

# Local Natural Capital Accounting: A case study of Dartmoor and Exmoor National Parks

## sweep Impact Summary

This project improved the knowledge and capacity of Dartmoor and Exmoor National Park Authorities relating to Natural Capital Accounting approaches and methods, and continues to inform their thinking and plans. The critique of issues stemming from applying national level 'standard' guidance at the sub-national local level, was included in the government's revised Enabling Natural Capital Approach (ENCA) guidance and informed a Defra Environmental Land Management Scheme Test and Trials project.



Haytor, Dartmoor

**1st** set of Natural Capital Accounts developed for **2** National Parks



Valued natural capital and ecosystem services for **1646km<sup>2</sup>**



**10** recommendations in Briefing Note guidance adopted into ENCA



### Ways of Working



### Why it mattered?

In 2017, the UK's National Parks were encouraged to develop Natural Capital Accounts (NC Accounts) as part of the [Glover's Landscapes review: National Parks and AONBs](#). The government's Natural Capital Committee also advocated the same: in support of the 25 Year Environment Plan ambition "the UK intends to use a natural capital approach" to enable local decision makers to be "equipped with the tools they need to assess the benefits that come from their land and water assets so they can use them most effectively".<sup>1</sup>

Despite the existence of international guidance<sup>2</sup> and national recommendations<sup>3</sup>, specific guidance was not available for developing NC Accounts at a local, sub-national scale at that time; something acknowledged at the time in the government's own [Enabling a Natural Capital Approach \(ENCA\): Guidance report](#) and the [2019 Sixth Natural Capital Committee report](#).

This SWEEP project originally set out to work with Dartmoor National Park Authority (DNPA) and Exmoor National Park Authority (ENPA) to help them build sets of NC Accounts. As it became clear that there were serious deficits in data required to build NC Accounts at a local level, the project switched focus to provide DNPA and ENPA with

a critical assessment of the usefulness of NC Accounting as a tool to inform decision-making for environment-facing organisations, at the local level.

Key questions critiqued were:

- Are large-scale approaches to NC Accounting appropriate at a smaller scale?
- How sensitive are local NC Accounts to variability in the quality and availability of data and changes in methods and assumptions?
- Given that sensitivity, how useful are NC Accounts as a strategic planning tool for land managers?

### What we did

During 2017-2019, the SWEEP team – Dr Michela Faccioli, Dr Sara Zonnevald, Prof Brett Day and Prof Charles Tyler, based at University of Exeter – worked collaboratively with staff from DNPA and ENPA to:

- Build NC Accounts for both National Park Authorities (NPAs) following the 'standard practice' approaches adopted by environmentally-facing organisations.
- Compare outputs from the 'standard' approach, with outputs from methods more consistent with the formal rules of NC Accounting applied to detailed local data.

- Build capacity within both NPAs to understand and produce NC Accounts, including around decision-making about natural capital assets, ecosystem services focus, and data provisioning.

Outputs from the SWEEP work include:

- Local Natural Capital Accounting: does it deliver useful management information? A case study of Dartmoor and Exmoor National Parks. November 2019. [Full Report](#) to Exmoor National Park Authority and Dartmoor National Park Authority, with Extended Summary.
- [Academic paper](#) published in Journal of Environmental Management, Volume 327, 116272
- [SWEEP Briefing Note](#) (May 2021), Local Natural Capital Accounting: does it deliver useful management information? A case study of Dartmoor and Exmoor National Parks.

This Briefing Note made 10 recommendations to improve the effectiveness of NC Accounting as a management tool generally, but also specifically for environmental organisations such as NPAs operating at a sub-national scale.

<sup>1</sup> 25 Year Environment Plan

<sup>2</sup> System of Environmental-Economic Accounting, SEEA

<sup>3</sup> ONS/ Defra Principles of Natural Capital Accounting

## Impacts & benefits delivered



### Attitudinal

#### Developed knowledge and understanding:

both Dartmoor and Exmoor NPAs benefited from an improved understanding of NC Approaches and Accounting methods. Over 200 people attended presentations organised by DNPA.

#### Improved national Enabling Natural Capital Approaches (ENCA) Guidance:

SWEEP reporting was included as a formal Case Study in Defra's influential [ENCA Guidance](#) (Aug 2021 revision).

#### Informed Dartmoor ELMs Test and Trial:

Known as the Dartmoor Hill Farm Project, this ELMs Test and Trial explored the [feasibility of using a Natural Capital Approach for local priority setting and landscape-scale planning](#). SWEEP findings were central to a critique of issues in the context of Dartmoor, with a focus on: (1) issues around data gaps, resources for monitoring and land access issues affecting data gathering; and (2) lack of guidance for sub-national approaches, especially in relation to biodiversity and peat, being two of Dartmoor's most significant NC Assets.



### Organisational function

**Built capacity within the NPAs:** through the process of co-creating NC Accounts with each Park, the SWEEP team helped build staff capacity.

#### Met government's ambition for NPAs

**developing NC Accounts:** NC Accounts were developed for both Dartmoor and Exmoor NPA for 2015. However, their limitations restricted the way in which the information could subsequently be used by the NPAs to inform decision-making (see Table 1).

#### Informed Exmoor National Park

**Partnership Plan 2018-2023:** The [Mid-term progress report \(Nov 2021\)](#) of ENPA's five-year Partnership Plan, setting out joint ambitions and strategies required to maintain the special qualities of the park, included a Case Study (Section 47) on the SWEEP 'Local Natural Capital Accounting' work.



*This was a really useful piece of work bringing together academic expertise and specialist staff at the National Parks. We entered into this process to develop a robust natural capital account for the National Park. We hope the learning from this Project can be shared to improve the tools available and ensure a consistent approach."*

**Ally Kohler, Director of Conservation and Communities, Dartmoor National Park**



*It's really useful to see research like this from the ground. The SWEEP work will add to the body of evidence that helps to inform Defra on how to implement the recommendations of the Glover Landscapes Review, in particular integrating better nature and climate targets, and natural capital accounting, into protected landscape management plans."*

**Amy Chadwick, Team Leader, Environmental Outcomes in Protected Landscapes, Defra**



*The SWEEP project delivered a rigorous and robust assessment of natural capital accounting in the National Park. With an expectation that the natural capital approach will form the basis of our future planning and decision-making. I feel it's very important we feedback the learning to Government in order to improve the processes and tools."*

**Clare Reid, Head of Strategy and Performance, Exmoor National Park**



Wimbleball Lake, Exmoor National Park



Ecologist studying the Rhos Pasture on Dartmoor



	Exmoor National Park	Dartmoor National Park	
	Provide improved information to feed into the State of the Park report	Provide improved information to feed into the State of the Park report	
	Provide input into the Environment Land Management Schemes (ELMS)/payment for farming e.g., by putting value on provided ecosystem services.	Explore the use of Natural Capital accounting for investment decision-making e.g., when needed to prioritise between choice of two management/restoration options.	
	Land ownerships/land holdings: understand best use for land owned by Exmoor National Park.	Leverage funding/justifying spending. Understanding the monetary value resulting from e.g., a restoration project, and use this knowledge to leverage money for cost of project.	
	Use to show where (data) gaps are in decision-making.	Influencing management decision-making, e.g., increasing amounts of stock which are shown to have high value.	

Table 1. Natural Capital Accounting aspirations at start of project: Indicator of whether initial expectations were met and use for decision-making. (green = initial aspirations were met; orange = partially; red = could not be met). Source: Faccioli, M., Zonneveld, S., Tyler, C., Day, B. (2019). Local Natural Capital Accounting: does it deliver useful management information? A case study of Dartmoor and Exmoor National Parks. November 2019. Report to Exmoor National Park Authority and Dartmoor National Park Authority.

## Looking to the future

The data gaps identified in this project led to the development of a new SWEEP project – ‘Enabling more sustainable landscape management through the co-creation of novel remote-sensing tools for mapping woodlands, moorlands and key habitats’.

This project co-created novel remote sensing tools to map, monitor and enhance the South West’s natural landscapes. They are supporting quicker, less costly and more effective decision-making by those tasked with managing the South West’s vitally important natural resources. More details on this project can be found at <https://sweep.ac.uk/project/023/>.

For more information contact [sweep@exeter.ac.uk](mailto:sweep@exeter.ac.uk)



Standing Stone, Dartmoor

## Organisations we’ve worked with



**EXMOOR**  
NATIONAL PARK

### About SWEEP

The South West Partnership for Environmental & Economical Prosperity (SWEEP) is a partnership between the University of Exeter, the University of Plymouth, and Plymouth Marine Laboratory. Funded by the Natural Environment Research Council and stakeholders together to solve key challenges faced by those working with our natural resources. [www.sweep.ac.uk](http://www.sweep.ac.uk)

