

Landscape

'Landscape is about the relationship between people and place. It provides the setting for our day-to-day lives. The term does not mean just special or designated landscapes and it does not only apply to the countryside. Landscape can mean a small patch of urban wasteland as much as a mountain range and an urban park as much as an expanse of lowland plain. It results from the way that different components of our environment - both natural (the influences of geology, soils, climate, flora and fauna) and cultural (the historical and current impact of land use, settlement, enclosure and other human interventions) - interact together and are perceived by us.'¹

The European landscape convention defines landscape as an 'area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors'. Landscape can be defined as "an expanse of scenery and objects which can be seen in a single view". Landscape and townscape includes the look and form of buildings and includes heritage assets, for example, ancient field patterns and the layout of towns.

This document helps consideration of whether your policy may have significant impacts on the landscape or townscape. These effects could be direct or indirect. You need to identify policy impacts, quantification of the impacts and finally monetisation those impacts where possible. You should also be aware of existing controls and restrictions on changes to the landscape and townscape.

The paper is divided into seven sections

1. Landscape as an ecosystem service
2. Existing controls and restrictions on changes to the landscape and townscape
3. Does the policy impact on landscape?
4. Is the impact significant?
5. Identification of the impact
6. Quantification
7. Monetisation

¹ Landscape Character Assessment: Guidance for England and Scotland (2002) Scottish Natural Heritage and The Countryside Agency, page 2

1. Landscape as an Ecosystem Service

Landscape can be viewed in two separate ways. The first relates to landscape as a spatial unit and secondly as a service provided by environmental and socio cultural assets. Although considering landscape as a spatial scale in which to assess ecosystem services is useful, it is not the focus of this guidance. This guidance focuses on landscape as a service.

Landscape services and benefits in this respect can be divided into two categories.

- landscape as a resource in its own right, dealing with changes in the fabric, character, qualities and quality of the landscape and requiring expert knowledge of factors such as, for example, landscape character, typologies, distribution, rarity, condition and quality²;
- visual qualities and the effects these may have on aesthetic experience and visual amenity.

Therefore when considering the impact of your policy on landscape these two types of benefits and services should be considered.

² See Swanwick et al (2007) Scoping study on agricultural landscape valuation <http://www.defra.gov.uk/evidence/economics/foodfarm/reports/agrlandval/Mainrep.pdf> and Landscape Institute and Institute of Environmental Management and Assessment (2002), Guidelines for Landscape and Visual Impact Assessment, Spon Press, London

2. Existing controls and restrictions on changes to the landscape and townscape

There are a number of controls and restrictions that exist on changes to landscape and townscape and these should be considered initially. These restrictions fall into four categories; international, national and local designations and planning.

International designations

World Heritage sites must have values that are outstanding and universal. World Heritage Site status means that places are of international importance for the conservation of our cultural and national heritage. For more information on World heritage sites go to www.culture.gov.uk/ukwhportal/index.htm

European Landscape Convention also known as the Florence Convention, promotes the protection, management and planning of European landscapes and organizes European co-operation on landscape issues.

www.coe.int/t/dg4/cultureheritage/heritage/Landscape/default_en.asp

National designations

Since the passage of the National Parks and Access to the Countryside Act 1949, nationally important landscapes in England and Wales have been designated as **National Parks** or **Areas of Outstanding Natural Beauty** (AONB).

National Parks are designated for the purposes set out in section 5(1) of the National Parks & Access to the Countryside Act 1949 of:

- conserving and enhancing its natural beauty, wildlife and cultural heritage, and
- promoting understanding and enjoyment of its special qualities by the public.

AONBs in England and Wales are designated under the Countryside & Rights of Way Act 2000 (Part IV, section 82(1)) where it appears that an area which is not in a National Park is of such outstanding natural beauty that it is desirable to do so.

Links to further sources of information – **National Parks**

- <http://ww2.defra.gov.uk/rural/national-parks/>
- www.naturalengland.org.uk/ourwork/conservation/designatedareas/nationalparks/default.aspx
- www.nationalparks.gov.uk/index

Potential links to further sources of information – **AONBs**

- <http://ww2.defra.gov.uk/rural/protected/nationally/aonb/>
- www.naturalengland.org.uk/ourwork/conservation/designatedareas/aonb/default.aspx
- www.aonb.org.uk

Heritage Coasts are defined locally but the majority fall within National Parks and AONBs and therefore benefit from their statutory status. Heritage Coasts are designed to:

- Conserve, protect and enhance the natural beauty of the coasts, their marine flora and fauna, and their heritage features.
- Facilitate and enhance their enjoyment, understanding and appreciation by the public.
- Maintain and improve the health of inshore waters affecting Heritage Coasts and their beaches through appropriate environmental management measures.
- Take account of the needs of agriculture, forestry and fishing, and of the economic and social needs of the small communities on these coasts.

Local Designations

Many local authorities in England currently use **Local Landscape Designations** (LLDs) to protect locally important landscapes. LLDs are variously termed 'Areas of Great Landscape Value', 'Special Landscape Areas', or 'Areas of Special Landscape Importance' among others. For more information on local designations see Countryside Agency (now NE) paper 'Review of Local landscape Designations'

<http://www.naturalengland.org.uk/ourwork/landscape/englands/character/lcn/default.aspx>

Planning

The statutory planning system regulates many of the changes which may impact on landscape or townscape. For example, new housing development or the provision of new transport infrastructure must be considered by our planning system. The planning process attempts to regulate land use etc and avoid /mitigate the impact of development on the landscape. More information on the planning system can be found on the CLG website

www.communities.gov.uk/planningandbuilding/ . The role of Strategic Environmental Assessments and Sustainability Appraisals also may need to be considered, see CLG website for more information

<http://www.communities.gov.uk/publications/planningandbuilding/towardsmoreefficient>

It is important that any impacts on landscape arising from policy decision are identified and where possible quantified and monetised so that an assessment can be made as to whether the policy as a whole is beneficial or that any negative impacts are be avoided or reduced.

There will be policy options that will not be regulated by the planning system; these nevertheless will require scrutiny for example, changes in agricultural practice or dereliction of types of building.

3. Does the policy impact the landscape?

The first question to consider is whether your policy will have an impact on landscape.

You should consider if your policy will:

- Lead to a change in land-use or farming practices
- Lead to visually intrusive development
- Lead to significant land-take (use of land for development)
- Lead to the demolition or dereliction of notable buildings
- Lead to the loss of local character
- Adversely affect land in any National Park, Area of Outstanding Natural Beauty or in their setting

If your policy will have an impact on landscape the second question is whether that impact will be significant.

4. Is the impact significant?

To judge whether the impacts will be significant³ you should include in your considerations the value which people place on the landscapes which will be changed (or created) by the policy option.

As the European Landscape Convention definition identifies, the importance of a landscape depends on the attachment that people feel to that landscape. This attachment can be thought of as the value that people place on the benefits and services which they obtain from the landscape or townscape. For example, people may go to walk in a particular area to find enjoyment of a special view, or get the feeling of relative tranquility.

To judge if decide whether the impact is significant, consider:

- Is the character of the landscape or townscape affected
- What characteristics of the landscape or townscape are affected
- The extent of landscape affected
- The sensitivity of the receptor
- The magnitude of the impact
- The benefits and services that people gain from the landscape
- How important these benefits and services are and how strongly people value them
- How many people value the benefits
- Whether there are alternative sources for the same benefits

When considering whether the impact of the policy will be significant refer to the [NCA Maps and Descriptions](#).

The [Countryside Quality Counts National Character Areas](#) (formerly called Joint Character Areas) profiles may also be a useful tool – these profiles identify the key characteristic of the landscape and what change would enhance or diminish its character.

Nationally designated areas are seen to be of the highest value and so impacts that may be viewed as small in normal situations may be significant impacts in designated areas because

³ Refer to Guidelines for landscape and visual impacts assessment (2002) by landscape institute and the institute of environmental management and assessment for technical definition of significance

of the high value of these landscapes. Information on nationally designated landscapes information can be found via the designation history series by Ray Woolmore, the national parks websites and [MAGIC](#), the government geographical information system for the UK which has information on the location of National Parks and AONBs, together with large scale maps.

If you conclude that your policy will have a significant landscape and visual impact the third step will be to identify the impacts of the policy on the landscape and visual resources.

5. Identification

Once you have determined that your policy will have a significant landscape and visual impact, the next step is to identify exactly what those impacts will be. You should consider the impact of the policy on the following characteristics of the landscape. These will include:

- Topography - the height, form and patterns of the ground,
- Sense of Tranquility - including the absence of buildings and human presence
- Culture - forms which show human culture, settlement patterns, farming patterns, archaeological remains, heritage buildings
- Land cover - the pattern of vegetation
- The beauty of the landscape, viewed as a whole
- For townscapes, characteristics include: the layout, density and mix of buildings, architectural style, cultural spaces

Refer to the Landscape Character Assessment Guidance for England and Scotland (2002)⁴ for more information on landscape character and characteristics. For information on historic landscape characterisation refer to English Heritage website⁵.

As when determining whether your policy has a significant impact, you could refer to the [NCA Maps and Descriptions](#).

The [Countryside Quality Counts National Character Areas](#) (formerly called Joint Character Areas) profiles may also be a useful tool – these profiles identify the key characteristic of the landscape and what change would enhance or diminish its character.

⁴ http://www.naturalengland.org.uk/Images/lcaguidance_tcm6-7460.pdf

⁵ <http://www.english-heritage.org.uk/>

6. Quantification

The next step in appraising the landscape and visual impacts of your policy is to quantify the impacts you have identified. Guidance of the quantification of impacts can be found from a number of sources (see below).

When considering how to quantify the impacts of your policy consideration should be given as to whether to take whole or component approach to assessing landscape impacts.

Landscapes are made up of many features and the value of a whole landscape may be greater than the sum of the value of its components. There are strong arguments for always taking a whole landscape approach as it is a more accurate reflection of how individuals view and value landscapes, however the choice between the whole landscape or component approach may depend on the policy you are trying to assess and the valuation information you have available – see section on Monetisation challenges⁶.

Sources of information

Guidelines for Landscape and Visual Impact Assessment (co-ordinated by Sue Wilson and The Landscape Institute and the Institute of Environmental management and Assessment), provides guidelines on best practice using an iterative, assessment-based approach to design development for all types of development, with comprehensive advice on the practice and monitoring of landscape and impact assessment.

Landscape Character Assessment: Guidance for England and Scotland - The Landscape Character Assessment Guidance⁷, published by Natural England and Scottish Natural Heritage, shows how to identify and express the different elements, such as woodlands, hedgerows, moors, mountains and farmland, building styles, and historic artifacts, which give a place its unique character.

Transport projects are currently appraised using detailed guidance produced by the Department for Transport (DfT). This approach uses the environmental capital approach which describes sequentially the characteristic environmental features being appraised;

⁶ For more information on whole landscape or components see Swanwick et al (2007) Scoping study on agricultural landscape valuation
<http://www.defra.gov.uk/evidence/economics/foodfarm/reports/agrlandval/Mainrep.pdf>

⁷ <http://www.naturalengland.org.uk/ourwork/landscape/englands/character/assessment/default.aspx>

- to appraise the environmental capital, using a set of indicators, by assessing:
 - the importance of these characteristic features;
 - why they are important and to who; and
 - their inter-relationships with other environmental attributes;
- to describe how proposals impact on the environmental features, including effects on its distinctive quality and substantial local diversity; and
- produce an overall assessment score for the Appraisal Summary Table (AST) on a standard textual seven point scale (Slight, Moderate or Large Beneficial or Adverse, plus Neutral).

This methodology could be used for projects other than transport - detailed guidance on appraising landscape impacts and the Quality of Life Capital approach, can be found in the WebTAG Guidance Units 3.36 to 3.310⁸.

The DfT has also commissioned a project specifically looking at the impact of Transport Schemes on Landscape. The research project aims to estimate transferable monetary values for the impacts individual transport schemes have on the natural landscape in England. For the latest on the project go to www.dft.gov.uk/pgr/economics/rdg/landscape/

More specific guidance is also available

- Design Manual for Roads and Bridges by the Highways Agency
<http://www.standardsforhighways.co.uk/dmrb/vol11/index.htm>
- Guidance on the Impacts of Offshore Wind Farms: Seascape and Visual Impact Report
<http://webarchive.nationalarchives.gov.uk/+/http://www.berr.gov.uk/files/file22852.pdf>

⁸ <http://www.dft.gov.uk/webtag/>

7. Monetisation of Landscape Impact Appraisal

Methodologies

Once you have quantified the landscape and visual impact of your policy, the next stage is to attach a monetary value to that impact. The section on the Defra website on tools for environmental valuation⁹ will help you understand the different methodologies. Calculating the economic value of impacts on the landscape can be complicated and therefore it is advised that you contact the natural environment economics team on nee@defra.gsi.gov.uk for advice on the best methodologies to use.

Challenges to placing monetary values on landscape impacts

There are a number of challenges to assigning monetary values to landscape and visual impacts. These include

- separating out landscape impacts with other impacts such as biodiversity. Often land with ecological designations is also areas of great landscape value for example many SSSIs lie within National Parks. It may be very difficult to separate out the value of a piece of land into its landscape value and its ecological value. It is not necessary to do so, but it is important to be aware of the issue and try to avoid double counting.
- whether to value the whole landscape or landscape components. The choice between whole landscape and component based approaches will be dependent on the policy application. The choice between whole landscape and component based approaches will also impact the choice of stated preference technique i.e. contingent valuation is best suited whole landscape approaches whereas choice experiments are more suitable for a landscape component approach. More detail on this can be found in the paper 'scoping study on agricultural landscape valuation'¹⁰.

⁹ <http://www.defra.gov.uk/corporate/policy/guidance/env-impact/tools.htm>

¹⁰ <http://www.defra.gov.uk/evidence/economics/foodfarm/reports/agrlandval/Mainrep.pdf>

Economic Landscape Valuation Studies

A number of studies published have valued landscape features but it should be remembered that this is an area where values cannot be easily transferred due to the locally specific nature of the valuations. It is therefore recommended that you contact your local economist at nee@defra.gsi.gov.uk if you wish to carry out any landscape valuations, or use existing landscape values. Useful studies include

Scoping Study on Agricultural Landscape Valuation

<http://www.defra.gov.uk/evidence/economics/foodfarm/reports/agrlandval/Mainrep.pdf>

This scoping study (published in 2007) includes

1. review of relevant recent economic valuation literature including previous valuation reviews and valuation studies, and critical review of key academic papers;
2. review of both academic and practice literature on the potential role of GIS in benefits transfer in relation to landscape typologies;
3. review of the landscape evaluation and public perception literature, including; academic literature on both landscape quality/value and landscape character, and public perception of both; and review of relevant material in the 'grey' literature, not necessarily in the public domain, resulting from various consultancy and research contracts for public sector bodies;
4. review of material and data relating to potential sampling frameworks for landscape valuation studies and testing and discussion of their potential value for future work;
5. review of relevant literature and projects using visualisation as a stimulus for public engagement with landscape change and landscape value, and assessment of issues relating to its potential use in valuation studies;

Valuing transport's impact on the natural landscape

www.dft.gov.uk/pgr/economics/rdg/landscape/

The DfT has commissioned a project specifically looking at the impact of Transport Schemes on Landscape. The research project aims to estimate transferable monetary values for the impacts individual transport schemes have on the natural landscape in England.

The economic valuation of rural landscapes

www.snh.org.uk/pdfs/strategy/landscapes/Annex.pdf

This paper was prepared for Scottish Natural Heritage in 2005 and introduces a literature review of recent work on the economic valuation of landscape.

Economic Valuation of Environmental Impacts in the Severely Disadvantaged Areas

<http://www.defra.gov.uk/evidence/economics/foodfarm/reports/documents/SDA.pdf>

This study was used to appraise possible changes to the Hill Farm Allowance and valued five agricultural upland features; heather moor land and bog, broadleaf and mixed woodland, field boundaries and cultural heritage.

Environmental Accounts for Agriculture

<http://www.defra.gov.uk/evidence/economics/foodfarm/reports/envacc/index.htm>

The Environmental Accounts for Agriculture estimated some values for landscape. The accounts are currently being updated and it is anticipated that the landscape section will become more comprehensive as a result.

Valuing the External Benefits of Undeveloped Land

www.communities.gov.uk/archived/publications/planningandbuilding/valuingexternal

ODPM (CLG) guidance on valuing the external benefits of undeveloped land.