

An economic value for landscape?

Why ask?

For some time now, the issue of whether we can place an economic value on landscape, or on landscape impacts, has been the subject of debate.

Increasingly, people accept that what are known as “ecosystem services” – that is, public benefits derived from the environment such as clean water, flood risk management, biodiversity and carbon storage – *do* have an economic value and this should be recognised and rewarded by society at large.

Environmental Stewardship (in England) and ‘Glastir’ (Wales) are largely based on this principle. They are agri-environmental schemes that provide funding to farmers and other land managers who deliver effective environmental management on their land. The schemes reward farmers for going about their business in as non-polluting and sustainable a way as possible, to deliver benefits such as greater biodiversity, cleaner water courses, additional access to the countryside (beyond that required by law), the preservation of historic and archaeological features in the landscape and many more besides. (While these schemes don’t yet cover all ecosystem services, such as carbon management and storage, they cover many.)

But what about landscape *per se*? Is “landscape” simply a sum of its parts i.e. the soil, trees, waterways, grasslands, wetlands, moors and uplands that deliver these services? If so, it could be argued that we have already effectively accepted and assigned an economic value to landscape.

Or is landscape something *other than and additional to* its environmental components – the soil, trees and waterways (etc) that deliver ecosystem services? If it is, does landscape deliver its own form of “service” or benefit? If so, could we and would we want to ascribe an economic value for “landscape services” as has been done for ecosystem services? What are the implications of doing so (or not)?

Given the direction of travel with ecosystem services, we think it is timely to give some thought to the question of landscape, landscape services and economic value.

What is landscape?

CNP considers landscape to be more than the sum of its parts. Our working concept of landscape is that defined by the Council of Europe through the European Landscape Convention (ELC), to which the UK is a signatory:¹

“An area, as perceived by people, whose character is the result of the action and interaction of natural and/or human factors.” (Council of Europe 2000)

¹ Signed by the UK Government in February 2006, the ELC became binding from March 2007. It applies to all landscapes, towns and villages, as well as open countryside; the coast and inland areas; and ordinary or even degraded landscapes, as well as those that are afforded protection.

So landscape includes villages and other human infrastructure. It is not strictly limited to “land” in the sense that it includes tidal and coastal areas, and a compelling case can be made as to its influence and interdependence with “seascapes”.²

In terms of services, we might argue that all of the services associated with ecosystems mentioned above are *part of* “landscape services” (because they come from component parts of a landscape). However, CNP would suggest that there are other services that come from a more holistic view of landscape – for example, mental well-being; the feeling of “closeness” with nature which might contribute to stress-relief, a positive outlook or general happiness; spiritual enrichment; and a sense of community, identity, belonging and place (cynefin and bro in Wales).

Beyond these anthropocentric notions of service, we should not, of course, forget the intrinsic worth of landscape – a worth that is independent of any notion of human advantage.

An economic value?

In addressing the question whether we could or would want to affix an economic value to landscape in this holistic sense, it might be helpful to consider some of the arguments for and against placing an economic value on ecosystem services.

Natural England’s work

In October 2009 Natural England (NE) published *No Charge? Valuing Our Environment*,³ a report showing that investment in the natural environment is critical to long term economic growth and prosperity and that natural services provide a highly cost effective solution to growing problems like flood and coastal defence, carbon emissions and the preservation of soil, water and air quality.

In reaching its conclusion, NE selected a range of ecosystem services and, drawing on various sources together with economic valuation techniques, calculated a value for the benefits derived from each.⁴

Among the report’s key messages were that **we require a deeper understanding of the economic value of nature and natural capital** and the use of an ecosystems approach to better inform decision-making processes. The report stated that we also require **new mechanisms and institutions that enable more ecosystem services to become part of the formal economy**, thereby stimulating innovation, enterprise and investment in their provision.

The report was intended to both make the case for valuing the environment in an economic sense, and to stimulate debate about the concept of putting a value on nature – a concept that has, at least up until now, tended to provoke dismay among traditional

² Council has heard in the past of the excellent work being carried out by Edward Holdaway of Europarc Atlantic Isles to explore this concept further.

³ <http://naturalengland.etraderstores.com/NaturalEnglandShop/NE220>

⁴ For example, NE used Alkborough Flats as a case study for natural coastal defence. By cutting a 20m wide breach into the flood defence bank, 170ha of land was converted into inter-tidal mudflat, saltmarsh and reedbed. This has resulted in an annual flood protection benefit worth approximately £400k. The area has also become a wildlife haven and economic valuation techniques have valued the wildlife and habitat on the site at £535k annually. The area also stores 539 tonnes of carbon, worth an estimated £14.5k annually.

environmentalists. Following a special debate hosted by NE and Guardian News & Media, the Guardian reported on the range of views that came forward.⁵

FOR	AGAINST
<ul style="list-style-type: none"> • <i>If the value of ecosystems cannot directly be compared with the value of roads, airports etc then how can efforts to protect and conserve them hope to compete in a modern public and political debate?</i> • <i>The current way of thinking (ie not to value the environment economically) has failed to protect much of the natural world. We need to do things differently.</i> • <i>It took an economic approach to carbon emissions (in the Stern Report) to elevate climate change to the top of the business and political agenda.</i> 	<ul style="list-style-type: none"> • <i>Some things, including nature, simply transcend monetary value.</i> • <i>If we put a pound sign on every aspect of nature, then people might conclude that some bits are not worth saving.</i> • <i>People should not be paid <u>not</u> to pollute. They should not be rewarded to behave in a way that some would argue they should on moral grounds anyway.</i>

Alongside the *No Charge?* report and its vision for the uplands⁶, NE has set up three ecosystem services pilot projects – one each in Cumbria, Yorkshire and the south west uplands. Each project involves a wide range of partners⁷ – including NPAs – and will aim to test the potential for delivering ecosystem services using existing agri-environmental schemes “together with new and innovative funding streams”.⁸ Partners will work together to identify the current and potential services provided by their area, determine the value of these benefits and identify those who benefit. They will then look at what changes are required to maximise the benefits, and hope that this work will lead to “new markets and ways of investing in the natural environment and land management, which will deliver more services, and a healthier natural environment, for less money.”

The Economics of Ecosystems and Biodiversity

NE is not alone in considering this issue. The Economics of Ecosystems and Biodiversity (**TEEB**) is a study that was set up in 2007 to make the economic case for the conservation of ecosystems and biodiversity.⁹ In effect, it represents a sophisticated

⁵ See <http://www.guardian.co.uk/society/2009/oct/28/natural-england-conservation-rural-communities>. The views represented in the table are either directly quoted from or summarise those expressed in the Guardian article.

⁶ *Vital Uplands: A 2060 Vision for England's Upland Environment* (2009).

⁷ The partners already signed up to the pilots include water companies, NPAs, the Environment Agency, British Waterways, regional government offices and tourism development initiatives.

⁸ See <http://naturalengland.etraderstores.com/NaturalEnglandShop/NE225>

⁹ The TEEB study is run by the United Nations Environment Programme (UNEP) with financial support from the European Commission, German Federal Ministry for the Environment, and the UK Department for Environment, Food and Rural Affairs (Defra). It is led by Pavan Sukhdev, a senior banker from Deutsche Bank (on secondment with the UNEP) and founder-director of the green accounting project “GIST” (Green Indian States Trust) in India. More information about the TEEB study can be found at <http://www.teebweb.org/Home/tabid/924/language/en-US/Default.aspx>

and compelling case in favour of placing the value of ecosystem services squarely within an economic framework.

The study draws on expertise from around the world to evaluate the costs of the loss of biodiversity and the associated decline in ecosystem services worldwide, and to compare them with the costs of effective conservation and sustainable use. Its purpose is to raise awareness of the value of biodiversity and ecosystem services and to aid the development of effective policy, as well as engage businesses and individuals. In practical terms, there will be several “outputs” targeting these three groups:

- i. A **policy toolkit** (already published, November 2009) – covering subsidies and incentives; environmental liability; new market infrastructure; national income accounting; cost-benefit and cost-effectiveness analysis; and methods for implementing ‘Payment for Ecosystem Services’ (called **PES**) and Access and Benefit Sharing (**ABS**);
- ii. **Information for businesses** (to be published in 2010) – on how to measure then mitigate or offset corporate impacts on ecosystems and biodiversity; and
- iii. **Information for citizens** – on the value of ecosystems and biodiversity, with examples of how to reduce our impact on nature and influence producers through consumer choice.

The policy toolkit, *TEEB for Policy Makers*, is a detailed document which we have not attempted to absorb for present purposes. However, of interest will be its firm suggestion, under the heading ‘*Available solutions: instruments for better stewardship of natural capital*’, that protected areas deliver significant public benefits both individually and as a global network and that increasing coverage and funding, including through PES, would optimise their potential to maintain biodiversity and expand the flow of ecosystem services for local, national and global benefit.¹⁰

Writing about TEEB earlier this year,¹¹ Pavan Sukhdev, the study leader, highlighted the rationale supporting it. In summary, he argued that the “economic invisibility” of nature in the current economic model is both a symptom and root cause of ecosystem degradation and biodiversity loss. “We value what we price, but nature’s services...are not traded in any markets and are not priced.”

Sukhdev suggested that we need to change incentive structures, reduce or phase out perverse subsidies, and effectively re-imagine economics. “**Holistic economics**” would recognise the value of ecosystem services and the cost of their loss and lay the foundations for a true green economy. This new model would reveal the true trade-offs that are made between different ecosystem services (food provision or carbon storage); different beneficiaries (private or public/ gain or loss) at different scales (local or global) and across different timeframes (jam today or jam tomorrow). This in turn may show something that seemed acceptable, such as a new road scheme, to be completely unacceptable – once the full costs and benefits have been analysed.

¹⁰ See <http://www.teebweb.org/ForPolicymakers/tabid/1019/language/en-US/Default.aspx> for summary and full document.

¹¹ <http://www.guardian.co.uk/commentisfree/cif-green/2010/feb/10/pavan-sukhdev-natures-economic-model>

So how is this relevant to landscape...? A practical example

A practical example might help to throw some light on what all of this means for landscape. If we were persuaded by the arguments above that in order that it is counted, we must accept an economic value for landscape, what would that mean in practice?

In 2008 CNP jointly hosted with the Department for Transport (**DfT**) a seminar to discuss its *New Approach to Appraisal (NATA) 'Refresh'*. NATA is DfT's appraisal framework. NATA Refresh was launched in 2007 to review the appraisal framework in the light of the recommendations of the Stern Review of the Economics of Climate Change and the Eddington Transport Study into the links between transport and economic growth.

Among the themes that were introduced by NATA Refresh was the idea of better capturing environmental impacts, particularly valuing carbon emissions, *landscape impacts* and changes in air quality.

NATA itself combines quantitative (measurable) and qualitative analysis. For the qualitative analysis it used what is known as the 'Environmental Capital Approach' (**ECA**) in the appraisal of transport impacts on landscape, heritage, historic resources, biodiversity, water and the environment. ECA involves describing landscape character and features; appraising these (why are they important and to who?); a description of how the proposals impact on character/ features; and an overall assessment score using a seven point scale.

NATA Refresh proposed a number of changes to transport appraisal. One such proposal was for DfT to assess whether economic valuation techniques – that is, calculating a monetary value – could be used on specific landscape types to improve the understanding of the impact of transport project on landscape. Although it recognised that there are a number of challenges in seeking to do this, DfT commissioned a three-stage project to develop transferable monetary values for the impacts of individual transport schemes on natural landscapes.

CNP's position was firmly that this should not happen. The reasons were many, and included that economic (monetary) value simply could not capture the intangible benefits that landscape offers, such as well-being, spirituality or its happiness-generating quality; that even if monetary value were assessed alongside qualitative judgment, the presence of a 'hard' figure would undermine the latter; and that there are too many practical difficulties with calculating monetary value (and then applying off-the-shelf values to unique local landscapes). Instead, CNP recommended a number of changes to NATA's qualitative landscape assessment, such as greater public participation; independent scheme assessors; and at a national level, joint decision-making by DfT and Defra.

At the time of writing, DfT's research in this area has been put on hold. But should it resume, or should some other initiative emerge to put a pound sign on landscape or landscape impacts, should we continue to oppose it? Or should we reconsider? The trend in finding ways to value ecosystem services might at least give us pause for thought.

Questions for discussion **

- What are the advantages to putting a monetary value on landscape?
- What are the disadvantages? What are your views on where the balance lies?
- If there were no choice in the matter and DfT (or another public body) were to proceed as intended, how would we want them to go about assessing monetary value?
- Is there a way of making qualitative (judgment) and quantitative (monetary) values work together so that one doesn't dominate the other – for example, in the way they are presented?
- Any other thoughts? Let us know.

*****Note that we intend to reflect views expressed in the discussion back to NE and CCW (although anonymity will be respected).***

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