

# Farming with nature



## Natural capital case study

| Farming with nature    |         |                 |            |        |         |          |               |               |             |              |             |
|------------------------|---------|-----------------|------------|--------|---------|----------|---------------|---------------|-------------|--------------|-------------|
| Service                | Biomass | Timber and Peat | Recreation | Health | Climate | Flooding | Disease/Pests | Water Quality | Air Quality | Soil Quality | Pollination |
| Habitat                |         |                 |            |        |         |          |               |               |             |              |             |
| Semi natural grassland |         |                 |            |        |         |          |               |               |             |              |             |
| Farmland               |         |                 |            |        |         |          |               |               |             |              |             |
| Woodland               |         |                 |            |        |         |          |               |               |             |              |             |
| Freshwater             |         |                 |            |        |         |          |               |               |             |              |             |

### Summary

Farming is one of the most obvious examples of the services people derive from natural capital.

Workstream projects, including work on pollinators, holds benefits for farmland natural capital, though a monetary value is difficult to quantify.

Farming with nature supports and works to improve the value of farmland natural capital, affecting eleven service flows, across four of the NEA’s broad habitats, including flood mitigation, pollination and recreation.

### Natural capital contribution<sup>1</sup>

Farming with nature contributes towards the following UK figures:

- The £3.4bn annual flow of biomass across all habitats and an asset value of £88.7bn<sup>[1]</sup>

- £270m annual flow and £5.9bn asset value from timber<sup>[1]</sup>
- £6.6bn annual flow and £302.1bn asset value of recreation<sup>[1]</sup>
- £1.5bn annual flow and £103bn asset value of carbon based climate change mitigation<sup>[1]</sup>
- £1.9bn<sup>[2]</sup> flood prevention from UK woodland including £1.2m from Greater Lincolnshire woodland
- £1.2bn annual flow and £29bn asset value for protecting and improving soil quality<sup>[3]</sup>
- £69bn asset value of UK pollination<sup>[4]2</sup>

It also contributes to the asset value of the habitats it impacts, such as:<sup>3</sup>

- Farmland – UK £50.6bn<sup>[5]</sup>
- Woodland – UK £87.6bn<sup>[2][5]</sup>, Greater Lincolnshire £358m
- Freshwater – UK £39.5bn<sup>[5]</sup>

### Achieving more for nature

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## Table key

|  |             |
|--|-------------|
|  | Promotes    |
|  | Sustains    |
|  | Detrimental |
|  | Unknown     |

## Notes on methods

All accounts are partial or minimum natural capital accounts as not all service flows coming from the natural environment have been valued.

### UK service accounts

Taken from existing figures and presented as reported where possible.

Some services are the combination of different habitat specific figures from one or more publications.

### UK habitat accounts

Taken from existing figures and presented as reported where possible.

In some cases habitat asset values presented here are the sum figures from various publications where either a habitat value has not been published or if it was not inclusive of all service values available.

### Greater Lincolnshire habitat accounts

Based on the per hectare habitat value of UK wide figures, taking into account the area of the habitats found within Greater Lincolnshire. They are intended as an indicator of potential natural capital values and to highlight the importance of developing local accounts from scratch.

**For more information on methods please see the full natural capital report.**

## Sources

[1] Office for National Statistics (2018) *UK natural capital: Ecosystem service accounts, 1997 to 2015*. Statistical Bulletin.

[2] Ricardo Energy and Environment (2016) *Valuing flood-regulation services for inclusion in the UK ecosystem accounts*. ONS: Didcot

[3] Cranfield University. *Cost of soil degradation in England and Wales*. Defra: Cranfield

[4] Centre for Food Security (2015) *Sustainable Pollination Services for UK Crops: A BBSRC funded study*, University of Reading.

[5] Office for National Statistics (2017) *UK natural capital: ecosystem accounts for freshwater, farmland and woodland*. Statistical bulletin.

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<sup>1</sup> Habitats and services in both the tables and the 'Contribution' section have been presented in the order used in the National Ecosystem Assessment (2008). Due to this the services remain grouped with other relevant services in regards to 'provisioning', 'cultural' and 'regulating'.

<sup>2</sup> Asset based on a 50 year Net Present Value not 100 year, not assumed constant service values.

<sup>3</sup> Based on the ecosystem services which have had monetary values calculated and as such are minimum or partial accounts.