



**Scottish Natural Heritage**  
**Dualchas Nàdair na h-Alba**

All of nature for all of Scotland  
Nàdar air fad airson Alba air fad

## An Evaluation Framework for applying the Ecosystem Approach

The Ecosystem Approach<sup>1</sup> is a holistic and inclusive approach to looking after the natural environment. It is the primary framework for action under the international Convention on Biological Diversity (CBD). An ecosystem approach means working with nature for a healthy environment for people and nature. It should be applied to plans, policies and management that affect, or can benefit from, the natural environment. An ecosystem approach is:

*'a strategy for the integrated management of land, water and living resources that promotes conservation and sustainable use in an equitable way' (CBD)*

This framework provides a relatively simple way for anyone to evaluate policies, strategies, plans or projects that wish to apply the ecosystem approach. It can be used to help design new work or to reflect on work that is either on-going or has finished. It is intended for use by SNH staff, RAFF partners, or others involved in projects, strategies or other areas of work (involving land, fresh water or the marine environment) where we are seeking to apply or embed an ecosystem approach.

The CBD adopted twelve principles<sup>2</sup> that define the ecosystem approach. A plain English version of the principles can be found in the Annex below. They can be summarised within three broad headings or key principles: involving people; taking account of the services that ecosystems provide; and taking account of how ecosystems work.

The three key principles can be used as a framework for evaluation purposes. It is important that all three key principles are considered. Examples of the types of evidence that could be used to evaluate the principles are given in brackets.

**Involving people** - especially those who benefit from ecosystem services and those who manage them. This means valuing people's knowledge, helping people to participate, increasing collaboration and giving people greater ownership and responsibility. Public participation should go beyond consultation to become real involvement in decision-making.

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<sup>1</sup>Ecosystem Knowledge Network [http://ecosystemsknowledge.net/ecosystem\\_approach](http://ecosystemsknowledge.net/ecosystem_approach)

<sup>2</sup>Convention on Biological Diversity <http://www.cbd.int/ecosystem/principles.shtml>

### Key considerations

- Does everyone with a relevant interest in the natural environment have the opportunity to engage? (E.g. the use of best practice methods in participation, collaboration, stakeholder engagement plans, longevity of local involvement in governance).
- Have all types of knowledge and perspectives been gathered and shared to understand better our relationship with nature? (E.g. mapped and non-mapped information, surveys of stakeholders' knowledge and values).
- Are decisions led locally, as far as practical? (E.g. consider decision-making structures and make-up of decision-making bodies).
- Is decision making being shared amongst stakeholders who benefit from the ecosystem services? (E.g. make-up of decision-making bodies and governance structures).

**Taking account of the services that ecosystems provide** - such as **provisioning** (food, fuel and water), **regulating** (flooding and climate regulation) and **cultural** services (recreation, culture and quality of life) that ecosystems provide for people.

### Key considerations

- Have the three main types of ecosystem services been considered in the assessment process? (E.g. the use of the Ecosystem Services Framework<sup>3</sup>).
- Has appropriate account been taken of the value of nature itself as well as the uses that are made of it? (sometimes referred to as the 'intrinsic value' of nature).
- Have decisions considered the effects on services significant to stakeholders (local and national), and sought to resolve trade-offs and enhance synergies between services under different options? (E.g. options assessment using the ecosystem services framework).
- Do any economic incentives support the care and wise use of nature? (E.g. consider the effects of economic instruments).
- Have decisions been led by long-term objectives, as well as short-term ones? (E.g. consider timelines for vision and action plan objectives, acknowledgement that future objectives may differ from present ones).

**Taking account of how ecosystems work** - by recognising that ecosystems are dynamic and cut across the land and sea, which implies a need to consider the broad scale as well as the local; and the long-term as well as the immediate. And by making best use of available information, embracing adaptive management principles wherever possible and trying to sustain nature's multiple benefits.

### Key considerations

- Has the health of ecosystems been considered i.e. their structure and function necessary to sustain services? (E.g. the use of Ecosystem Health Indicators<sup>4</sup>).

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<sup>3</sup> Towards a common classification of ecosystem services <http://cices.eu/>

<sup>4</sup> Ecosystem Health Indicators For Scotland [www.snh.gov.uk/docs/A1308427.pdf](http://www.snh.gov.uk/docs/A1308427.pdf)

- Is nature being used within its capacity for renewal and sustaining services i.e. is management ensuring that acceptable limits for key environmental parameters are not being exceeded? (Consider using environmental limits, environmental standards e.g. for Water Framework Directive, air quality etc.).
- Has the right scale been chosen i.e. have boundaries and timescales been drawn to reflect natural as well as administrative processes and minimise adverse effects? (E.g. consider project boundaries mapped against catchment boundaries, habitat networks, coastal cells, landscape character areas or other relevant boundaries).
- Are decisions sensitive to changes in nature and flexible to adapt to these changes? (E.g. consider processes for monitoring and review).

The ecosystem approach helps us to consider our relationship with nature, however given the complexities of social and ecological systems then the evaluation of this approach will rarely be simple. Multiple sources of information will be needed, drawn from both natural and social science research and data. However, early scoping of the questions in relation to the objectives and scale (space and time) of the work should ensure that data gathering neither drives nor hinders the process. A range of spatial datasets is available via the Scottish Government's Data Directory<sup>5</sup>. Surveys / questionnaires are likely to be required to provide qualitative information, particularly whilst evaluating cultural services. SNH has published a Cultural Ecosystem Services Framework<sup>6</sup> to support consideration of cultural services. This was prepared by a working group involving a range of organisations.

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<sup>5</sup> Scottish Governments Data Directory

[www.gov.scot/Topics/Environment/Countryside/Landusestrategy/datadirectory](http://www.gov.scot/Topics/Environment/Countryside/Landusestrategy/datadirectory)

<sup>6</sup> Cultural Services Framework [www.snh.gov.uk/docs/A1882362.pdf](http://www.snh.gov.uk/docs/A1882362.pdf)

## Annex

A code in plain English for the management of nature and natural resources (aka 'The Ecosystem Approach')

The Ecosystem Approach is a product of the Convention on Biological Diversity. Its 12 principles amount to a universal code for the management of nature and natural resources. As such, it applies to all aspects of human activity which have any impact at all on the natural world (i.e. more or less everything). And it is valid at all scales – from the garden to the farm to whole landscapes, countries, geographical regions and indeed the whole world. This is not a 'pick-and-mix' set – it is important to observe and follow all 12 principles. Only then could we be confident that we are meeting our own needs without jeopardizing the ability of future generations to meet theirs. The following is a plain English version, adapted from the original technical version (<http://www.cbd.int/ecosystem/principles.shtml>).

- 1 We are all in the same boat**  
Acknowledge the rights of all to share decisions over the care of nature and natural resources.
- 2 Local is best**  
Allow decisions to be led locally, as far as practicable.
- 3 Think of others**  
Take care to consider the effects on others, including neighbouring ecosystems.
- 4 Only reward good practice**  
Use economic tools to support the care and wise use of nature, and avoid perverse incentives.
- 5 The health of ecosystems is paramount**  
Give priority to natural systems (and their long term benefits) above individual species.
- 6 Don't over-exploit**  
Keep any use of natural systems to limits well within their capacity for renewal/recovery.
- 7 Choose the right scale**  
Draw boundaries and timescales to match natural processes and minimize adverse effects.
- 8 Look well ahead**  
Treat long term stability as a key objective - not just short term benefits.
- 9 Be sensitive and flexible**  
Adapt the pattern of any use as natural systems change, both naturally and under pressure.

**10 Remember our place in nature**

Respect and value all nature – and for its own sake, as well as for the uses we can make of it.

**11 Value all knowledge and perspectives**

Gather and share information from all sources to understand our relationship with nature.

**12 Engage everyone**

Try to get the benefit of input from all relevant interests, at all levels, when making decisions.

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