

Exmoor & Dartmoor National Park carbon footprint assessments

Small World Consulting

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Input on presentation: Mike Elliott, Net Zero Carbon Landscape Lead, Cotswolds National Landscape

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Introduction (1/2)

- **Part of a major and complex project**
- Builds on 10+ years of work with the Lake District
 - Consistent approach for all National Parks to estimate emissions & set targets
 - Very hard to be accurate – did the best we can given current data
 - Results are sufficient for taking immediate action
- **What do we include?**
 - Consumption-based footprint + some territorial emissions
 - Subset of emission to set targets

- **Criteria for choosing emissions to set targets**

- Can they be influenced by local authorities & their partners?
- Are they simple enough?
- Could progress be tracked?

- **A few notes on the targets**

- Blend between consumption & territorial emissions
- Reflection on unique characteristics of each National Park
- Equal level of ambition for all National Parks
- Broadly compatible with 1.5°C target from the Paris Agreement

Major challenges and opportunities for protected landscapes



Cutting emissions in line with cutting-edge research



Being land stewards and planning authority leaders



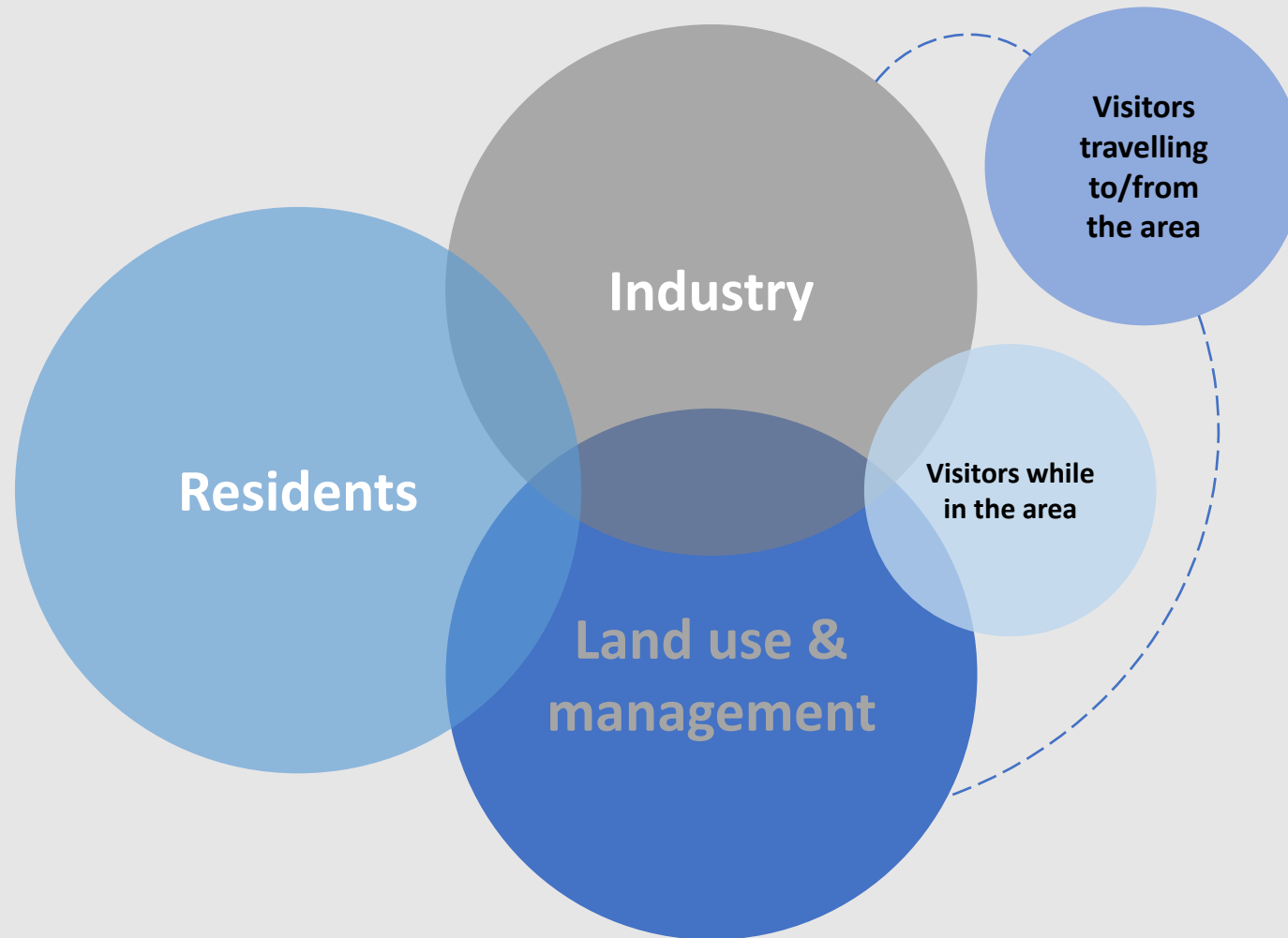
Creating better places to live, work and visit



Adopting and scaling up land use measures

- Woodland creation
- Peatland restoration
- Regenerative agriculture
- Renewable energy production

Assessment boundaries

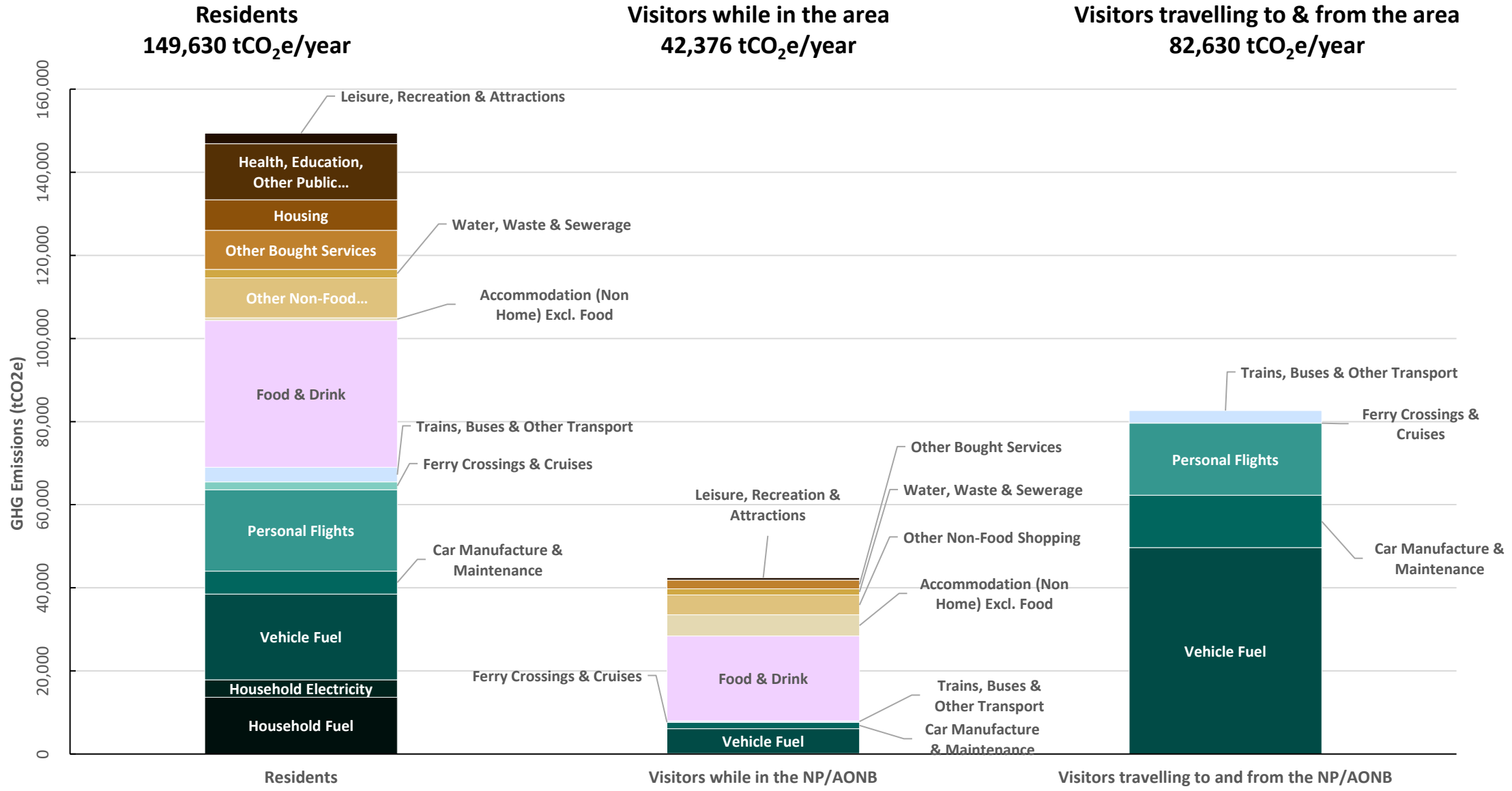


Key Stats: Exmoor & Dartmoor National Parks

Exmoor							
	values	units	sources		values	units	sources
Land Area	69,400	ha	Official Figures / CEH LCM	Annual Visitors All Types	1.46	million persons per year	STEAM 2019
Resident Population	9,581	persons	ONS Mid-2019 LSOA Population; ONSPD 2019; BEIS 2019 Postcode Electricity Meters; Custom Postcodes	Average Visitors Per Day	6,350	persons	STEAM 2019
Resident Population Density	0.14	persons per ha	Based on the Above	Visitor Population Density	0.09	persons per ha	Based on the Above
Annual Final Consumption (Households + Public Services)	£34,253	£ per person per year	ONS 2019 Consumption; ONSPD 2019; ONS 2011 Census Demographics; Custom Postcodes	Percentage of Visitors Staying Overnight	21.2%	percentage	STEAM 2019
Annual Business Turnover, COA-based	£0.27	£ billion per year	IDBR 2019; ONSPD 2019; Custom Postcodes	Average Visitor One-Way Road/Train/Boat Mileage Travelled	143	miles	Visitor Survey
Estimated Through Traffic Share of the Major Roads' Traffic	49.6%	percentage	BEIS 2018 Road Fuels; DfT AADF 2019 Traffic Counts; ONSPD 2019; Custom Postcodes; STEAM 2019	Estimated Fraction of Trips by Car	80.4%	percentage	Visitor Survey
				Estimated Fraction of Trips Involving Flights	6.9%	percentage	Visitor Survey

Dartmoor							
	values	units	sources		values	units	sources
Land Area	95,300	ha	Official Figures / CEH LCM	Annual Visitors All Types	2.58	million persons per year	STEAM 2019
Resident Population	37,237	persons	ONS Mid-2019 LSOA Population; ONSPD 2019; BEIS 2019 Postcode Electricity Meters; Custom Postcodes	Average Visitors Per Day	9,413	persons	STEAM 2019
Resident Population Density	0.39	persons per ha	Based on the Above	Visitor Population Density	0.10	persons per ha	Based on the Above
Annual Final Consumption (Households + Public Services)	£33,130	£ per person per year	ONS 2019 Consumption; ONSPD 2019; ONS 2011 Census Demographics; Custom Postcodes	Percentage of Visitors Staying Overnight	11.7%	percentage	STEAM 2019
Annual Business Turnover, COA-based	£1.12	£ billion per year	IDBR 2019; ONSPD 2019; Custom Postcodes	Average Visitor One-Way Road/Train/Boat Mileage Travelled	108	miles	Visitor Survey
Estimated Through Traffic Share of the Major Roads' Traffic	47.8%	percentage	BEIS 2018 Road Fuels; DfT AADF 2019 Traffic Counts; ONSPD 2019; Custom Postcodes; STEAM 2019	Estimated Fraction of Trips by Car	80.4%	percentage	Visitor Survey
				Estimated Fraction of Trips Involving Flights	4.9%	percentage	Visitor Survey

Exmoor



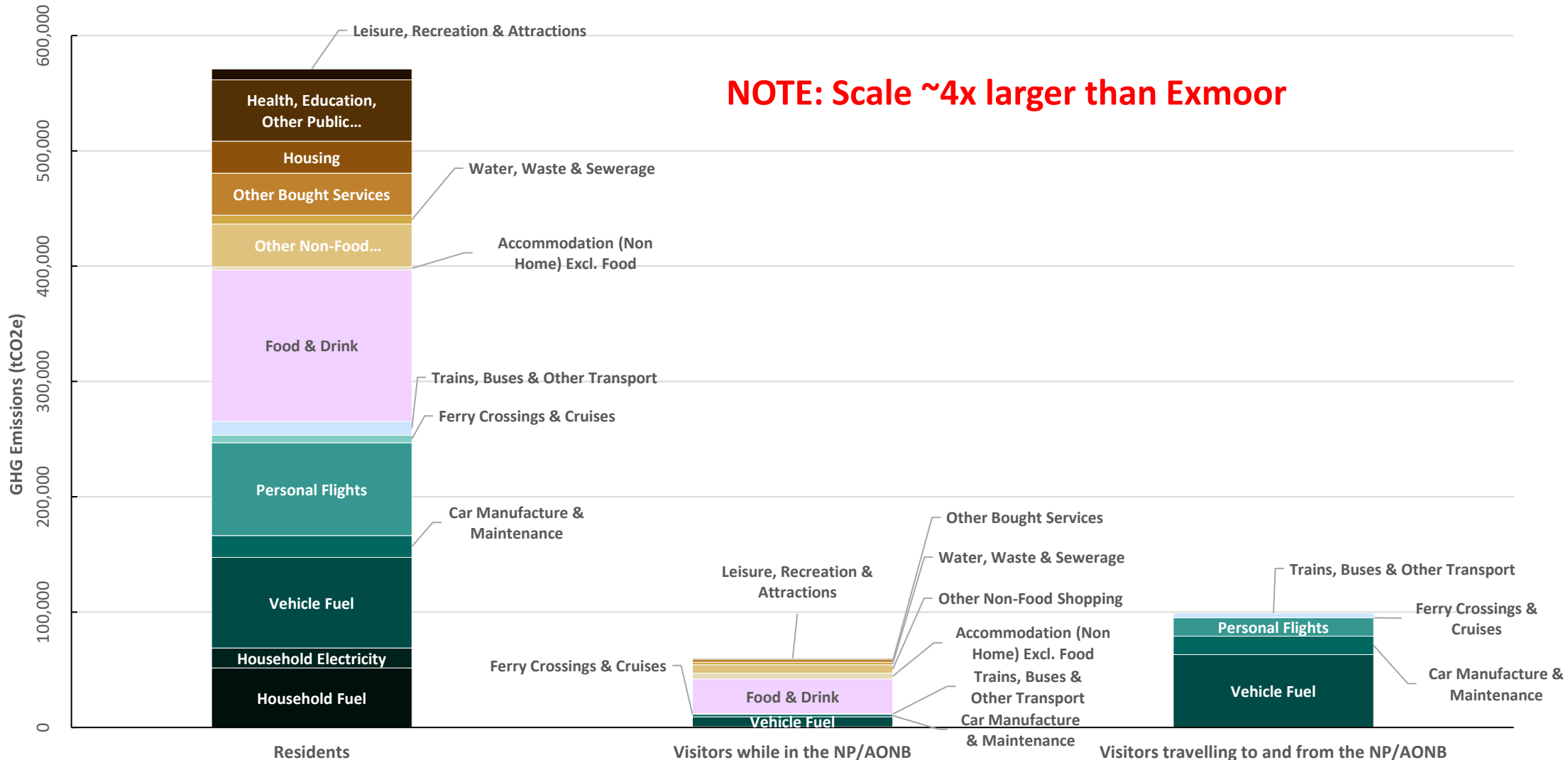
➤ Consumption-based GHG emissions for Residents and Visitors

Dartmoor

Residents
570,905 tCO₂e/year

Visitors while in the area
60,054 tCO₂e/year

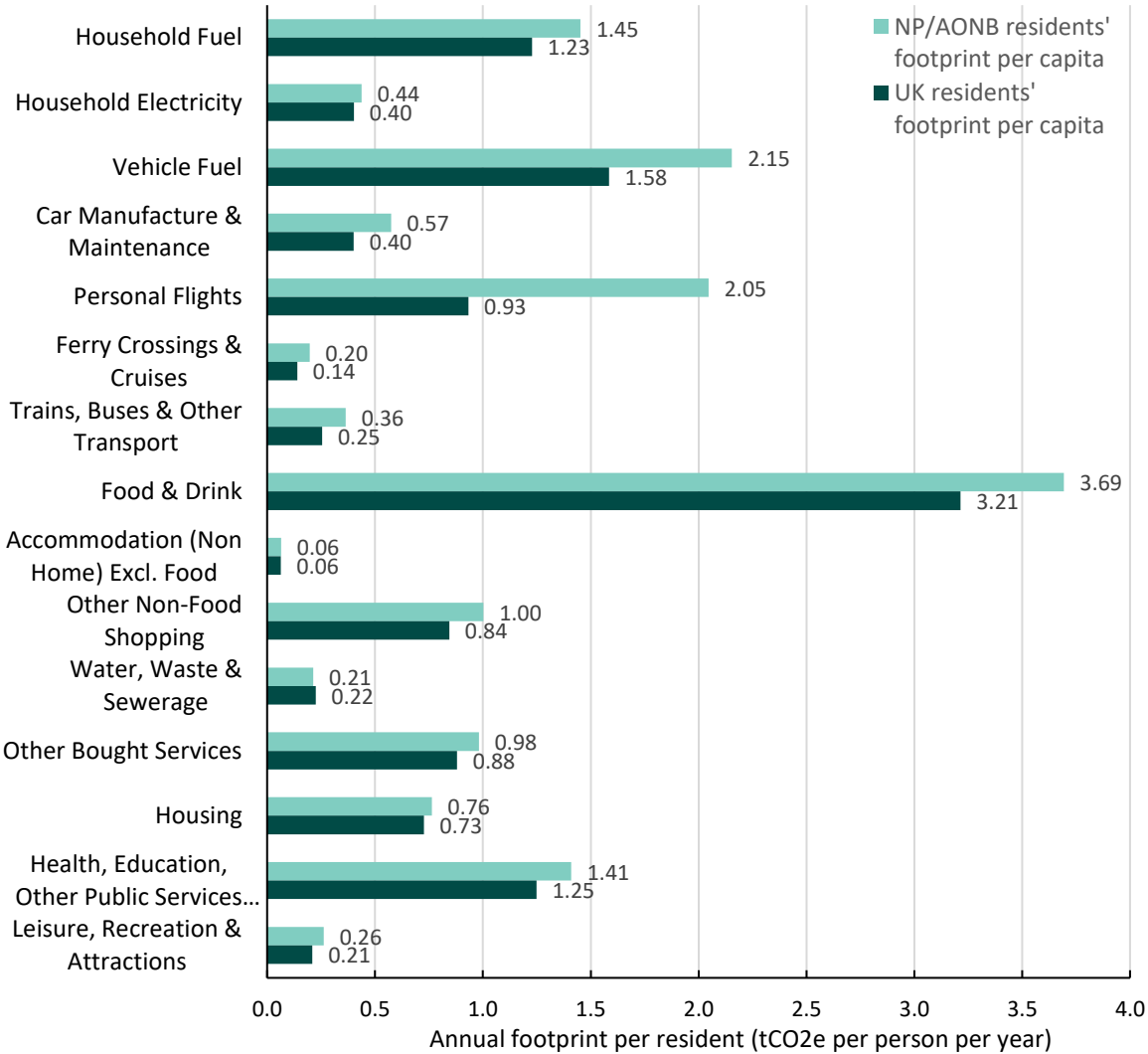
Visitors travelling to & from the area
99,107 tCO₂e/year



➤ **Consumption-based GHG emissions for Residents and Visitors**

Exmoor

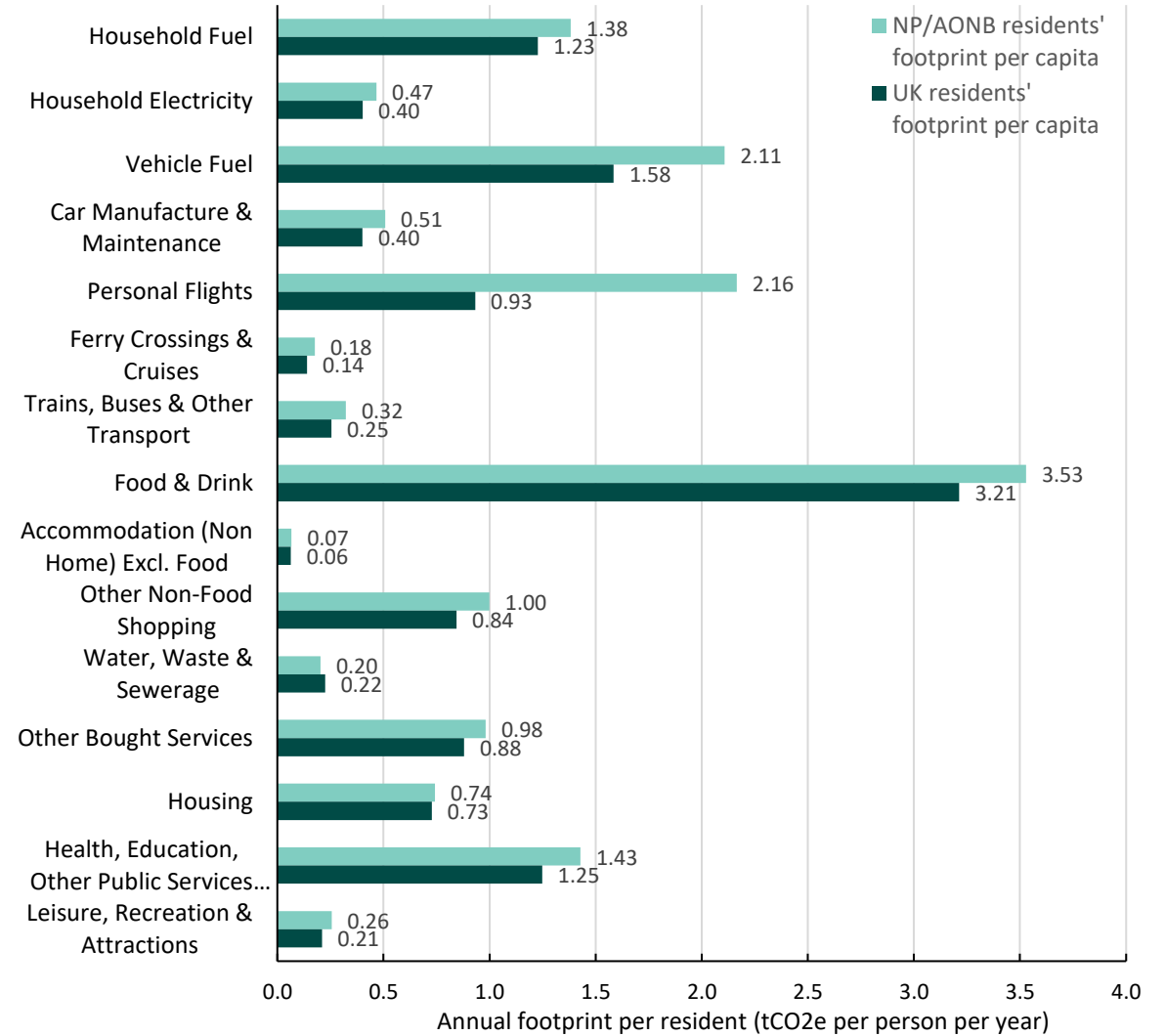
**Residents' Total
15.6 tCO₂e/year
per capita**



**UK Total
12.4 tCO₂e/year
per capita**

Dartmoor

**Residents' Total
15.3 tCO₂e/year
per capita**



➤ **Residents' GHG emissions compared with UK national average per capita, by category**

Six priority areas for emission reductions



Energy-only GHG

Residents, visitors, industry
(incl. supply chain)



Travel to/from the area

Visitors
(excl. flights, incl. car
manufacturing)



Food & drink

Residents, visitors



Land-based non-CO₂

(e.g. livestock, fertiliser use)



Non-food shopping

Residents + visitors
(incl. car purchases)

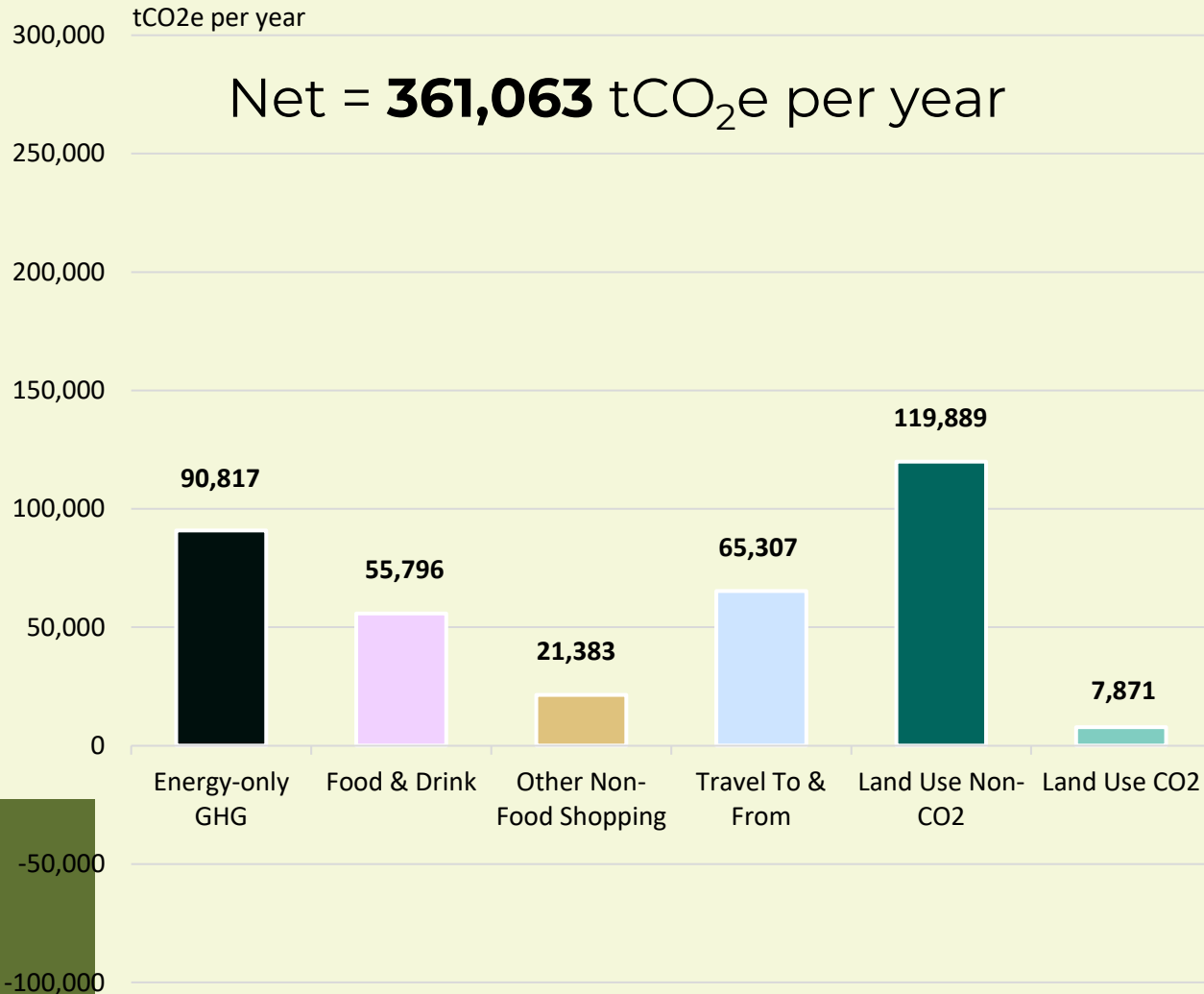


Land-based CO₂

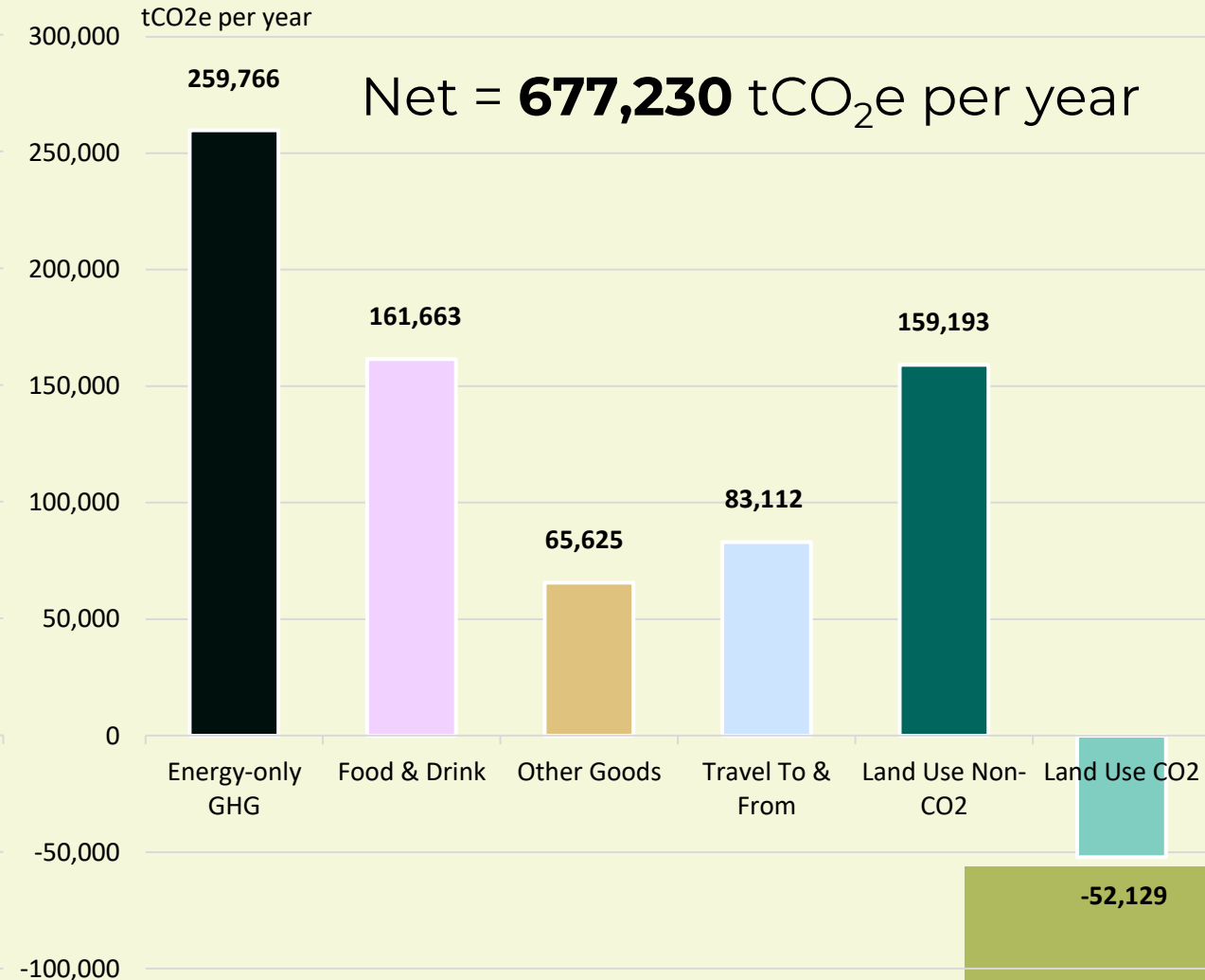
(e.g. sequestration, soil
degradation)

2019 baseline emissions

Exmoor

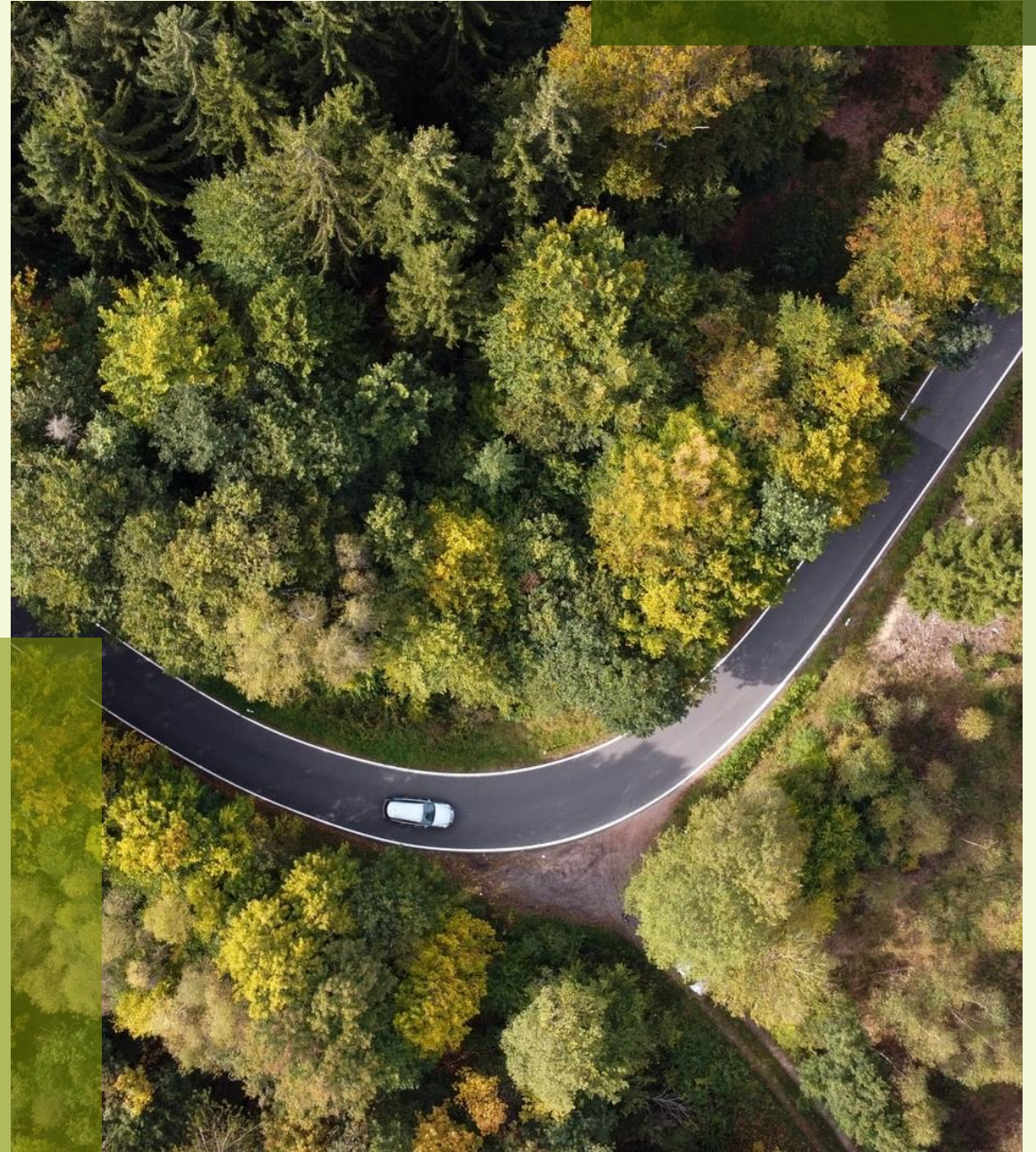


Dartmoor



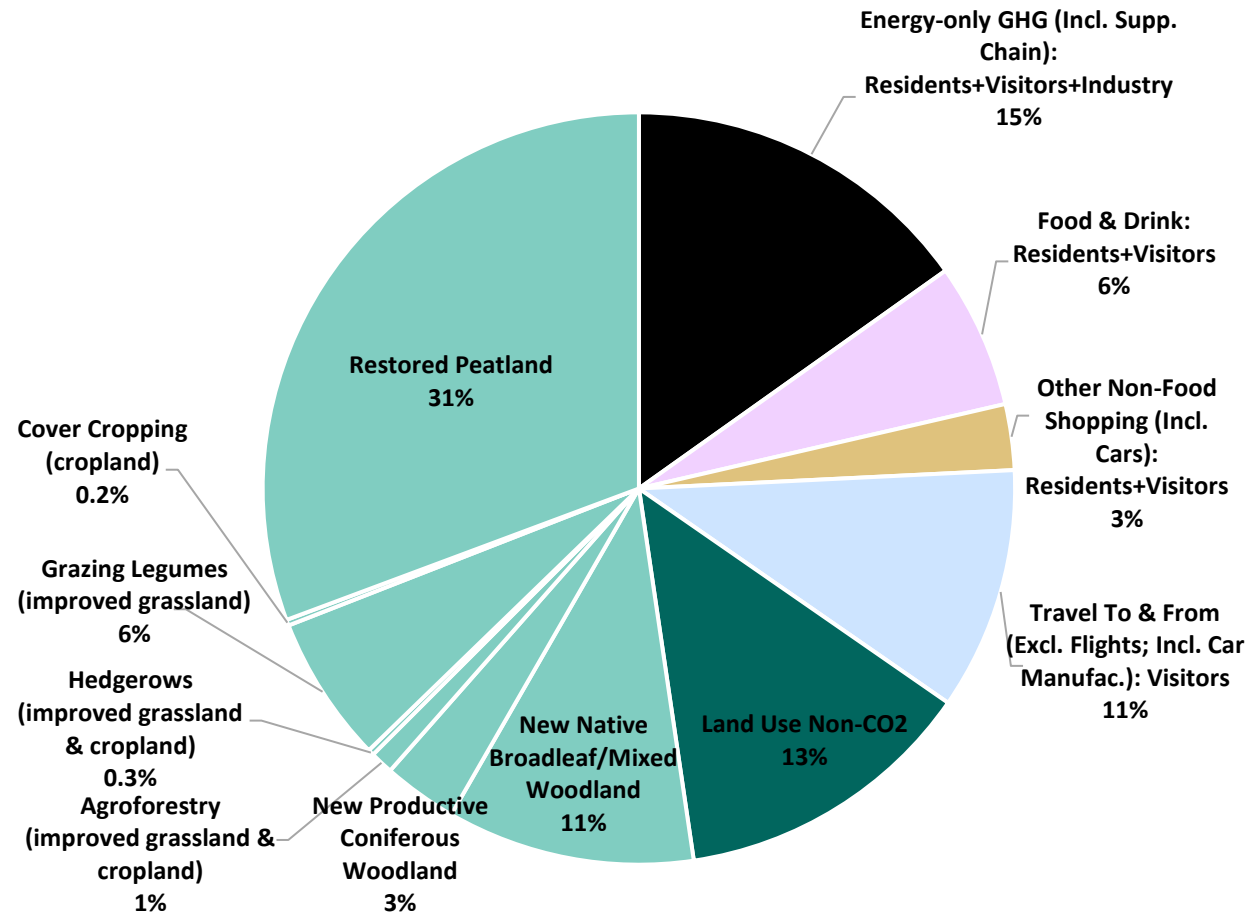
Emission reduction & carbon sequestration targets

- Derived from science-based assessments, including:
 - UK's Sixth Carbon Budget
 - Tyndall Carbon Budget Tool
 - UK's National Food Strategy
 - UNFCCC Paris Agreement
- Proposed emissions reductions / carbon sequestration targets require **immediate, ambitious action** to be taken across ALL six emission categories

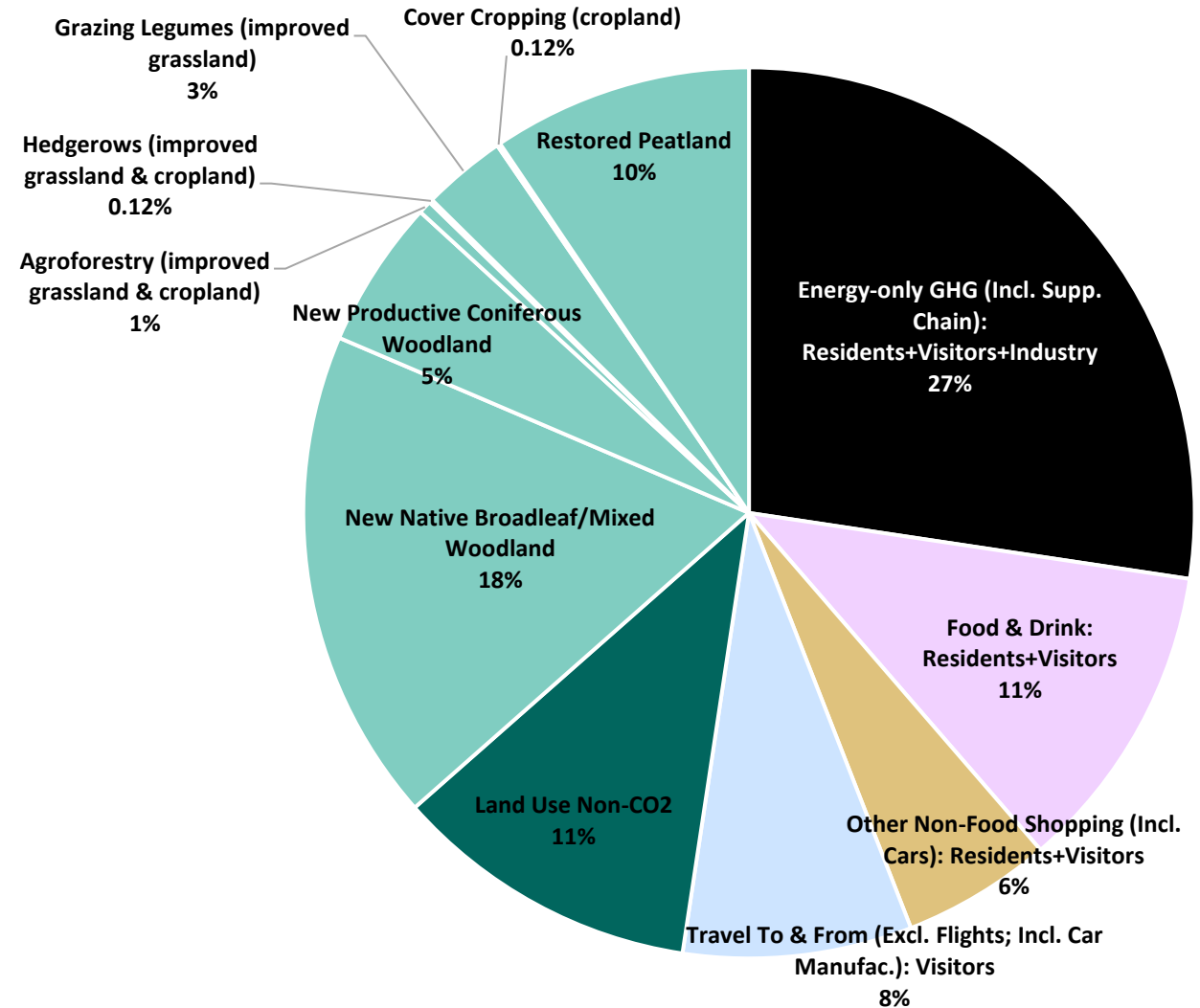


Target changes in emissions between 2019 and 2050

Exmoor

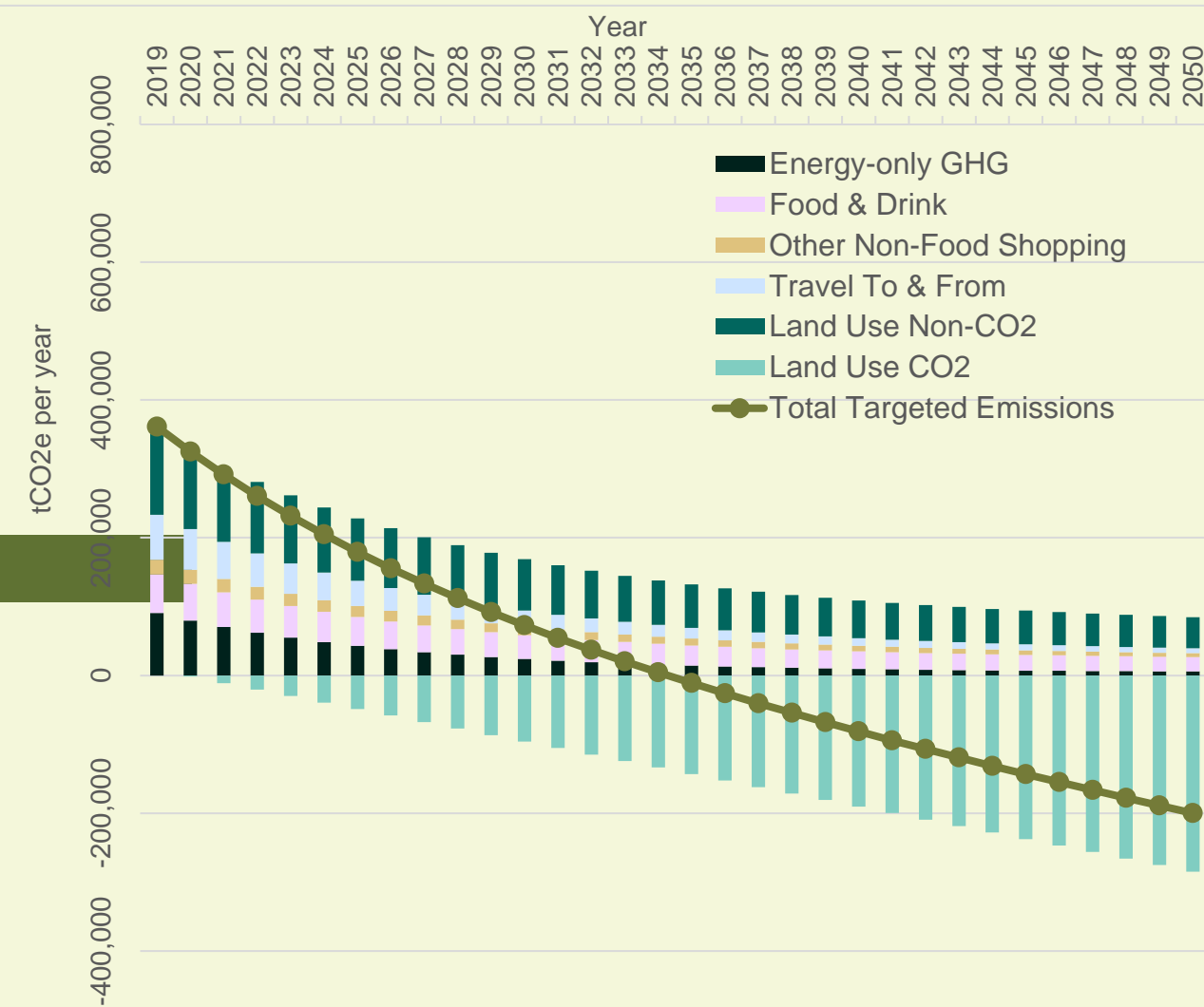


Dartmoor



High-end Net Zero pathways

Exmoor



Dartmoor

