

21<sup>st</sup> EEAC conference on 'Managing ecosystems for people, nature and economy', Bangor Oct 2013

## Overview

This conference was part of a series of network events delivered by the European Environment Sustainable Development Advisory Council ([EEAC](#)) with government representatives from 16 European countries. Each year the council supports a conference on a specific topic deemed high priority.

This year the aim was to identify and understand better the evaluation tools that exist that can help demonstrate how realistically we can pay for environmental benefits that also support community needs and help drive the economy. The following should be read in conjunction with reviewing the presentations available in the [archive](#) since many talks include some very informative conceptual diagrams and these are embedded with the presentations. Videos of the conference can also be viewed from the [media page](#).

## Address from Welsh Government

As the conference was in Wales it was fitting that the welcoming address was from [Welsh Government](#). The message was clear: *whilst there is a lot of scientific knowledge surrounding ecosystem services research, often it is not in a format that is accessible to those who need to apply it.* There is an urgent need to convince managers that it is essential to think about the sustainability of measures and the hope was that this conference would go somewhat to identifying ways to do this.

## A keynote speech from the previous director of the European Environment Agency (EEA)

The Chair of the EEAC, [Miranda Schreurs](#), strengthened the message from Welsh Government stating that we needed to ensure that environmental issues are clear and transparent to everyone. Jacqui McGlade (previous director of the [EEA](#)) continued emphasising the importance of recognising the latent expertise at the grass roots level ([watch video](#)). People have already experienced adapting and reacting to climate change. The next challenge is to incorporate social and economic development by encouraging all sectors to be involved with environmental projects to make a difference. She went on to say that it is essential to ensure that all communities appreciate the implications of water use be it what is used in our homes or agricultural irrigation. *To achieve benefits we need to understand what is actually meant by natural capital and what we need to do to protect and enhance it.* She stressed the need to think about how we can apply the ecosystem services concept at a range of scales, (i.e. the local, national, and international scales). To do this we must *develop ecosystem services tools that can be used and understood by a wide audience*, and find a way to better link communities to the environment: if people see the benefits of a healthy environment to their own well-being they are more likely to be willing to participate and pay.

## Workshop format

The workshop then split into 2 sessions with one focussing on policy and the other on research.

## The policy view

In this first session speakers came from a range of backgrounds and viewpoints. All recognised the complexities surrounding ecosystems services. The key points are highlighted below.

- The concept of ecosystems services remains difficult to quantify ([Sabine Apitz video](#))

- We should think about dis-services rather than services in the context for farming (e.g. if a farmer does not provide habitat provision for birds or deal with nitrate emissions via buffer strips this is a dis-service). This would provide a benchmark to start from (Ian Hodge)
- We need to think about what is meant by the concept that the polluter pays since often it is difficult to identify the polluter ([Ian Hodge video](#))
- When aiming to link public health to ecosystem services we need to think about physical exercise and recreation opportunities, as well as the benefits for physical and mental health, social, spiritual and psychological elements. But how we do this is difficult since the health sector is not fully engaged with the concepts of biodiversity and ecosystems; how can we create this link across scientific sectors ([Conor Kretsch video](#))?

Presentations were then given by the [Joint Nature Conservation Committee](#), [Natural England](#) and [Scottish Government](#). Collectively they discussed the policy behind the ecosystems approach and provided examples of how the concept has been used. Natural England demonstrated how the [ecosystem transfer tool](#) had been trailed in upland areas including Cumbria and Yorkshire whilst Scottish Government focused on their land use strategy pilot projects in Aberdeen to demonstrate how they were [mapping ecosystem services](#) in that area.

The focus then returned to Welsh policy. [Matthew Quinn](#), Director of [Environment and Sustainable Development](#) at Welsh Government recognised that current political legislation is not best set up to deal with the ecosystems approach. Key however, to forwarding ecosystems services as a viable approach for environmental and economic benefit is through: increasing the evidence base so that complexity can be represented rather than removing it from models. *This will then enable risk and uncertainty to be better considered which in turn can result in decisions being made that can confidently increase resilience and adaptation.* Critical however to making the right decisions is to ensure that people and their behavioural patterns are at the heart of any decision-making framework.

### **The research view**

The first session focussed on ecosystem services research in Europe and some of the challenges and directions of research, e.g. air pollution and the EU biodiversity strategy. The key points are highlighted below.

- Research typically addresses the biophysical aspects of ecosystem services; methodologies and classifications, biophysical foundations, assessment and monitoring, mapping, valuation and accounting, e.g. The Economics of Ecosystems and Biodiversity ([TEEB](#)) initiative. There is a scarcity of studies on the social aspects. This, and demonstrating how different dimensions of ecosystem services link, are key challenges ([Kurt Jax video](#))
- Air pollution (nitrates, sulphur, ozone) can reduce ecosystem services, e.g. via eutrophication or acidification, and result in a net loss of (biophysical) value ([Jones et al., 2013](#)). However, there are knowledge gaps in the valuation of cultural services and value-transfer evidence, which may underestimate the overall benefits of reducing pollutant deposition ([Laurence Jones video](#))
- There needs to be a greater emphasis on policy relevant research and collaboration between scientists and policy makers. Qualitative and quantitative research, such as the [EU Biodiversity Strategy](#), has produced monetary values for the broad network of ecosystem services BUT micro-level data is required for site management decisions. Large scale studies provide ideas but not frameworks for managing local environments ([Ece Ozdemioğlu video](#))

The second session focussed on research outputs. Presentations were given describing the deliverables and feedback from the UK National Ecosystem Assessment ([UK NEA](#)) and the ongoing

challenge of linking the perspectives of ecologists, social and economic scientists. This may be met by the *promotion of interdisciplinary and transdisciplinary research* ([Steve Albon video](#)). The uncertainty in future change (e.g. climate change), drivers for change and how this may impact on ecosystem services was echoed throughout the three presentations. Roy Haines-Young ([video](#)) suggested a set of Ecosystem Services Scenarios to promote debate and stimulate knowledge uptake. New deliberative tools could be used for stress testing policy response options and checking our natural assets. Ruth Welters ([video](#)) from the [Valuing Nature Network](#) reiterated the importance of communication and involving all relevant stakeholders from different disciplines and policy backgrounds to increase the synergy between research and policy.

### **Concluding remarks**

- There is a wealth of data and techniques for evaluating ecosystem services but how should we prioritise these? General consensus was that place-based assessments at the local scale and transparency in how we make decisions and trade-offs were favoured approaches
- We must go beyond the economy to deliver the societal values of ecosystems services following a robust approach at the appropriate level of scale. We cannot get side-tracked by trying to monetise everything
- We need to better articulate ecosystem services and natural capital in ways that different stakeholders can understand and get the general public interested in protecting the natural environment that they recognise they benefit from
- To change the focus from protected areas, e.g. site of special scientific interest, SSSIs) to the wider natural landscape
- A quick win could be to publish planning guidance on green infrastructure for public areas

Blog post by Jenny Mant ([River Restoration Centre](#), Cranfield University) and Emily Lawson (University of Nottingham).

<http://blogs.nottingham.ac.uk/blue-greencities/2013/12/18/eeac-conference-on-managing-ecosystems-for-people-nature-and-economy-bangor-oct-2013/>