Tool Assessor
Information Sheet

SENCE

Quick Facts

Inputs

GIS datasets, other data sources such as remote sensing to fill gaps

Outputs

Maps, statistics, diagrams and an interpretive report

Scale

Local, catchment, County, regional, national scale

Context

A range of land uses

Cost

The tool is a consultancy service from Environment Systems

Software required

None - the tool is run by Environment Systems. It is run using GIS software. A web map service is also available

Skills Required

None - the tool is run by Environment Systems

Developer

Environment Systems Ltd

Description

SENCE (Spatial Evidence for Natural Capital Evaluation) provides information to support evidence based decision-making on ecosystem services. It is based on the idea that any area of land is capable of contributing to one or more ecosystem services. That capability is based on factors including habitat, soil and geology, landform and hydrology, how land is managed and how it is culturally understood.

Ecosystem services included

19 ecosystem services across provisioning, regulating, supporting and cultural categories.

Habitats

Semi-natural grasslands, woodland, enclosed farmland, freshwater, wetlands and floodplains, mountains, moors and heaths, coastal margins, marine, and urban.

How does it work?

Based on biophysical indicators from multiple datasets, scientific knowledge is used to weight or score each factor to model ecosystem services. This results in a series of maps and layers designed to be integrated into a GIS, available as separate files or via a web map service.

Case studies in the UK

SENCE was used as part of the Scottish Borders pilot regional land use framework. It was used to identify the multiple benefits that come from planting native woodland, including natural flood management, biodiversity, water quality and soil carbon.

It was also used to map ecosystem services for Winchester City Council, where it determined the ability of land to retain water and reduce rainwater runoff.

Where can I get it?

http://www.envsys.co.uk/sence/