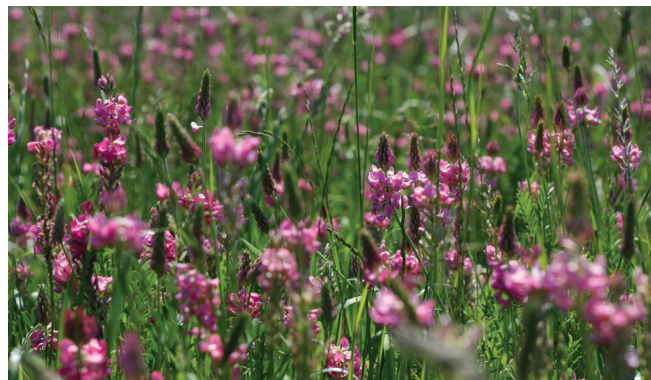


Cholderton Estate Natural Capital Account: An Illustration of How Good Farming Pays

“**Public money for public goods**” is a phrase popularised by the Rt Hon Michael Gove MP, Secretary of State for Environment, Food and Rural Affairs. It has been influential in the development of the 25 Year Environment Plan and the consultation for the new Agriculture Bill to deliver a green Brexit.

There is increasing understanding that public goods include soil health, water quality, greenhouse gas emissions reductions and enhancements to natural habitats and biodiversity. However, measurement of public goods and using this evidence in policy remains a challenge for the ongoing debate.



Sainfoin – fixing nitrogen from the air

We apply natural capital accounting to identify the public goods farming can produce. We use the 1,000-hectare **Cholderton Estate** as a test case. The Estate is a fully organic farming enterprise. It has eliminated the use of inorganic fertilisers and pesticides and is managed to maximise the diversity of plant, insect and bird species. The Estate also manages the Cholderton & District Water Company. Estimates for Cholderton are compared to ‘a typical (intensive) farm’ defined as one which also has 1,000 hectares for dairy, but which uses artificial fertilisers, has higher stocking densities and does not invest in soil quality and biodiversity.

Natural Capital Account Conclusions

We show that financial profits can be made at the expense of such public goods. However, continued damage to public goods can reduce productivity and profitability in future. This is why it's important to develop appropriate policies that can support both food production and the provision of public goods.

While the typical farm makes more financial profit due to higher stocking rates (and associated subsidies), it also causes significantly more damage to public goods. The public good benefits provided by Cholderton arise from avoiding inorganic fertiliser, lower stocking rates, and better soil management practices that improve carbon sequestration in soil.

It is not possible to express all public goods in monetary terms. This case is not an exception: in particular, the benefits of the farming practice in Cholderton in terms of range of wild flowers, grasses, insects and birds, and rare breeds are not captured in these monetary estimates but are shown in the full balance sheet.

The bottom line for Cholderton is a **benefit of £0.5 million** in present value terms over 50 years.

The bottom line for a typical farm is a **loss of £8.8 million** in present value terms over 50 years.

Policy Implications

Accounting for the negative repercussions for society alongside the positive food production of a typical farm, begins to build a clearer understanding of what sustainable food production might look like. The farming approach at Cholderton has produced a rich countryside teeming with wildlife within a productive and viable food production system that secures clean air, clean water, healthy microbial content to naturally fertile soil and supporting healthy ecosystems.

Future public funds can be used to support good farming practices by being more directly targeted to combinations of food and public goods, not one at the expense of the other. Natural capital accounting can serve as a useful tool for measuring and monitoring the provision of both private and public goods.

Reference information

Natural capital is the stock of physical assets that directly or indirectly produce benefits to people, including ecosystems, species, freshwater, land, minerals, the air and seas/oceans, as well as natural processes and functions. Some of the benefits are manifested in markets, such as food. Most others like clean air and good soil quality don't have direct manifestations and are provided for society free of charge, also known as **public goods**.

Natural capital accounts analyse data that show the links between natural capital assets and their public and private benefits.

	Answer these key questions to...	...generate these natural capital accounting outputs
1	What natural capital assets does the business own, or manage, or depend on?	Natural Capital Asset Register: Registry of all natural capital assets owned / managed / dependent on
2	What flows of benefits do the assets produce, both for the business and for wider society?	A statement of physical flows: Benefits in biophysical metrics
3	What is the value of the benefits and to whom do they accrue?	A benefit valuation statement: Benefits in monetary terms: data from markets (and financial accounts of the business) and the literature, and where monetary data lacks, in other indicators and qualitative narratives
4	What does it cost to maintain the natural capital assets and the flows of benefits?	A schedule of maintenance costs: Relevant activities and their costs
5	What's the net impact of the business on natural capital?	A natural capital balance sheet (Corporate Natural Capital Account): Sum of natural capital benefits over time minus the cost of maintaining the natural capital assets in a condition that generates the benefits.

The Natural Capital Accounts for Cholderton Estate is available upon request.

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This test case would not have been possible without the vision and cooperation of Henry Edmunds and Adam Lowe of the Cholderton and Merrick Denton-Thompson, the ex-President of the Landscape Institute.

