	50
C. Sustain net forest area	1,000 ²⁰	1.2	14	0.87	9.4	2.8	26
D. Current rate of conversion	500	0.58	6.9	0.37	4.1	1.4	12
E. Designated sites only	370	0.43	5.1	0.27	3.0	1.0	9.2

6.5 Cost to Government.

A study by the IUCN found that 60 – 70% of the domestic expenditure on delivering biodiversity objectives comes from Government with most of the rest coming from non-governmental organisations (Morling, P (2008) Funding for biodiversity, an analysis of the UK’s spend towards the 2010 target, IUCN, http://www.iucn-uk.org/pdf/IUCNFundingUKBiodiversity_FullReport.pdf .

Outside the Forestry Commission Public Forest Estate, any immediate need for additional public finance for land management is unlikely because of resources available under the Rural Development Programme (RDPE) (subject to the Public Value Programme and Comprehensive Spending Review 2011).

However, the FC Public Forest Estate currently receives no direct funding through the RDPE, and managing its 36,000 ha of open habitat currently costs over £2m per year. An open habitats strategy for the Estate will be developed to reflect Ministers' preferred conversion scenario and decisions on the future role of the Public Forest Estate, but additional public funding may be required.

In practice, therefore, the immediate implications of policy for public finances amount to potential constraints on RDPE and Forestry Commission budgets rather than requiring any allocation of additional public funds (Table 14).

¹⁹ The policy is assumed to operate over 15 years to reflect timescales for the Strategy for England’s, Trees, Woods and Forests, England Biodiversity Strategy, and the UK Low Carbon Transition Plan.

²⁰ 1,000ha is an estimate of rates of loss for open habitats that avoid a risk of net deforestation when this loss is added to losses due to other reasons.

Table 14: Potential constraints on RDPE and Forestry Commission Public Forest Estate budgets in the early years of the policy (preferred option C).

Year	Conversion (cost of initial operations such as removing trees and initial preparation of the land, e.g.: brash removal)	Maintenance		Total
		RDPE - Higher Level Stewardship (HLS)	FC Public Forest Estate (PFE)	
2010/11	0	100,000	125,000	225,000
2011/12	0	200,000	250,000	450,000
2012/13	0	300,000	375,000	675,000
Total for period	0	600,000	750,000	1,350,000

Assumptions

Proportion of annual rate in scenario ¹	1
Proportion of conversion that is on the PFE (%) ²	50
Cost of management on the Public Forest Estate (£ per ha per year) NB: this is the cost in the early years of conversion, later year maintenance costs tend to be lower.	250
Higher level stewardship for management of sites off the PFE (£ per ha per year) ³	200
Costs to public purse of conversion. ⁴	0

Notes

1. This is unlikely but assumed to keep cost calculation simple.
2. This is for illustration only. Any programme on the Public Forest Estate depends on development of a strategy for open habitats, decisions about the long-term role of the Estate, Forest Design Planning at individual sites, and adequate funding being available for long-term management.
3. Responsibility for the HLS budget does not rest with the Forestry Commission.
4. Assume this is covered mainly by income from timber sales and by non-public funding. There are no powers to compel landowners to remove woodland. Therefore off the Public Forest Estate the policy will be implemented by advocacy, standards, partnerships and targeting of HLS and other relevant funding mechanisms.

6.6 Cost of enforcement

The cost of enforcement is covered by the cost of felling licences and EIAs. Felling licences cost between £300 and £1,100 each to process. It is reasonable to assume the average cost of felling licences of relevance to this policy will be in the upper end, £1,000, due to the complexity of decision making required (figures from studies of FC staff time in 2006, but using 2009 salary costs).

EIAs cost £25,000 each (£26,400 at 2009 prices). Figures are from PWC (2007) Admin Burdens Measurement Study.

Assuming there are about 20 projects per year and that five of these require EIAs gives annual enforcement costs of £147K per year.

7 Risks.

The key risks relevant to this impact assessment (set out using the framework in Table 15) are:

Delivery damage due to reduction in contribution of woodlands to moving to a low carbon economy.

Risk across all options:

Likelihood: Probable, 4. Impact: Major, 4. Risk: 16.

Response: Treat with balanced approach and the balancing mechanism for balancing woodland removal with accelerate woodland expansion.

Residual risk of preferred option:

Likelihood: Unlikely, 2. Impact: Moderate, 2: Risk: 4. Response: Tolerate.

Delivery damage due to failure to maintain new open habitat leading to reduction in biodiversity benefits:

Risk across all options:

Likelihood: Probable, 4. Impact: Moderate, 3. Risk: 12.

Response: Treat with balanced approach, focus on quality, requirement for current condition to be taken into account, and information on standards.

Residual risk of preferred option:

Likelihood: Possible, 3. Impact: Moderate, 3: Risk: 9. Response: Treat with evaluation framework.

Reputational damage from criticism of the policy by stakeholders.

Risk across all options:

Likelihood: Highly probable, 5. Impact: Major, 4. Risk: 20

Response: Treat with balanced approach.

Residual risk of preferred option:

Likelihood: Possible, 3. Impact: Moderate, 3. Risk: 9.

Response: Treat with a communications strategy. If criticism develops, it is likely to be from opposing positions, e.g.: timber sector stakeholders may hold that the policy favours too much woodland removal, biodiversity sector stakeholders not enough. The policy may therefore occupy a presentationally favourable compromise position even in the face of criticism.

Delivery and financial damage due to a focus on the public forest estate leading to overcommitment of public resources for long-term maintenance:

Risk across all options:

Likelihood: Highly probable, 5. Impact: Major, 4. Risk: 20

Response: Treat with balanced approach and commitment to a strategy for open habitats on the Public Forest Estate taking into account current commitments and costs.

Residual risk of preferred option:

Likelihood: Possible, 3. Impact: Moderate, 3. Risk: 9.

Response: treat by developing and communicating a proper communications plan for the whole policy including a strategy for the public forest estate.

Table 15: Definitions for risk analysis.

KEY		RISK CATEGORY DEFINITIONS							
Impact	Catastrophic	5	5	10	15	20	25	Finance	Any Economic risk
	Major	4	4	8	12	16	20	Policy	Any Policy risk affe
	Moderate	3	3	6	9	12	15	Fundamental	Any risks over whic
	Minor	2	2	4	6	8	10	Support Services	Risks realting to ar
	Insignificant	1	1	2	3	4	5	Emerging Issues	New risks identified
								Reputational	Any risk that could dan
			1	2	3	4	5	Delivery	Any risk affecting stanc
		Remote	Unlikely	Possible	Probable	Highly probable	Health and Safety	Any risk affecting healt	
		Likelihood							

Specific Impact Tests: Checklist

Use the table below to demonstrate how broadly you have considered the potential impacts of your policy options.

Ensure that the results of any tests that impact on the cost-benefit analysis are contained within the main evidence base; other results may be annexed.

Type of testing undertaken	<i>Results in Evidence Base?</i>	<i>Results annexed?</i>
Competition Assessment	No	No
Small Firms Impact Test	No	No
Legal Aid	No	No
Sustainable Development	No	No
Carbon Assessment	Yes	No – covered above
Other Environment	Yes	No – covered in associated publications
Health Impact Assessment	No	No
Race Equality	Yes	Yes
Disability Equality	Yes	Yes
Gender Equality	Yes	Yes
Human Rights	No	No
Rural Proofing	No	No

Annexes

Annex 1: Equality Impact Assessment

Name of policy, function or service

Insert the name of the policy, process or service. Include information about whether this is a Partial Impact Assessment.

When to convert woodland to open habitats in England: government policy
See www.forestry.gov.uk/england-openhabitats for further information.
Partial impact assessment.

Purpose and aim(s) of the policy, function or service

Insert a brief outline of the purpose of the policy, process or service and provide outline details of main aim(s).

Develop a clear rationale to guide removal of inappropriate plantations and woodland where other key Biodiversity Action Plans habitat can be restored or enhanced and where the environmental benefits outweigh the costs.

The aims of the policy are to:

- generate biodiverse landscapes of woodland and open habitat that evolve to provide benefits to people and wildlife in the long-term;
- ensure that conversion of woodland to open habitat makes a significant contribution to biodiversity objectives; and
- minimise negative impacts on the ability of woodland and forestry to increasingly contribute towards a low-carbon economy.

Who will benefit mainly from this policy, function or service?

Outline briefly who the policy, process or service is aimed at, for example, customers, and staff and identify any specific groups where appropriate.

People wishing to convert woodland to open habitat, woodland managers and owners, timber producers and processors, users of potential and restored open habitat sites, staff of Natural England and Forestry Commission using relevant delivery mechanisms.
Users of potential open habitat and restored open habitat.
Non-users who care about biodiversity.
Non-users who care about forestry's role in reducing greenhouse gas emissions.

Information and Data (evidence) used

Include information of evidence collected to undertake the impact assessment. This can be a summary of information or a comprehensive list. Include information on any consultations undertaken and the associated findings.

Public Opinion of Forestry Survey.
Study of preferences in woodland.
Survey of Forestry Commission regional staff on differential responses from equality groups – none recorded.
Public consultation.
Survey of young people by young people.

Summary of Impact

Provide a summary of the impact both negative and positive and outline of any remedial action or justifications for impact.

Provide information about any modifications made to the policy, process or service as a result of the assessment and/or consultation, or alternative or additional measures.

Provided good practice is followed with high quality local engagement there appears to

be little potential impact on factors such as landscape and quality of life and access and recreation. Therefore it is unlikely that there will be significant differential impact on equality groups.

Monitoring/Evaluation

Provide a brief summary of how the policy, function or service will be monitored and evaluated in terms of equality.

We will apply an outcomes focussed framework for evaluation. One of the desired outcomes is people's positive engagement in the landscape they use, particularly their local landscape, is maintained or enhanced.

The policy includes an expectation of high quality local involvement in developing open habitat proposals.

When we review the policy in 2015 we will look for any evidence of differential involvement by diversity groups in these processes.

Further Information

Insert contact details of the individual who can supply additional information and a copy of the completed Equality Impact Assessment.

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Annex 2: Strategic Environmental Assessment and the Open Habitat policy

Purpose and background

1. The development of this policy statement has been done according to Defra's policy cycle – see: www.forestry.gov.uk/england-openhabitats. It is intended that the statement will give the overall direction for such restoration, and help guide decisions made by the FC on when 'deforestation' can occur. This document has been prepared to address the question: "Does the emerging policy for restoration of open habitats by removal of forest require a Strategic Environmental Assessment?"

Strategic Environmental Assessment Directive

2. European Directive 2001/42/EC, known as the 'Strategic Environmental Assessment' or 'SEA' Directive requires a formal environmental assessment of certain **plans and programmes** which are likely to have significant effects on the environment. An SEA is a report on likely significant environmental effects, and involves consultation with environmental authorities and the public, before the plan or programme is adopted.
3. The SEA Directive was transposed into United Kingdom law (covering England and Wales) by the *Environmental Assessment of Plans and Programmes Regulations 2004 (SI 1633)*. A Practical Guide (running to 110 pages) on implementing it is available at: www.communities.gov.uk/documents/planningandbuilding/pdf/practicalguidesea. The Environment Agency has also produced good practice guidance and case studies available at: www.environment-agency.gov.uk/research/policy/32903.aspx.

What does an SEA involve?

4. The Directive defines "environmental assessment" (Article 2(b)) as a procedure comprising:
 - preparing an Environmental Report on the likely significant effects of the draft plan or programme;
 - carrying out consultation on the draft plan or programme and the accompanying Environmental Report;
 - taking into account the Environmental Report and the results of consultation in decision making; and
 - providing information when the plan or programme is adopted and showing how the results of the environmental assessment have been taken into account.

When is a SEA required ?

5. The criteria for requiring an SEA are summarised in Fig 2 on page 13 of the ODPM Guidance.
6. The first two fundamental criteria are whether the plan or programme "is a requirement of legislative, regulatory, or administrative provision"; or is being prepared for adoption through a legislative procedure by Parliament or Government.
7. The OH Policy does not meet either of these, as there is no statutory obligation to produce one, it will not involve any new legislation and it will not be approved by Parliament. This effectively rules out an SEA at the first stage.
8. There are two further criteria that initially might appear relevant, and are worth explaining in case they are quoted out of context.
 - 'Forestry' is included in a list of policies that *could* require an SEA, but only if the policy will 'set a framework for future development consent for projects'. Since OH policy will not make

any reference to built development, and deforestation lies outwith the planning system, then it does not qualify for an SEA.

- Another phrase that features in the criteria in the Directive is whether the policy will have 'significant environmental effects'. But this criteria is only used in relation to certain smaller scale policies for built development. The fact that the OH Policy will have significant environmental impacts' is **not** itself grounds for an SEA being required as again it does not qualify as a 'development policy'.

Is there a precedent for similar statements?

9. The ODPM Practice Guide lists in Appendix 1 a list of plans that would be subject to SEAs. These are essentially development plans (e.g. Regional Strategies, Structure Plans, Local Plans, etc). The list of environmental plans that would require an SEA includes AONB Management Plans, National Park Plans and River Basin Management Plans, but all of these 'set a framework for built development'.
10. An SEA is required for Regional Spatial Strategies, and will be for Integrated Regional Strategies, but SEA's were not deemed to be necessary for Regional Forestry Frameworks.
11. FC-GB considered whether or not an SEA was required for the revised UKFS, but concluded that it was not. (Paper available from Richard Howe).
12. An SEA was undertaken for the Rural Development Programme for England 2008-2013, but a screening report was not undertaken as the European Commission had prescribed that all RDP's should include an SEA.
13. Advice is available from Defra on the application of SEA to various flood management plans (see: <http://www.defra.gov.uk/environment/flooding/policy/guidance/sea.htm>). This concludes that for medium to long-term river and coastal management plans (such as Catchment Flood Management Plans, Coastal Habitat Management Plans and Shoreline Management Plans) an SEA is not a legal requirement. However, Defra encourages 'an SEA approach' to preparing such plans to ensure that environmental impacts are considered and there is public consultation.

Does the process followed comprise 'an SEA approach'?

The process followed in developing this policy has included most of the key features of an SEA:

- All relevant environmental impacts were considered and taken into account
- Evidence on these environmental impacts was collated
- The process was carefully structured, involved objective analysis and was transparent
- There were ample opportunities for stakeholders to provide informal inputs, as well as open consultation period on options
- The impact of different options was considered
- Mitigation measures associated with different options were considered.
- Monitoring of outcomes, and ongoing evaluation, are essential parts of the process.

It is therefore clear that there are very few aspects that an SEA would include that have not been covered.

Would an SEA affect the need for EIAs?

The ODPM Good Practice Guidance is explicit in making clear that an SEA does not have any affect on requirements for EIA's for individual 'projects' carried out under the overall 'policy'. So whilst OH Policy is intended to provide a framework for our decisions on what individual deforestation proposals we approve, whether or not it has been subject to an SEA has no bearing on our 'scoping processes' and 'determinations' on whether applications for deforestation will require an EIA.

Conclusions

- The policy statement does not qualify as a relevant plan or programme as it is not a statutory requirement, and it will not be subject to adoption or approval by Parliament.
- It will have significant environmental effects, but since it does not 'set a framework for built development' this is not a relevant criteria nor grounds for requiring an SEA.
- These conclusions are compliant with the interpretation in ODPMs/CLGs Good Practice Guide where the list of documents requiring an SEA are almost all focused on planning and development.
- The process followed in developing the policy was very similar to that which would be used for an SEA, and we can thus be considered as having followed 'best practice' by taking 'an SEA approach'.
- Whether or not an SEA had been carried out would not affect determinations on whether subsequent applications for deforestation would require EIAs.

I therefore conclude that an SEA is not required, an SEA approach has been followed and carrying one out would not have added significant value to the process.

Simon Pryor

10th Nov 2009