

Scotland's Natural Capital Asset Index

2018 Summary

"The nation behaves well if it treats the natural resources as assets which it must turn over to the next generation increased, and not impaired, in value."

Theodore Roosevelt.

Key messages

1. Following decades of decline until the 1990s, Scotland's stock of natural capital has stabilised and is now at its highest level since 2000;
2. All habitats are increasing their contribution to human wellbeing; heath and peatland habitats have continued to recover since lows in 2012.

Results

Scotland's natural capital deteriorated historically until the 1990s. Most habitats were declining during this period, especially bogs and grassland. Evidence suggests that Scotland's potential to deliver ecosystem services has grown slightly over the past 15 years and now is now at its highest level since 2000, recovering from a low in 2012.

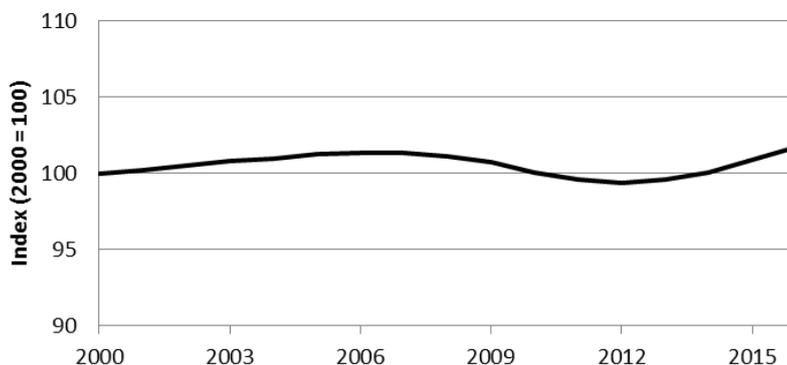


What is the Natural Capital Asset Index?

The NCAI is a composite index which tracks changes in the capacity of Scotland's terrestrial ecosystems to provide benefits to people. The Index does not include the marine environment. It is not a monetary value but is composed in a way which reflects the relative contribution of habitats to human wellbeing.

The capacity of ecosystems to provide benefits fluctuates over time due to changes in habitat quantity and quality. Habitat quantity is tracked using what we know about land cover change in Scotland. Habitat quality is tracked using 38 separate indicators which rely on datasets gathered by a range of public organisations and citizen science schemes

Overall Natural Capital Asset Index 2000 to 2016



The quality of all habitat types is now increasing although there are underlying trends within the habitats which are in part restricting the contribution to ecosystem health and human wellbeing.



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Trends in habitats and ecosystem services

Despite slight loss of agricultural habitats, cereal yields are on par with their highest ever yields despite fertilisers being at their lowest use. However the number of livestock units continues to decline. Growth in the overall index for grassland habitats is restricted due to loss of habitat through land use changes.

Woodland extent continues to increase: broadleaved woodland habitat is now 20% larger than in 2000. Woodland birds show some improvements. However, designated woodland features deemed to be in overall 'favourable condition' continues to decline.

Heathland and peatland habitats have recovered from lows in 2012, this is especially important considering heathlands are the most widespread habitats in Scotland and peatlands have a high potential to contribute to human wellbeing. Whilst these recoveries are encouraging they only mitigate some of the decline since 2000. The condition of peatland and heathland designated sites has begun to recover; upland bird species continue to decline.

Cultural services increased through increased interactions with the environment: outdoor visits are at their highest rate since 2000. Urban greenspace continues to be perceived as degraded, limiting the benefits people derive from nature in their neighbourhoods.

About the Natural Capital Asset Index

Natural capital is the environmental resources (e.g. plants, animals, air, water, soils) that combine to yield a flow of benefits to people.

Natural capital has historically been eroded by human activity, partly because it has not been properly valued compared with other types of capital.

The Natural Capital Asset Index (NCAI) helps us assess Scotland's prosperity: it tracks the capacity of Scotland's terrestrial ecosystems to provide the benefits that underpin our quality of life and that of future generations. Scotland's Economic Strategy recognises that investment in natural capital is, "fundamental to a healthy and resilient economy." The NCAI is included as a measure for the National Indicator 'Increase our natural capital' in the National Performance Framework.

There remain gaps in our understanding. Our knowledge of uplands outside of protected areas is limited. The NCAI is a good indicator of terrestrial habitats' contribution to wellbeing, but it does not account for Scotland's considerable marine habitats and does not demonstrate changes in biodiversity or a habitat's resilience to outside pressures. Some of these shortcomings can be assessed using the newly developed [ecosystem health indicators](#).

Future threats to Scotland's natural capital include invasive non-native species and climate change.



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Methodology

The NCAI uses ecosystem services to assess how nature contributes to the wellbeing of Scottish citizens

Ecosystem services are the range of benefits people can derive from the natural environment. These services are often grouped into three distinct categories :

- *provisioning*, for example of water and food;
- *regulating*, for example of climate or disease; and
- *cultural* contributions which include aesthetics and recreation.

The following Scottish habitats are included in the NCAI:

- Woodland
- Inland surface waters
- Coastal
- Grasslands
- Mires, fens and bogs
- Heathland
- Agriculture and cultivated

The index is set against a baseline year 2000 which is given the value 100.

The NCAI is a work in progress and efforts will continue to refine its methodology and data.

More information about the NCAI, including trends for all terrestrial habitats, is contained on our website. The NCAI model and technical guidance are also available.

Please get in touch if you would like further information.

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