

Crystal clear?

A photograph of two young children outdoors. One child, wearing a blue long-sleeved shirt and green cargo pants, is holding a large blue megaphone to their mouth. Another child, wearing a dark grey shirt and camouflage pants, is standing behind them, also looking towards the megaphone. The background is a soft-focus natural setting with green grass and a body of water.

**The language
we use in
dialogue
about people
and nature**

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Department
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The Network is a resource for anyone wanting to share knowledge or learn about the practical benefits of the ecosystem approach. The Network draws together experience from the UK and elsewhere to assist organisations to understand how the ecosystem approach can help us build sustainable communities. It provides the expertise and experience of a growing UK-wide active community.

Opportunities to get involved

There are lots of ways to participate in the Network, which is free to join.

The best starting point is <http://ecosystemsknowledge.net/about/participate>, where you will find links to:

- register as a Member and tell us what the Network can do for you;
- a form to propose an activity that is aligned with the aims of the Network (limited practical and financial assistance is available to support these activities); and
- contact us with details of a relevant project, tool or scheme that will be of interest to other members.

Cover photo: Children using talking tubes at Ingrebourne Hill, Essex. Credit: Forestry Commission. © Crown Copyright

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Crystal clear?

Speaking clearly about the connections between people and nature

In recent years, new terms that connect people and nature have begun to appear on people's lips. Some like to talk of the importance of 'green infrastructure'. Others try to get their message across using the language of 'nature's services' or 'ecosystem services'. Talk of 'natural capital' is on the rise too. Most of the ideas behind all these new terms aren't new. Their popularity, however, signals a growing understanding that nature is vital to people in ways that have not been appreciated or accounted for.

A benefit of the new lingo (or at least the chat it provokes) is that it can generate new ideas for action. It can encourage new people to become involved in looking after land and water in ways that better reflect our values for nature. On the other hand, new terms can exclude those who find them impenetrable. They can be barriers to people from disciplines and professions that weren't involved in coining them. New language can be confusing when it merely repackages ideas that have been around for decades (one of the first uses of natural capital was by E.F. Schumacher in his 1973 book *Small is Beautiful*).

In this issue of *Ecosystems News*, various members of the Ecosystems Knowledge Network address the issue of communicating the ecosystem approach and the concepts that are now closely related to it. Whatever our role in the management of land and water, and whatever our view of the latest buzzwords, getting the idea of a joined-up 'systems' view of nature across to the unaware (or unconvinced) is vital. As environmental thinker Mark Everard says on Page 5, "embedding the ecosystem approach requires people from across all sectors to understand their dependence on nature".

What is particularly exciting is that when the new terms such as natural capital are used, it is now not just in relation to academic theory. Rather, the ideas underlying them are beginning to change the way that we manage particular parcels of land. At the recent launch of the Natural Capital Committee's third report, there were a notable number of local initiatives represented, along with a range of major land owners. Local initiatives are already investing in natural capital, building green infrastructure and restoring ecosystem services. The job of the Ecosystems Knowledge Network is to put a spotlight on these, and to connect them so the best ideas are shared.

Read on and join in the activities of your Network. If you are reading this and not already a member, do register via our website (it's free).

<http://ecosystemsknowledge.net>



Bruce Howard, Network Co-ordinator



Communicating ecosystem services

Dr Mark Everard, Associate Professor of Ecosystem Services at the University of the West of England and Vice-President of the Institute of Environmental Sciences, discusses the importance of communicating the relevance of ecosystems in appropriate ways.



The notion of nature as provider dates back into prehistory. However, representation of human benefits as an interconnected system is more recent, dating back to international development in the 1980s. For consistent assessment of major habitat types across bioregions, the Millennium Ecosystem Assessment classification integrated many prior 'goods and services' classifications into four categories – provisioning, regulatory, cultural and supporting services – reflecting qualitatively different types of human benefits and associated value systems.

Some important considerations about what ecosystem services mean are worth reiterating for effective communication with disparate, particularly non-technical audiences.

The eco-system

'Ecosystem' comprises the prefix 'eco-' and the root 'system'. The 'eco-' prefix can be unhelpful if 'ecosystem services' are interpreted as all about 'green' matters, to be left to environmentalists to sort out. However, embedding the ecosystem approach requires people from across all sectors to understand their dependence on nature: for food and water, healthy air, pleasant places, commodity and resource availability and prices from secure supplies, and so forth. Sometimes, we must touch lightly on the 'eco-' element in case one is perceived as 'special needs pleading'. Rather, if we can help a farmer see that consideration of ecosystem services helps avoid losing valuable soil resources to erosion, attracts more subsidies for societally preferable practices, saves on expensive fertilisers, and manages pest predators contributing to savings on pesticide usage and risks of prosecution, we have a win-win situation. Same services; different appreciation. That's the way we work in the Rivers Trusts.

"embedding the ecosystem approach requires people from across all sectors to understand their dependence on nature".

Sometimes, unreconstructed narrow practices are now dressed up in ecosystem services language. True, flood management is an important service, as is water quality management, food production and access to amenity areas. But the root 'system' warns that 'cherry picking' services is dangerous. We have previously tended to maximise one or a few services whilst overlooking others. The legacy of such silo thinking is all around. Take sewage treatment techniques improving effluent quality yet generating more greenhouse gases and demands for chemicals, landfill space and transport of inputs and outputs. Equally, the pursuit of cheap food production has led to externalised damage to biodiversity, water quality, hydrology and landscapes. Net public value, equity across sectors and generations, and sustainability are victims of failure to plan and act uninformed by cross-system implications.

Services are about people

Another important facet germane to communication about ecosystem services is that they are about people. Remember, the Millennium Ecosystem Assessment classification recognised qualitatively different categories of services, reflecting different constituencies of society. Omit a service from consideration, and you marginalise that beneficiary sector. Take a narrow view of just one value system – say money – and you do the same.

Natural analogies

An article in Environmental Scientist summarised three analogies helpful to me since the 1980s in communicating ecosystem services.

Firstly, ecosystem services are 'the verb of nature'. They are not what nature IS: biodiversity, geodiversity, functions, processes and all that complicated stuff. They are what nature DOES. We are not 'putting a price on nature'; we're recognising what it does for people.

Secondly, ecosystem services are like an iceberg. 90% is under the surface maintaining ecosystem integrity, functioning and resilience, enabling ecosystems to produce the bits we see 'above the waterline'. If we only manage for what we exploit, we undermine nature. Ecosystem services are about thinking about the whole, not just the narrow bits we currently incorporate in the market.

Thirdly, ecosystem services are a 'Babel Fish of nature' (thank you Douglas Adams and The Hitchhiker's Guide to the Galaxy!) translating nature's complexity into 'languages' meaningful to disparate sectors of society: resource costs, food quality, fishing opportunities, aesthetic vistas, natural flood management, etc. They are thereby a 'universal translator' of how nature services multiple beneficiaries.

"ecosystem services are a 'Babel Fish of nature'"

This article is based on a longer one originally published in 'Environmental Scientist' (December 2014) the journal of the Institution of Environmental Sciences https://www.the-ies.org/environmental_scientist

So what advice can I offer on communicating the ecosystem approach to others? Well, here are some quick and easy starters...

- **Think like your target audience.** Adopt the method commonly used by fictional crime thriller detectives when hunting a serial killer: anticipate their needs, understand their habits, know their preferences, imagine the world through their eyes. Don't simply bombard your audience with information and hope that some of it will hit home. People rarely have the motivation to make sense of messages that aren't written specifically for them. So make the effort to ensure what you're saying is *meaningful* to whomever you're talking to.
- **Answer the "So What?" question.** This is a trick used by marketers who know better than anyone about making things meaningful to different audiences. Pose this question in relation to everything you're trying to say to your target audience. Keep asking the same question until you arrive at an answer that describes a clear benefit. For example: *"The ecosystem approach is the comprehensive integrated management of human activities"*. So what? *"Well, this means people working together in a joined-up way"*. Yeah, but so what? *"So it's about making things more effective; more than the sum of their parts"*. Ok, now we're getting somewhere...
- **Circumlocute terms that need elucidating.** If a word needs explaining, use another one that doesn't. Don't assume that everyone is familiar with terms such as "ecosystem" and "biodiversity". Swapping them for "nature" and "wildlife" might raise the hackles of some ecologists, but they're much easier terms for everyone else to understand. Start the conversation with familiar language and introduce new terms once people have taken interest.
- **Use short sentences.** Like this one.
- **Include calls to action in what you are saying.** Information on its own is just 'stuff'. People already have to sift through vast amounts of stuff each day, at work and at home. To help avoid your messages being filed in the trash folder, include an invitation for people to *do something* other than just read the stuff you're sending them. These invitations can be very simple – it might be a prompt to click a link in an email to learn more; or a request to share their views on a subject; or to forward a message on to colleagues who might be interested, and so on. Such requests are known as 'calls to action' and they're proven to encourage people to pay greater attention when reading information, even if they choose not to respond to them.

On that note, you're very welcome to email me if you've found this interesting: paul@countriescape.org

Paul Mahony is the Creative Director of Countryscape, a company that combines the creative skills of a communications agency with the scientific knowledge of an environmental consultancy.

Eco-what?! The need for clarity and consistency in communication using ecosystem terminology

Kerry Waylen and Kirsty Blackstock at the James Hutton Institute explain why the lack of consistency in ecosystem terminology is acting as a barrier to good communication. They explain the importance of project teams agreeing consistent terminology at the start of a project.



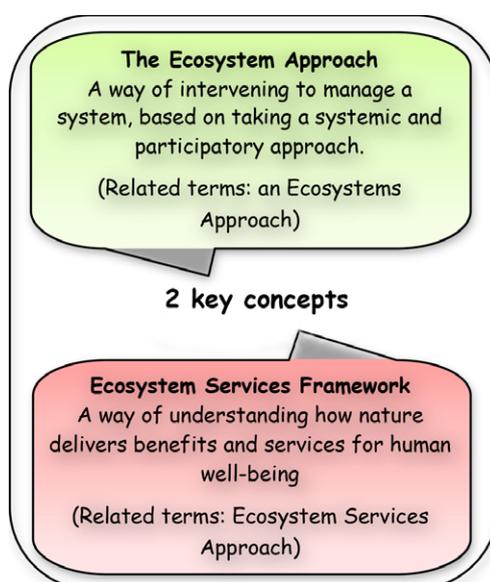
People may have a lot of different ideas in mind when using 'eco' terminology: although this can be problematic for communication, a little reflection can help avoid these problems.

In the past few years we've been working on a variety of projects relating to ecosystem services and approaches to environmental management and governance. During this time we've observed the use of many terms which mention 'ecosystems' or 'ecosystem services'. Examples include: "ecosystem services approaches", "ecosystem service frameworks", "the ecosystem approach" or "an ecosystems approach". Sometimes a single document may use multiple terms with a single meaning. In other cases, different documents use the same term, but with different meanings. This is happening across all natural resource management and related sectors, and includes both academics and practitioners. It's pretty confusing, and it can act as a barrier to good communication in three ways.

- It can make it harder to reach new audiences and engage with new groups in environmental management: these groups are likely to feel confused or at a disadvantage.
- It can make it harder for individuals and partners to communicate with each other, and make progress in their plans. If different people are using the same terms in different ways – or vice versa – this can eventually lead to frustrations and disappointment. At best, it slows down discussions; at worst, the differences can go unacknowledged or unnoticed, causing people to work at cross-purposes.
- Where some people have used the terms as a 'contemporary' label for pre-existing ways of working, this widens the set of situations in which the terminology is used, and can further add to confusion. It may also risk disenchantment as people question what, if anything, is new and unique in messages that use these terms.

“It may also risk disenchantment as people question what, if anything, is new and unique in messages that use these terms.”

So, what can be done? We’ve explored the terminology and have identified two distinct concepts which underlie many discussions. We think understanding these helps.



The first idea is ‘the ecosystem approach’ (sometimes also called ‘an ecosystems approach’). This is a holistic approach to managing ecosystems that advocates taking a systemic and participatory approach. This concept was adopted by the Convention on Biological Diversity in 2000, reflecting the latest thinking about ecosystem-based management – such as the need for adaptive management – as well as the arguments for stakeholder empowerment and recognising that humans are a part of an ecosystem. It has 12 complementary and interlinked ‘Malawi Principles’, the implementation of which is intended to achieve the Convention’s aim of conservation, sustainable use, and fair and equitable benefit-sharing.

The second idea is the ‘Ecosystem Services Framework’ (sometimes also called ‘the ecosystem services approach’). This means understanding how nature delivers benefits and services (ecosystem services) for human well-being. This is now an obvious idea for many people but contrasts with more ‘traditional’ ways of describing natural systems solely in terms of biodiversity and ecological functions. The reports of the Millennium Ecosystem Assessment in 2005 greatly popularised this way of understanding. Since then there has been much work to refine these concepts and explore

exactly how they can be used in practice. This entails many areas of work, from spatial mapping of ecosystem services, through to exploring the relationships between ecosystem services and biodiversity. Increasingly, in recent years this work has often been associated with methods to elicit and report economic values of the benefits that society realises from the natural environment. This way of understanding can and does influence management actions – for example, ecosystem services knowledge can be used to shape development plans – but it does not equal or encapsulate all principles of the ecosystem approach.

Despite sounding similar, these concepts are actually quite different: one is a way of doing, and the other is a way of understanding and measuring. Because of this, people using similar words might have very different ideas and expectations. These differences, if not acknowledged, can impede good communication but also suggest how some problems can be avoided. We suggest it is important for anyone working with ‘eco’ terminology – as an individual, an organisation, or a cross-partner team – to explicitly reflect on the concepts, expectations and rationale for using these terms. Only then, after establishing shared ideas, discuss what terminology should be used. Whatever is selected, it is vital to be consistent. It is also probably a good idea to avoid using too many terms, and terms that are very similar. Once a project team or initiative has agreed its own understanding, it is then important to engage any further stakeholders or audiences to discuss the ideas and concepts with them. This discussion can include how any new ideas and terms may relate to other concepts or issues that they are already familiar with.

“...people using similar words might have very different ideas and expectations.”

In short, we suggest considering concepts should help promote clarity in communication. This article doesn't define every relevant ‘eco’ concept, nor provide a recipe for stress-free communication. However, we do hope we've helped provoke further discussion about how we all use and understand ‘eco’ terminology and how communication can be improved.

This article builds on the ideas in a briefing note originally written for Ecosystem Service Community for Scotland (ESCom) and available from <http://www.hutton.ac.uk/sites/default/files/files/ecosystemservices/Eco-Communication2Pager.pdf> This briefing note acknowledges the sources of support and feedback which have informed our ideas. Other work on ecosystem services by the James Hutton Institute is available from <http://www.hutton.ac.uk/ecosystemservices>

Both Kerry Waylen and Kirsty Blackstock work in the Social, Economic and Geographical Sciences (SEGS) research group at the James Hutton Institute. Kerry's work focuses on understanding and improving participatory and systemic approaches to natural resource management and environmental governance, and if and how concepts such as ecosystem services can support these. Kirsty is a sociologist who works on environmental governance, particularly public and stakeholder participation in environmental policy making and implementation and evaluation processes.

Mainstreaming ecosystem thinking: finding the right hooks

The built and natural environment professions exist largely in their own silos. Bringing the two groups together is all about finding the right hooks for meaningful dialogue. Alister Scott, Professor of Environment and Spatial Planning at Birmingham City University explains more. Using the example of the planning system this article provides important lessons for engaging other professional groups with ecosystems thinking.



Current thinking about people and nature as a system provides a powerful new lens to improve our understanding and management of the natural environment. The UK National Ecosystem Assessment main report in 2011 provided the first base line assessment of the state and value of the UK's natural environment. It concluded that the services provided by nature were in significant decline, in part because nature is consistently undervalued in policy and decision-making. This poses fundamental questions about how we can mainstream nature into policy and decision-making in practice, particularly when economic growth seemingly trumps most considerations.

Currently, the built and natural environment professions exist largely in their own silos. They have separate theories, governance and interventions. Virtually all scientific study relating to ecosystems thinking has been funded by public sector organisations that are focused on looking after the natural environment. This means that the voluminous and complex language of ecosystems is perceived as alien and largely irrelevant to those non-environmental interests. Significantly, many of the decisions affecting the natural environment lie with other professions. It is arguably the built environment, through the operation of the planning system, which has most impact on ecosystem services through its development plan policies and decisions.

Although procedures that formally assess the impact of new projects and proposals can help ensure that environmental considerations are appropriately identified and taken into account, there remains a dominant narrative that the environment is a constraint to be overcome; a perceived cost to development. The twin concepts of natural capital and ecosystem services have been advanced as new lenses to address this negativity but both lack sufficient currency and traction in the built environment, making them vulnerable to 'cherry-picking' to support particular policy positions. In this case, there is a risk that decision-makers value only what they want to measure rather than measuring what society actually values. The 12 principles that collectively underpin the ecosystem approach provide guidance to overcome these potential abuses, but only if they are used collectively within policy and/or decision-making processes.

"The twin concepts of natural capital and ecosystem services... both lack sufficient currency and traction in the built environment, making them vulnerable to 'cherry-picking' to support particular policy positions."

Consequently, we have translated these ideas within a National Ecosystem Assessment Toolkit, which is now hosted by the Ecosystems Knowledge Network. This toolkit, which is arranged as a tree (see illustration), focuses attention on the universal stages by which ALL policy and decisions are made. Each stage has guidance that is adapted from the ecosystem approach and established good practice, signposting the bundle of tools to use.

National Ecosystem Approach Toolkit



National Ecosystem Assessment Toolkit arranged as a tree

So to mainstream ecosystem thinking into practice within a given sector you first must identify their key 'hooks' that drive their work practices.

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For the built environment in England these hooks are illustrated in the table below. The National Planning Policy Framework and National Planning Policy Guidance are key hooks with statutory clout and resonate in discussions with and amongst decision-makers. Within these documents we can identify key concepts and terms which connect with the ecosystem agenda. It is from these recognised planning terms that we can then apply our understanding of ecosystems thinking to start maximising synergies.

Status	Hooks	Ecosystem approach principles
Actual	National Planning Policy Framework / National Planning Policy Guidance Paragraph 109 – value ecosystem services	1, 4, 5, 6, 10
Potential	Duty to Cooperate	2, 3, 7, 11, 12
Potential	Viability	4, 6
Potential	Localism	2, 7, 8, 12
Potential	Tools (regulatory and incentive)	1, 4, 6, 7, 8, 9, 10

The table above shows how, by focusing on key policy hooks in the built environment, we can cover all 12 principles of the ecosystem approach within new opportunity spaces to offer improved and additional insights into the operationalisation of these concepts.

So for example in Chapter 11 of the National Planning Policy Framework for England, paragraphs 109-118 recognise the value of ecosystem services making connections with ecological networks and connectivity and the role that green infrastructure can play. Here, there is an explicit link with the Natural Environment White Paper (also covering England). This offers opportunities for mapping ecosystem services from which you might then make planning interventions based on siting new housing and industry development using water regulation services or develop new market based instruments such as payments for ecosystem service schemes.

Within Scotland and Wales, however, there are different regulatory environments reflecting their different devolution pathways. Scotland's National Planning Framework 3 (Ambition Opportunity Place, 2013) recognises explicitly the value of ecosystem services within Chapter 3: 'A Natural Place to Invest'. Significantly a key step in the 2020 Challenge for Scotland's Biodiversity is to establish plans and decisions about land use based on an understanding of ecosystems, and to take full account of land use impacts on ecosystem services. Within Wales, the recent Environment Act White Paper 'Towards the Sustainable Management of Wales' Natural Resources' (Welsh Government, 2013) demonstrated a unique statutory duty towards sustainable development. Planning Policy Wales (2014) tends to use the ecosystem approach covertly through its planning principles and in particular through its focus on connectivity and asset-based approach. The current Wales Planning Bill (2014) provides an important opportunity for ecosystem thinking to become embedded in the built environment legislation. Thus, whilst the material below focuses explicitly on the England situation, the concepts resonate across the UK given the shared pursuit of sustainable economic growth.

The Duty to Cooperate (Localism Act 2011) requires planning authorities to consider strategic planning issues that cross their boundaries. Most attention with planning inspectors has been placed on housing markets but using ecosystem services we can start to factor in new geographies of, for example, flooding, climate change and biodiversity using existing/new partnership vehicles.

Within the NPPF, viability has focussed on economic issues associated with securing developer profit margins but, within ecosystem thinking, concepts of environmental thresholds and limits through ideas of natural capital can challenge the economic orthodoxy.

Ecosystem thinking can also help to expose operational limitations with current tools such as Cost Benefit Analysis where there is a failure to take a long term view beyond 25 years with the application of a suitable discount rate for environmental factors.

Unfortunately there still remains the elitist view amongst ecosystem 'messiahs' that other professions will simply adopt THEIR ecosystem thinking and hence little effort is put into translating its language into the hooks of other professions. Perhaps the most exciting opportunity here is the progress that can be made linking the NPPF explicitly with the Natural Environment White Paper through improved landscape-scale thinking; where LEPS meet LNPs. Current debates over city regions and biodiversity offsetting can be considerably enhanced when bringing in an ecosystem perspective, challenging the often simplistic media debates that normally ensue. The shared language of multiple benefits transforms the way in which the environment is viewed and valued, and we urgently need to boldly go into new sectors, understanding and using their languages, to maximise ecosystem service mainstreaming.

Further information

National Ecosystem Assessment Toolkit tree <http://neat.ecosystemsknowledge.net/>

Convention on Biological Diversity principles <http://www.cbd.int/ecosystem/>

Alister Scott's web page <http://www.bcu.ac.uk/built-environment/about-us/our-staff/alister-scott>

When talking to a young child, ecologists simplified their language, and used words that should be of interest to them. In contrast, for adults, technical terms such as 'biodiversity' and 'ecosystem' were often not explained. Participants appeared to assume that politicians and investment bankers would understand these words, an assumption that is, in reality, overly optimistic.

There was no consistency in explaining the link between biodiversity and ecosystem services, even to ecology students. If ecologists find no simple consistent answer to explain the link between biodiversity and ecosystem services, we can't expect others to understand it?

The first step ecologists (and others) need to take is to recognise that our communication needs to improve. We can then learn from media training, communication courses, and from reading well-tailored documents. We need to practice communicating and we must not be afraid to ask those unfamiliar with the terminology for feedback on whether key messages were received.

We must also consider our audiences carefully. This can be done by asking three simple questions before we start to speak:

- How much can we really expect them to understand?
- What will spark their imagination?
- What will make them care?

The use of language that can be understood by professionals from a range of sectors will improve communication about biodiversity and ecosystem services. Ecologists certainly need more consistency in their own understanding of the link between biodiversity and ecosystem services. They have important messages to deliver, and if these messages are not acted on both people and the natural environment will suffer. If ecologists – and others – can grasp that the message must be tailored to the audience's existing knowledge, this will help all sectors of society to better understand the relationship between people and nature.

This article is based on a longer one available at <http://www.nerc-bess.net/index.php/news-and-events/195-new-report-it-s-not-what-you-say-but-how-you-say-it>. It was originally published in the *In Practice journal of the Chartered Institute for Ecology and Environmental Management*.

Project profile

In each issue of *Ecosystems News*, we profile projects that feature on the Ecosystems Knowledge Network website. This time, we feature the South Pennines National Character Area, where Pennine Prospects and partners have been communicating the Ecosystems Approach to an urban audience.

South Pennines National Character Area

Communicating the importance of landscape to urban audiences

Pennine Prospects (The Southern Pennines Rural Regeneration Company) is an established cross sector partnership that champions the natural environment of South Pennines National Character Area (NCA). Mark Phillips of Natural England and Robin Gray of Pennine Prospects explain the many roles the South Pennines NCA can fulfil in the lives of local people, especially those within the extensive urban areas of Greater Manchester and West Yorkshire



Pupil from Colne Valley High School in the South Pennines © Bev Addy / Pennine Prospects

Development of a South Pennines Regional Landscape Park moves debate away from landscape designation towards an evolving programme of restoration which put an ecosystems approach into practice and at the heart of local communities. We have long understood the importance of our upland catchments for water supply and they are of national importance within the South Pennines NCA Profile. Increasing local knowledge and expertise in how upland habitats can store and sequester carbon is also gaining increasing recognition. So too is the role of the uplands in improving water quality and increasing flood resilience.



Mending a wall near Worsthorne © Pennine Prospects

Many of the catchments in the South Pennines are rapid response catchments which pose a high flood risk to local people and beyond. Dramatic flood events in 2012 have focused the local authorities and agencies to work more closely together in considering the role of upstream habitats within the wider catchments and the potential benefits of restoring degraded peatlands. Interventions like blocking drainage grips can have multiple benefits beyond biodiversity, including improved water quality and increased flood resilience. New research by the University of Leeds, studied a single headwater of the Calder Valley and identified how a significant reduction in peak flow (of up to 5 %) can be achieved by modifying vegetation close to streams and watercourses with benefits for wildlife and restoration of internationally important blanket bog habitat. <http://www.pennineprospects.co.uk/local/naturalflood+management>

It's essential in the South Pennines that such benefits of a healthy natural environment are communicated to a wider, mostly urban, audience. The Watershed Landscape Project managed by Pennine Prospects and funded by the Heritage Lottery Fund sought to do just that. The project aimed to encourage local people to think differently about their landscape to improve their understanding and enjoyment of this special place.

An interpretation plan was produced to guide our thinking in terms of communication not just to audiences that knew and loved our landscape but sought to reach out to audiences that did not necessarily engage. The key outcome was to take our message of the value of our landscape to our towns and cities using on-site interpretation, high quality publications and hands-on engagement with our audience.



Dovestone Reservoir © Pennine Prospects

Taking the story of our landscape to residents whom rarely visit the Watershed Landscape has been key to the success of the project. Local communities were engaged through projects based on science, archaeology and creative arts to help them understand the value of the landscape. This included how the moorlands have provided resources for our society in the past, such as water, coal or food, and their current and future roles, in particular the pivotal part this landscape can play in rising to the modern challenge of climate change issues such as flood management and carbon sequestration. More than 50 community groups have been involved in workshops and outings (over 2,000 individuals) and over 125 engagement events were organised. The Watershed Landscape moorland learning resources developed with our partners Lancashire County Council and United Utilities are being used to support learning inside and outside the classroom.

It is a belief that engaging and directly involving people from a range of communities, using a variety of techniques helps individuals develop a 'sense of place'. This is an approach enshrined within the European Landscape Convention acknowledging that 'landscape is an important part of the quality of life for people everywhere'.

Taking stock of payments for ecosystem services schemes

A review of the key findings from Defra's Payments for Ecosystem Services (PES) pilot projects was published in October 2014. 'Defra Payments for Ecosystem Services (PES) Pilot Projects: Review of key findings of Rounds 1 and 2, 2011-2013' provides an analysis of the lessons learned and challenges identified for developing PES schemes from rounds 1 and 2 of the pilot projects.



Defra commissioned 11 PES pilot projects during 2011 and 2013. The review of the pilot projects shows that many have made an important contribution to the growing body of evidence about how to deliver PES schemes. They have shown potential for the application of PES in many contexts, including catchment-based approaches to improving water quality, maintaining cultural and recreational services, and flood risk management. It has also been shown that PES is relevant for urban green infrastructure. A number of pilots have provided evidence on benefits and value for money assessments; important for making the business case for PES schemes.

The lessons learned from the pilots include the observation that schemes not solely focus on economic incentives. Rather they should be part of a wider strategy to build relationships between organisations that influence ecosystem service provision, or act as beneficiaries. It is also suggested that there is opportunity to align agri-environment schemes with wider PES opportunities.

It is acknowledged that a 'perfect' PES scheme may not exist, but it is possible to deliver 'PES-like' or 'quasi-PES' schemes, which incorporate some elements of a PES scheme. There is also the need to raise the profile of the value of natural solutions especially amongst businesses and local government.

A report by the Welsh Government, '*Assessing the Potential for Payments for Ecosystems Market Mechanisms Phase 2 - Evaluation and Recommendations Final Report*' (May 2014), draws upon the experience of the Defra pilot projects and other research to develop a framework for the introduction and evaluation of PES schemes in Wales. The report recommends that for PES schemes to be successful there should be extensive engagement with and contribution from stakeholders from the outset and significant early effort should be placed on generating momentum in the stakeholder community. This requires a concerted effort from the scheme facilitators and professionally facilitated stakeholder engagement.

The PES pilots review is available at <https://www.gov.uk/government/publications/payments-for-ecosystem-services-review-of-pilot-projects-2011-to-2013>

The final reports for the individual pilots are available at <http://ecosystemsknowledge.net/resources/programmes/pes-pilots>

The Welsh Government report is available at <http://wales.gov.uk/topics/environmentcountryside/consmanagement/green-growth-wales/9027971/?lang=en>

Natural Capital Committee report: opportunities to invest in nature



The State of Natural Capital report front cover

The Natural Capital Committee published its third 'State of the Natural Capital' report in January. The Natural Capital Committee is an independent advisory body set up to advise Government on the sustainable use of natural capital in England. The report, 'Protecting and Improving Natural Capital for Prosperity and Wellbeing', to Government summarises the progress made to date by the Committee and builds on two previous reports which valued changes to natural capital and assessed which benefits are at greatest risk in England.

This third report presents a series of potential environmental investments that offer good economic returns such as peatland restoration and woodland planting. These include, for example, the suggestion that planting of up to 250,000 additional hectares of woodland near towns and cities could generate net societal benefits in excess of £500 million per annum. A key area flagged up by the report is the health benefits obtained from urban natural capital (also called green infrastructure).

Although the report primarily makes recommendations to Government it recognises the role that private and non-governmental organisations play in protecting and improving our Natural Capital. The report recommends that Government should work with such organisations to produce a strategy and 25 year plan in order to meet its commitment to protect and improve natural capital within a generation.

More information about the Natural Capital Committee is available at <https://www.naturalcapitalcommittee.org/home.html>

The State of the Natural Capital reports are available at <https://www.naturalcapitalcommittee.org/state-of-natural-capital-reports.html>

Natural Solutions for Tackling Health Inequalities – local action by environmental practitioners

The Natural Solutions for Tackling Health Inequalities report, brings together the growing evidence that regular use of quality natural environments improves our health and well-being. However it acknowledges that there are differences in access to natural environments across England, which contribute to health inequalities.

Natural solutions for tackling health inequalities

Jessica Allen and Reuben Balfour
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Natural solutions for tackling health inequalities report front cover

Duncan Selbie, CEO of Public Health England, says: *“Recognising the role of the natural environment as a primary determinant of health is, in many ways, the foundation of modern public health. Good health and wellbeing is not solely the absence of illness; the role of the environment we live in is hugely important in shaping our lives and, consequently, our health”.*

The report's key recommendation is to 'improve local delivery of sustained and co-ordinated programmes'. It urges the natural environment sector to assist Health and Well-being Boards (HWBBs), Clinical Commissioning Groups (CCGs) and local authorities in England to fulfil their new duties and obligations in reducing health inequalities, and improve health and wellbeing outcomes.

It encourages HWBBs' Joint Strategic Needs Assessments, to focus on the amount and quality of natural environment in local areas and on population engagement, including future targeting of interventions at areas of greatest need.

Environmental practitioners are encouraged to use and share this evidence with partners, (particularly Local Nature Partnerships, Nature Improvement Areas partnerships, and Local Authorities), to highlight the importance to communities of maintaining and improving their local green spaces. Additionally, activity that builds greater awareness and use of the natural environment through teaching and school activities is a powerful motivator for children and young people to be more physically active beyond more traditional sporting activities.

The Natural Solutions for Tackling Health Inequalities report can be accessed at <http://www.instituteofhealthequity.org/projects/natural-solutions-to-tackling-health-inequalities>

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Linking nature and the local economy - toolkit for action

The Local Environment and Economic Development (LEED) toolkit is designed to help the Local Enterprise Partnerships throughout England to develop plans which take into account evidence about the importance of the environment to the economy. This allows them to maximise benefits from this relationship and minimise threats. The toolkit is also of interest to parallel economic development initiatives outside England.

LEED was co-developed by the Local Enterprise Partnerships and the Defra Network. Of the 39 Partnerships, 15 have now used the toolkit to support strategic economic planning and to build a shared understanding of their area with Local Nature Partnerships.

The Black Country Local Enterprise Partnership has used the LEED toolkit, and work following from it, to inform an Environmental Infrastructure Implementation Plan. Writing about the experience in 'In Practice', the magazine of the Chartered Institute of Ecology and Environmental Management, Neil Wyatt, the lead researcher writes, *"It forces environmentalists to view things from an economic viewpoint, and in doing so enables economists, planners, developers and other professionals working in regeneration to refine their understanding of environmental issues and develop new skills. Above all else, it is a framework for putting things into perspective, from which connections, priorities and actions become almost self-evident"*.

All the relevant documents are now available online for those considering using LEED – including examples, templates and example specifications. They can be found at <http://ecosystemsknowledge.net/apply/local-economy/LEED>

Managing the environment to improve human health and wellbeing

The Valuing Nature Programme (VNP) is a new five year, c£6.5 million research programme supported by several research councils (NERC, ESRC, BBSRC, AHRC) and Defra. It aims to better understand and represent the complexities of the natural environment in valuation analyses and decision making. It will consider the wider economic, societal and cultural value of ecosystem services, even where these have no perceived market value.



The next funding call will address the Valuing Nature Programme's goal of "Improving our understanding of the role biodiversity and ecosystem processes play in human health and wellbeing". Within this area, the research will be specifically focusing on the themes of: natural hazards and extreme events; the exposure of people to vector-borne diseases and marine toxins; and health improvements associated with urban ecosystems (green space).

The Valuing Nature Programme Coordination Team is asking for input to identify key research challenges and opportunities for different disciplines to work together. Responses will be used by funders of the Programme to contribute to the shaping of the call, which will be announced in May 2015.

Further information and a link to the questionnaire is available at <http://valuing-nature.net/news/2015/invitation-inform-vnp-health-wellbeing-research-call>