Embedding the value of the natural environment in decision-making - overcoming barriers and encouraging enablers

BRIEFING BY[1]
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The UK's natural resources

A healthy natural environment underpins our continued existence as humans, as well as our economic, social and cultural lives. The natural environment contributes through, amongst other things:

- Regulating floods, climate and other natural systems on which the stability of human well-being depends;
- Providing people with resources for food, shelter, energy production and construction materials;
- Giving opportunities for cultural experiences through visiting and using the natural environment for leisure and other activities.

The natural environment is a vital part of delivering many policy goals, such as on health, flooding, transport, culture, housing, agriculture and trade. The *services* provided by the natural environment are estimated to contribute billions of pounds to the UK economy, according to the UK's National Ecosystem Assessment (NEA) published in 2011[2].

The NEA remains one of the most comprehensive overviews of the state of the natural environment in any country; the United Kingdom is arguably an international leader in attempting to manage its natural environment sustainably. The UK government has indicated it is following an approach where benefits from the natural environment are

[2] UK NEA. 2011. *The UK National Ecosystem Assessment: Technical Report*. Cambridge, UNEP-WCMC

valued as much as human infrastructure[3], whilst in Scotland the natural environment is seen as a critical asset to support the well-being of current and future generations. Some statutory agencies in Scotland now have the responsibility to safeguard natural capital embedded in their remits, as a result of the Regulatory Reform Act. The priority given to this is shaping both research activity (e.g. to develop a framework for natural capital accounting) and policy-making (e.g. the Land Use Policy).

Ensuring that nature continues to provide services and benefits to society is premised on a healthy stock of 'natural capital', or "the elements of nature that produce value for people"[4]. But the NEA identified that the capacity of UK natural capital to deliver these services has declined dramatically over the last sixty years. This has happened despite the importance given to protecting and sustaining our environmental assets. Furthermore, according to the NEA, "we already have sufficient understanding to manage our ecosystems more sustainably and good evidence of the social benefits that would arise from doing so"[5]. Therefore, the implication is that benefits provided by the natural world to human well-being "are consistently undervalued in conventional… decision making"[6]. This undervaluation has been attributed in part to the institutional framework in which decision making occurs[7]. In other words, nature and its benefits are not always properly taken account of in current processes and arrangements that shape how organisations and individuals carry out their work. It is therefore critical to understand the factors that shape our ability to take account of the natural environment in decision-making.

This briefing
This briefing presents some common *barriers, or sticking points*, to more extensive consideration in decision making of the value of the natural environment to human well-being. It also presents some of the *enablers* by which such sticking points might be surmounted, and suggests steps for applying these general findings to particular contexts. It draws together a wide range of research carried out by a team within the UK NEA Follow-On (NEAFO) project, which reported in 2014[8], and informed by Scottish Government-funded research carried out by the James Hutton Institute[9].

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[3] Open Environment speech by The Rt Hon Elizabeth Truss MP, Secretary of State for Environment Food and Rural Affairs, 14 October 2015, at Defra

[4] NCC. 2013. *The State of Natural Capital: Towards a framework for measurement and valuation.* A report from the Natural Capital Committee, April 2013, p. 11

[5] UK National Ecosystem Assessment (UKNEA) 2014. *The UK National Ecosystem Assessment: Synthesis of the Key Findings.* UNEP-WCMC, LWEC, UK. p. 14

[6] UK NEA 2014, p. 5

[7] UK NEA 2014, p. 5

[8] Russel, D., Turnpenny, J., Jordan, A., Bond, A., Sheate, W., & Adelle, C. 2014. *UK National Ecosystem* Assessment *Follow-on. Work Package Report 9: Embedding an Ecosystem Services Framework in appraisal: Key barriers and enablers*. UNEP-WCMC, LWEC, UK

[9] Visit **http://www.hutton.ac.uk/research/themes/safeguarding-natural-capital/ecosystem-services** for further information. This work was funded by the Scottish Government RESAS Strategic Research Programme 2011-16.

NEAFO's purpose was to provide "new information and tools to help decision-makers...understand the wider value of our ecosystems and the services they offer us"[10]. NEAFO also sets out different *potential* uses of such information and tools, for example by government, government agencies, local authorities, NGOs, businesses and the general public. It also examines different potential ways this might be done, such as in National Accounts, planning authorities, and policy and project appraisals. The work on the NEA examined how, by whom, and in what institutional decision making contexts such value may be considered.

The research from the James Hutton Institute developed methods and approaches to understand the structure, function and interactions of Scottish ecosystems and how these can deliver human benefits on national, regional and local scales. This briefing is specifically informed by a strand of work that explored the opportunities and challenges for implementing the Ecosystem Approach[11].

Common barriers and enablers

Having 'sufficient understanding' of the natural environment does not necessarily mean that this knowledge will be used to inform decision making. Different institutions, decision making processes, sectors and decision support tools have to work to different time frames, different objectives, different capacities, different analytical processes and different boundaries. Any of these issues can act as 'sticking points' that impede adoption of new ideas.

Sticking points that can shape and constrain consideration of the value of the natural environment in decision-making – and 'enablers' to overcome these - are found at three main levels:

- *individual:* concerned with the individuals involved in decision-making within and outside of the environment sector, their behaviour and the resource constraints which bear upon them.
- *organisational:* including organisational procedures and management structures, systems of knowledge transfer, norms and incentive structures.
- wider *social and political context:* including broader societal and political values, norms and goals.

Examples of such sticking points and enablers[12] are summarised in the following Tables:

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[10] UKNEA 2014, p 5

[11] Visit **http://www.hutton.ac.uk/research/projects/ecosystem-approach-review** for information on this specific project exploring lessons learnt from UK experiences of implementing the Ecosystem Approach

[12] For a list of enablers by sector from the Natural Capital Initiative please see:
http://www.naturalcapitalinitiative.org.uk/wp-content/uploads/2015/12/NCI_Dialogue_on_Ecosystem_Approach_Report.pdf

Scale	Potential sticking points
Individual	- Difficulty in understanding the concepts underlying the value of nature - Difficulty in handling systems thinking and uncertainty - Limited awareness of the concept of natural capital, or the value of nature, outside of the environmental sector - Weak credibility of concepts - Unclear how concepts add to or complement existing practices and ideas - Inadequate resources - Time, money and workload - Data availability - Skills, training and guidance e.g. in facilitating stakeholder input or partnership working
Organisational	- Fragmented working across departments and levels of governance - Different legal requirements across decision-making levels and types (e.g. Legislation specifies fixed goals for aspects of natural resource management) - Inappropriate funding cycles and budget lines - Mismatch in priorities between organizations - Differing ideas about the type of natural environment knowledge to be used in decision-making - and the overall role of such knowledge - Lack of fit of new (types of) knowledge with existing daily work practices or mental models - Narrow focus on specific policy or decision rather than on how these interact with other policies - Weak leadership
Wider social and political context	- Underlying societal values, business and political priorities about what is important – which may not be aligned with natural capital protection. These values may be explicitly expressed or implicitly assumed. For example: - austerity - reducing regulatory burden - Different conceptions of what problems are intended to be solved with any particular policy - Different conceptions about why embedding knowledge on the value of the natural environment is important (e.g. protect particular environments, boost the influence of a particular organisation, send a political signal, encourage more joined-up thinking, enable communication and learning, bring in those with differing views) - Pre-existing interests shape natural resource management e.g. via control of land-management

Scale	General enablers
Individual	Incentivising and aiding individual decision makers: • Gathering more information formatted around the natural environment and the benefits it gives humans • Awareness-raising for policy makers from different sectors around the importance of the natural environment to human well-being and achieving cross-government goals, for example developing pilot projects • Deliver ongoing continued professional development courses that provide the relevant skills • Simplifying and tailoring the language of natural capital and valuing nature to suit different audiences • Undertake a gap analysis to identify 'missing sectors' in order to target guidance and information about the approach to individuals using 'their language'
Organisational	Shaping organisational operations to better engage with the value of the natural environment to human well-being: • Better integration of mechanisms and institutions to help join-up policy (e.g. inter-sector working groups, professional bodies, and cross-sector training) • Including the value of natural environments into existing institutional mechanisms and processes (e.g. piggy-backing on existing activities like public health policy, or through guidance for appraisal of the planning process) • Creating neutral spaces such as workshops and knowledge networks where actors from different policy sectors and governance levels can generate more integrated analysis and improve communication • Changing intra-organisation practices (e.g. job appraisals) to support including environment in all aspects of work • Reach out to non-traditional partners (e.g. other policy areas, other type of organisation)
Wider social and political context	Shaping the wider social and political context: • Stronger high-level leadership, with the support of institutional champions, to challenge accepted norms and priorities • Acknowledgement of the potential differing purposes of environmental analysis, and providing a platform through which to stimulate debate and enhance communication between different stakeholders • Using political 'windows of opportunity' such as floods, periodic media interest, or changes in government • Encouraging partnership between government, non-government and international bodies to promote consideration of natural environment in decision-making

How these findings may be used

The above are general findings based on extensive research across many different organisations, decision making processes and levels, sectors and decision support tools. For maximum practical applicability, they need to be interpreted and translated to particular decision-making contexts. One way to do this is to convene a workshop of relevant practitioners, and discuss:

- How do some of the general sticking points appear (if at all) specifically in each organisation present?
- Are there any other sticking points missed by the general findings?
- How do those sticking points appear in each organisation's work with other organisations?
- What potential 'enablers' and practical actions might be taken by participants' organisations, individually and together, to surmount the sticking points at different levels?

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