

The Grassland Gap – is flower-rich grassland the poor relation compared to other farm habitats? (England)

Herefordshire Meadows – Feb 2024



Contents

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- Ancient Grasslands
- Nitrogen
- Plantlife's policy asks
- Policy & practice



The Haystack

Robert Louis Stevenson

Through all the pleasant meadow-side
The grass grew shoulder-high,
Till the shining scythes went far and wide
And cut it down to dry.

Those green and sweetly smelling crops
They led the waggons home;
And they piled them here in mountain tops
For mountaineers to roam.

Here is Mount Clear, Mount Rusty-Nail,
Mount Eagle and Mount High;--
The mice that in these mountains dwell,
No happier are than I!

Oh, what a joy to clamber there,
Oh, what a place for play,
With the sweet, the dim, the dusty air,
The happy hills of hay!



The Art of Observation.com

Who are Plantlife

- Founded in 1989, + 20,000 members and many more supporters
- 24 nature reserves; 4,500 acres across England, Scotland, Wales and the Isle of Man
- Board of 12 trustees, c. 90 staff across the UK, and c. 1,500 volunteers
- Species-rich grassland, temperate rainforest, nitrogen, species recovery, peat-free horticulture
- Global Strategy for Plant Conservation and initiation of Important Plant Areas (IPAs) across the world



Projects

- **Save Our Magnificent Meadows** - 3460 ha restored/created
- **Magnificent Meadows Cymru** - 222 ha & 58 community meadows
- **Coronation Meadows** - 'designated' in every county. Recent review: 101 receptor meadows created, of which some are now donor meadows
- **Green Recovery Meadow Makers** - 396 ha
- **NE Species Recovery Programme:** Juniper and Pasqueflower reintroductions e.g. working to restore Pasqueflowers on 36% of the hectares where they occur in England
- **National Highways Meadow Makers programme**- funding to deliver 132 ha
- **Road Verge Campaign**
- **Resilient Grasslands (Wales)** – new partnership, delivering on protected sites across Wales
- **24 nature reserves** - all with grassland habitat



What's in a name?

'improved' grassland



or



Species-rich / semi-natural

'Species-rich grassland is open, grassy habitat that is normally maintained by traditional grazing and cutting methods. Grassland is species-rich if it has:

- *more than 15 plant species per square metre*
- *more than 30% cover of wildflowers and sedges (excluding white clover, creeping buttercup and injurious weeds)*
- *less than 10% cover of white clover and perennial rye grass'*

[Maintain species-rich grassland - Farming \(blog.gov.uk\)](https://www.blog.gov.uk/2011/05/10/maintain-species-rich-grassland-farming/)

*'Bullock et al (2011) describe semi-natural grasslands as the 'remnants of habitats created by **low-intensity, traditional farming**, or, in some cases, the **natural vegetation on poor soils**'*



Figure 2-2:
Word-cloud showing common grassland terminology



Regular management
(mowing and/or grazing)

Vegetation structure

Wildflowers

Other wildlife

Pollinators

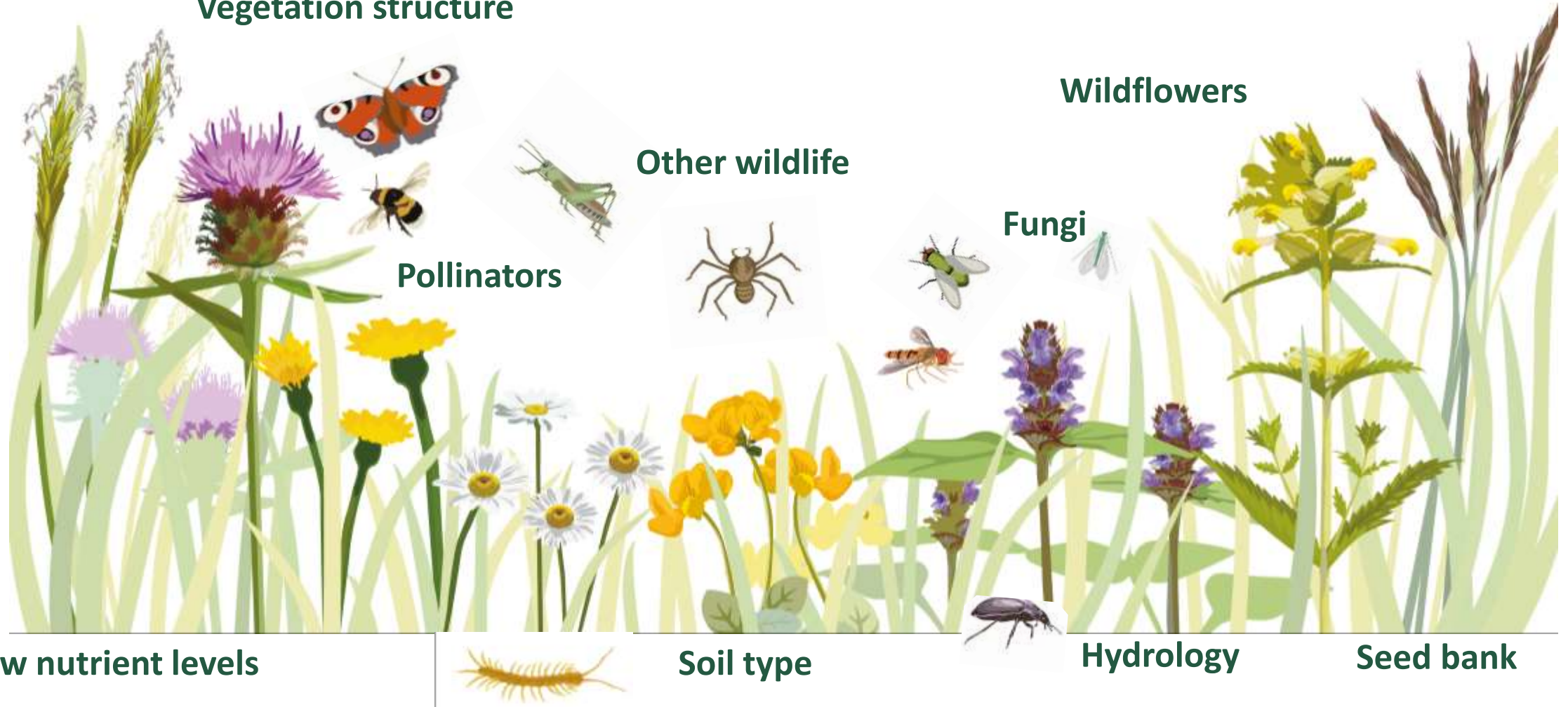
Fungi

Low nutrient levels

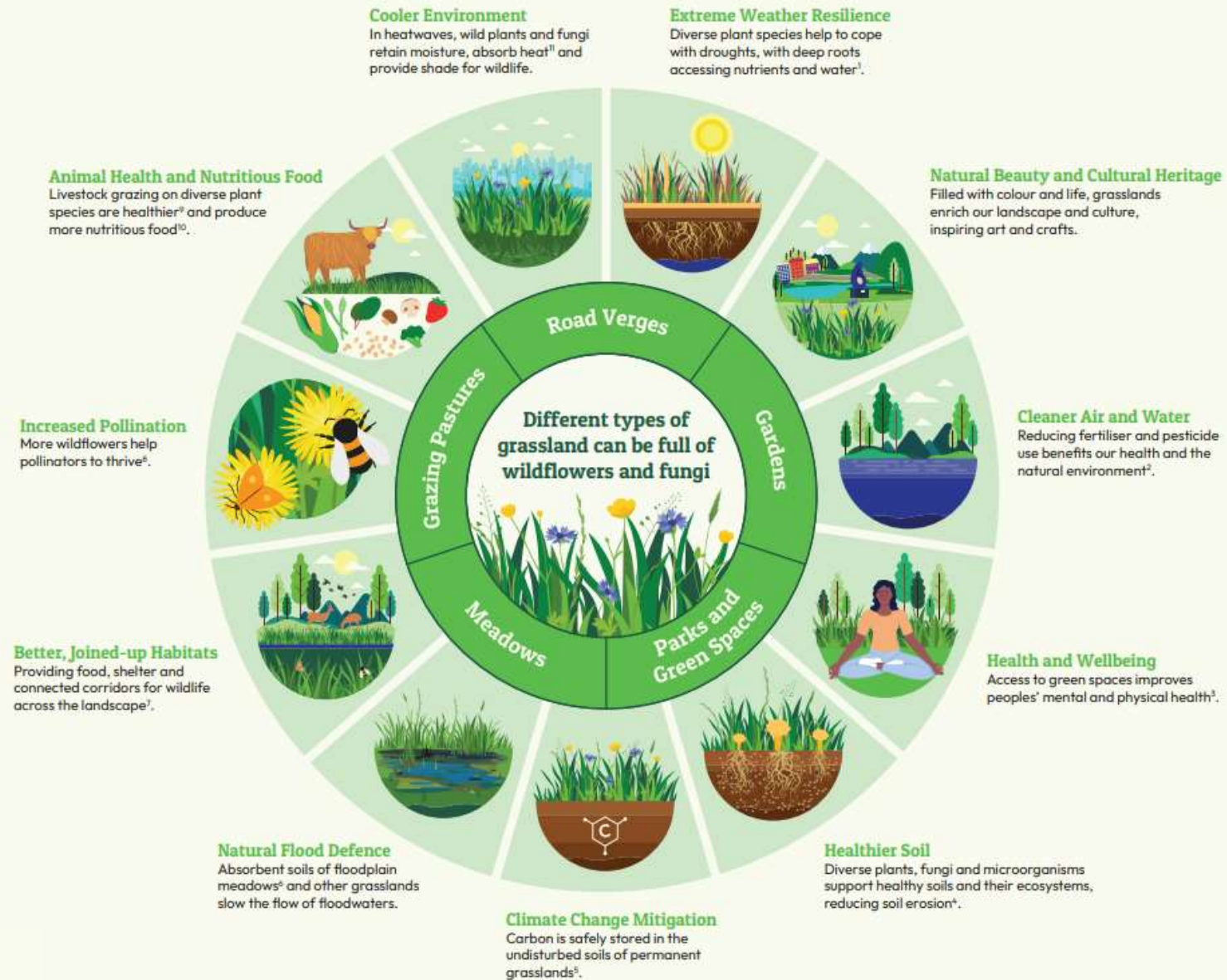
Soil type

Hydrology

Seed bank



Benefits for people, nature and climate



The 'grassland gap'...

Policies set out in existing UK Government Action Plans

	Trees & Peat	Grasslands
Dedicated resource in Department for Environment, Food, and Rural Affairs (DEFRA), working on deliverables in the habitat Action Plan	☑	✗
Monitoring and mapping, with an up-to-date National Inventory, driving better spatial targeting of funding for restoration and habitat management	☑	✗
Pilot scheme and/or Taskforce to test evidence, supporting the development of a natural capital approach to valuing habitats	☑	✗
Recognition as a Nature-based Solution to climate change, for example in the UK's National Adaptation Programme or funding in the Nature for Climate Fund	☑	✗
Development of private biodiversity and carbon markets, for example through a Carbon Code	☑	✗

Environmental Land Management Scheme (ELM) agri-environment funding actively incentivises the wide-scale uptake of options for habitat maintenance, restoration, and creation	☑	✗
Incentivising private investment for flooding mitigation schemes, such as Sustainable Drainage Systems (SuDs)	☑	✗
Robust protections in the planning system, for example through 'Ancient Woodland and Trees' legal definition	☑	✗
International action and funding to restore biodiversity and lesson impact of climate change, via Biodiverse Landscapes Fund	☑	✗

Strategic approach to grasslands: Grassland Action Plan

- **Strategic policy, legislative and funding coherency to manage a national asset over the long-term**
 - Shared evidence base and monitoring → guides decision-making
 - On a par with Tree and Peat Action Plans
- **Protection of existing species-rich grassland from inappropriate development, tree planting**
- Realise untapped potential as a **nature-based solution** in climate mitigation and adaptation strategies
- **Private & public funding for farmers & land managers** support management of semi-natural grassland
- **Public and private investment to drive market opportunities**
 - BNG, carbon markets, green infrastructure innovations, green jobs, native & local seed supplies
- **Sustainable management of green infrastructure**



Call for a Grassland Action Plan for England

August 2023

Plantlife Briefing

Limited Defra resource for grasslands

Natural Environment, Trees & Landscapes	Bella Murfin
Edward Barker	Forestry, Woodlands & Tree Planting
Richard Pullen	Rachel Bailey
National Biodiversity	Environment
Anna Sargeant	Governance & Corporate
General Licensing & Gamebirds Review	Si�n McGeever
Naomi Matthiessen /	Access, Landscapes, Peatland & Soil

Blog

Forestry Commission

Search blog

Organisations: [Forestry Commission](#)

Defra's Trees and Forestry team – looking back at a busy year

Forestry Commission

The Forestry Commission is responsible for protecting, expanding and promoting the sustainable management of woodlands.

[Read more about us](#)

Bella Murfin and Naomi Matthiessen, 30 January 2023 - [Tree Planting](#), [Woodland creation](#)

Trees and Woodlands Scientific Advisory Group

The Trees and Woodlands Scientific Advisory Group (TAW-SAG) provides independent advice to support woodland creation and improve woodland management.


Department for Environment Food & Rural Affairs

**National Pollinator Strategy:
Pollinator Action Plan, 2021 to 2024**

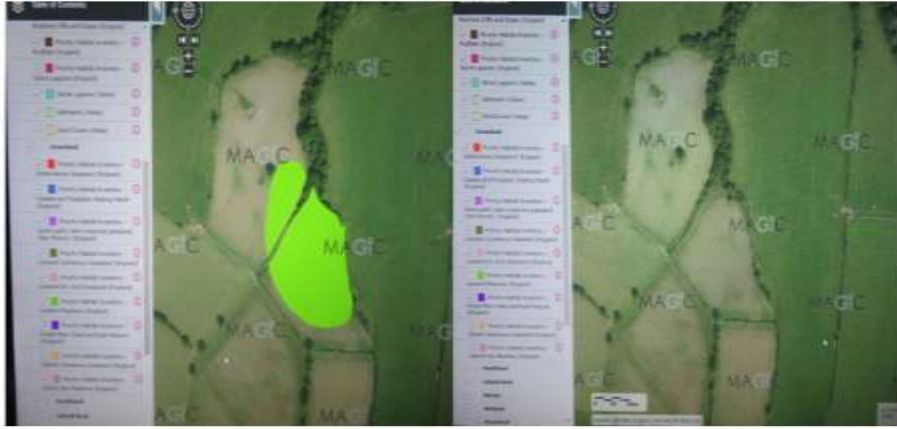
May 2022

Policy paper

Lowland Agricultural Peat Task Force Chair's report: government response

Published 29 June 2023

Monitoring & mapping



Example of data being out of date; what was apparently Lowland Meadow in 1991 but you can see clearly from the photo has since been ploughed up.

"It is clear from the review of the grassland statistics that are readily available for each UK nation that the **blurred boundaries between habitat classifications, the absence of habitat condition data and the lack of a consistent baseline or long-term monitoring programme that it is almost impossible to produce reliable figures** to justify the current quantification of the decline in area and quality of grasslands in the UK. There is no **doubt that large declines have occurred**, but characterising these in a common language is extremely difficult." - *Plantlife Review of Trends in Grasslands across the UK report*

"The process of mapping inventories in England rounds areas up to parcel level, is **based on old survey data so doesn't reflect recent changes, and takes a broader definition of 'grassland'** – including partially degraded and less species rich grassland than would be considered for designation. Overall, this leads to an **overestimate of Priority Habitat cover in England.**" - [correspondence](#) between Martin Allen & Defra officials

Review of trends in grasslands across the UK

REVIEW OF TRENDS IN GRASSLANDS ACROSS THE UK

Prepared for: Plantlife International
Client Ref: 424.064694.00001

SLR Ref: 424.064694.00001
Version No: V3.0
June 2023

SLR 

Extent, declines & datasets

Table 3-5:

Land Cover Map 2020 summary data relating to grassland extent in the UK in 2020

	Semi-natural grassland as a proportion of country land cover	Improved grassland as a proportion of country land cover	All grassland as a proportion of country land cover
England	5%	32%	38%
Wales	23%	42%	65%
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Northern Ireland	20%	39%	59%
United Kingdom	11%	29%	40%

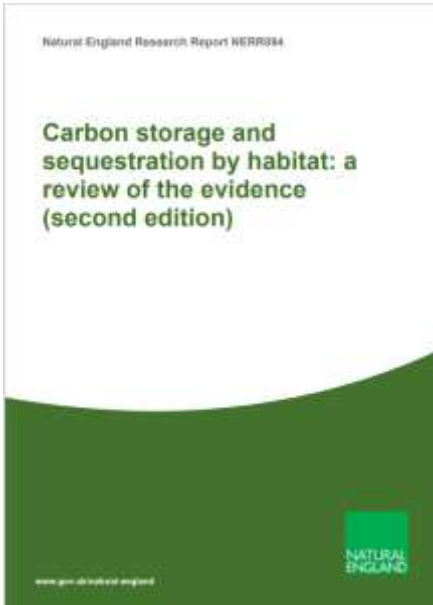
Table 3-4:

Metadata collected for dataset catalogue for grasslands

Information	Example
Dataset Name	<i>Land Cover Map</i>
Source Organisation	<i>Centre for Ecology and Hydrology</i>
Classification of Grassland Types	<i>Acid, Neutral, Calcareous</i>
Accessibility (i.e. available for public download)	<i>Yes</i>
Licence Restrictions	<i>Non-Commercial Use</i>
Temporal Resolution (Year represented in dataset)	<i>2021</i>
Spatial Resolution / Minimum Mapping Unit	<i>10m</i>
Coverage	<i>England, Scotland, Wales and Northern Ireland</i>
Repeated Surveys Over Time	<i>Yes</i>

1. The dataset should detail **coverage of specific grassland types** (e.g. Acid, Neutral or Calcareous Grassland);
2. The dataset should **cover habitats on a national level** (e.g. England, Scotland, Wales or Northern Ireland); and
3. The dataset should be part of a **collection** which are **comparable over time to assess change**.

Programme of evidence building needed



3.3.7 Evidence gaps and future needs

There remain significant evidence gaps with regards to semi-natural grasslands and their carbon stocks and sequestration. The most comprehensive assessments of semi-natural grassland soil carbon in the UK are the Countryside Survey, which last reported in 2007 and Ward and others (2016) who reported findings based on management intensity rather than grassland type. Greater distinction is required between semi-natural grassland types and their location in the landscape, for example upland vs lowland systems, and their interaction within semi-natural habitat mosaics. Evidence is especially lacking for calcareous grasslands.



 **minette batters** @Minette_Batters · Jan 5
Credit where it's due to @DefraGovUK I've been critical of the lack of value in **species rich grassland**; delighted that the payment rate now reflects the incredible biodiversity & sequestered carbon benefits of grass.

Soon to be backed up by the brilliant work @wakehurst_kew 🌞

 **Defra UK** @DefraGovUK · Jan 4
The biggest upgrade to the UK's farming schemes since leaving the European Union has been set out by the Environment Secretary @SteveBarclay at the 🗣️@OxfordFarming Conference today.
Swipe for some of the key updates below [gov.uk/government/new...](https://www.gov.uk/government/new...)
[Show more](#)



'...improving the resolution of data and incorporating greenhouse gas flux, soil and mycorrhizal (fungal) data into calculations, giving a more accurate reflection of the carbon stored in woodland and grassland habitats.'

Evidence base: reports

Reports and Supporting Information

Call for a Grassland Action Plan for England

This briefing covers how Plantlife and its partners are calling on the UK Government to make the most of grasslands and commit to developing a Grassland Action Plan for England'

[Download](#) ↓

Grasslands as a Carbon Store

This briefing highlights the value of grasslands as stable carbon stores in order to make the case for action by policy makers, researchers and land managers to protect these grasslands.

[Download](#) ↓

Report: Review of Trends in Grasslands Across the UK

A review of the extent of semi-natural and/or species-rich grasslands in the UK, exploring trends over time and between nations.

[Download](#) ↓

Report: Valuing the Vital: Grassland Ecosystem Services in the UK

This report offers a review of existing literature and evidence on the numerous advantages associated with species-rich grasslands.

[Download](#) ↓

Grasslands as a carbon store



Plantlife

July 2023

**Grasslands as a
Carbon Store**

Grasslands: Carbon Sequestration: Carbon Storage in Plant Biomass and Soil Organic Carbon

Over-grazing, some non-native plants, and tilling cause losses to vegetation above and below ground.

Soil respiration returns carbon to the atmosphere through oxidation as a result of erosion and loss of plant cover

Managed grazing can build soil carbon by stimulating root growth

Vegetation fixes atmospheric carbon through photosynthesis. Deep rooted plants distribute carbon to soil organisms

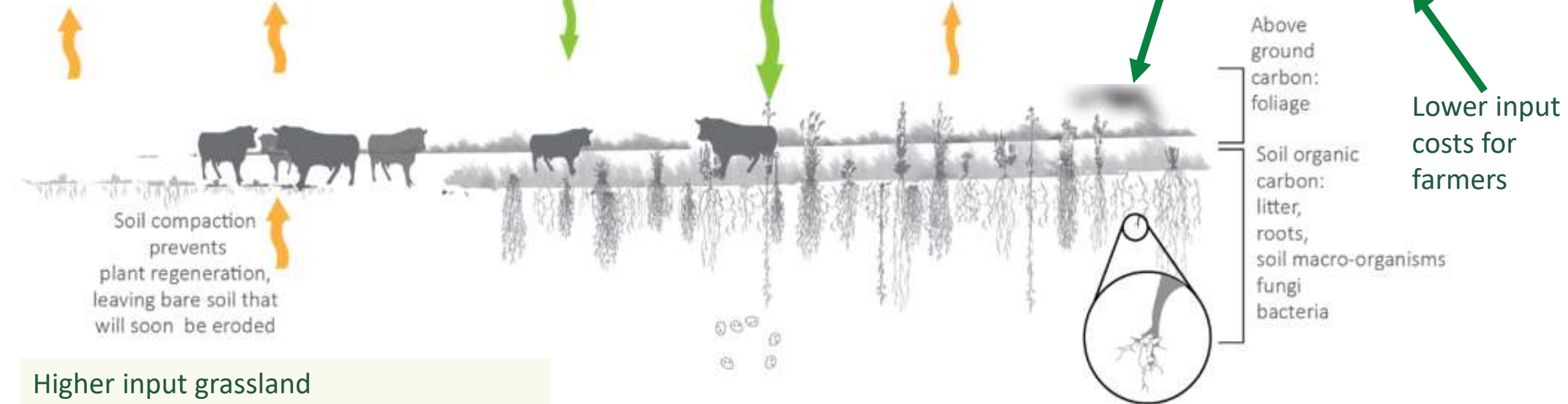
Carbon returns to the atmosphere through respiration and decomposition

No ploughing / tilling, prevents carbon lost from soil

No GHG emissions from farm machinery

No fertilizer, prevents GHG emissions during manufacture & application

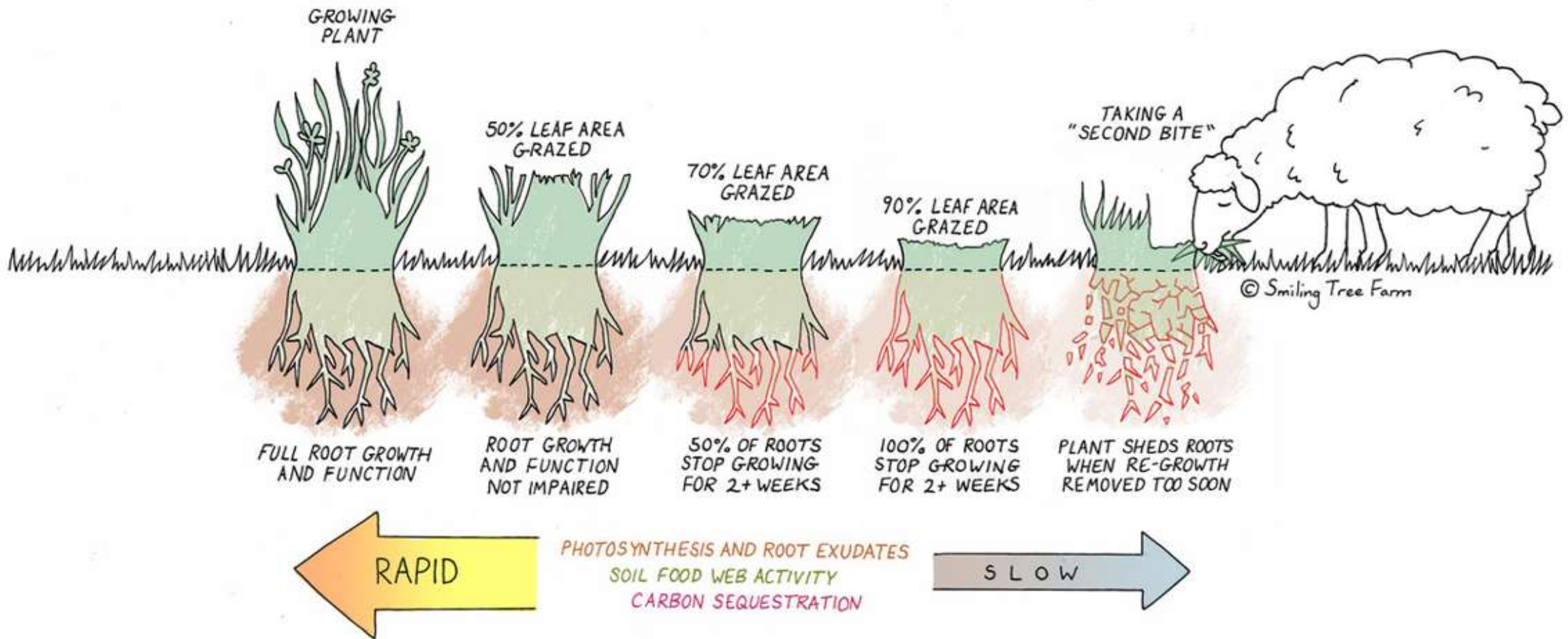
Lower input costs for farmers



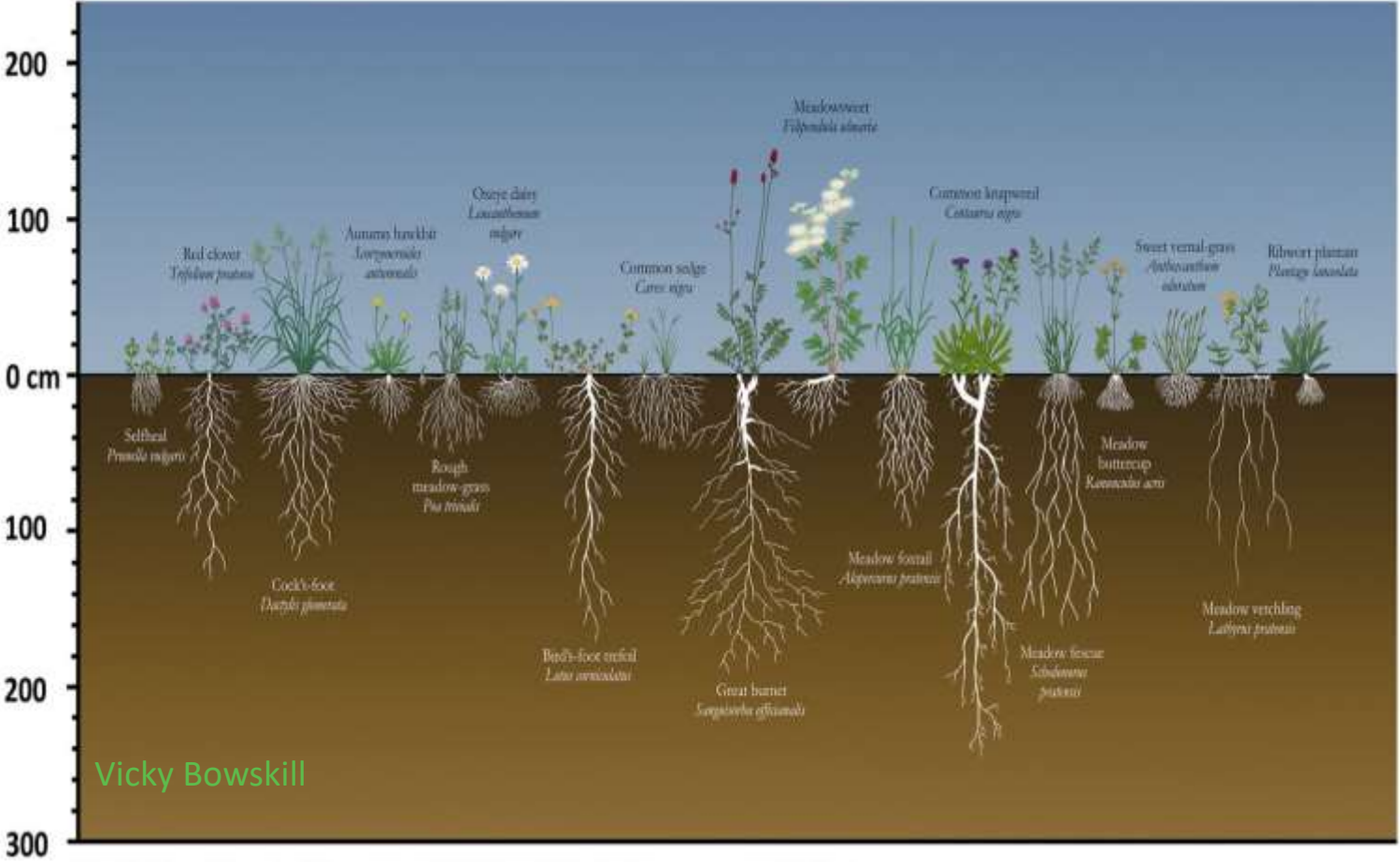
Higher input grassland

Lower input grassland

HOW DOES YOUR GRAZING SYSTEM AFFECT CARBON SEQUESTRATION?



Species-rich grassland stores more carbon



Vicky Bowskill

Carbon in plants, microbes & fungi
 Root biomass & exudates
 Increased microbial & ecosystem engineers
 Community complementarity

Grassland carbon sinks are more reliable than woodland?
 Wildfire predicted to increase 50% by 2100

- Soil organic carbon:**
 (Countryside Survey 2007)
- Acid: 90.6 t C ha⁻¹
 - Coniferous woodlands: 81.4 t C ha⁻¹
 - Broadleaved woodland: 72.9 t C ha⁻¹
 - Calcareous grassland: low confidence estimate of 69 t C ha⁻¹
 - Neutral grassland: 68.6 t C ha⁻¹
 - Improved grassland: 67.2 t C ha⁻¹
 - Arable: 47.3 t C ha⁻¹
 - Floodplain meadows: c. 109 t C ha⁻¹ (FMP research)

Grasslands are an important nature-based solution, with strong links between species-richness and carbon storage

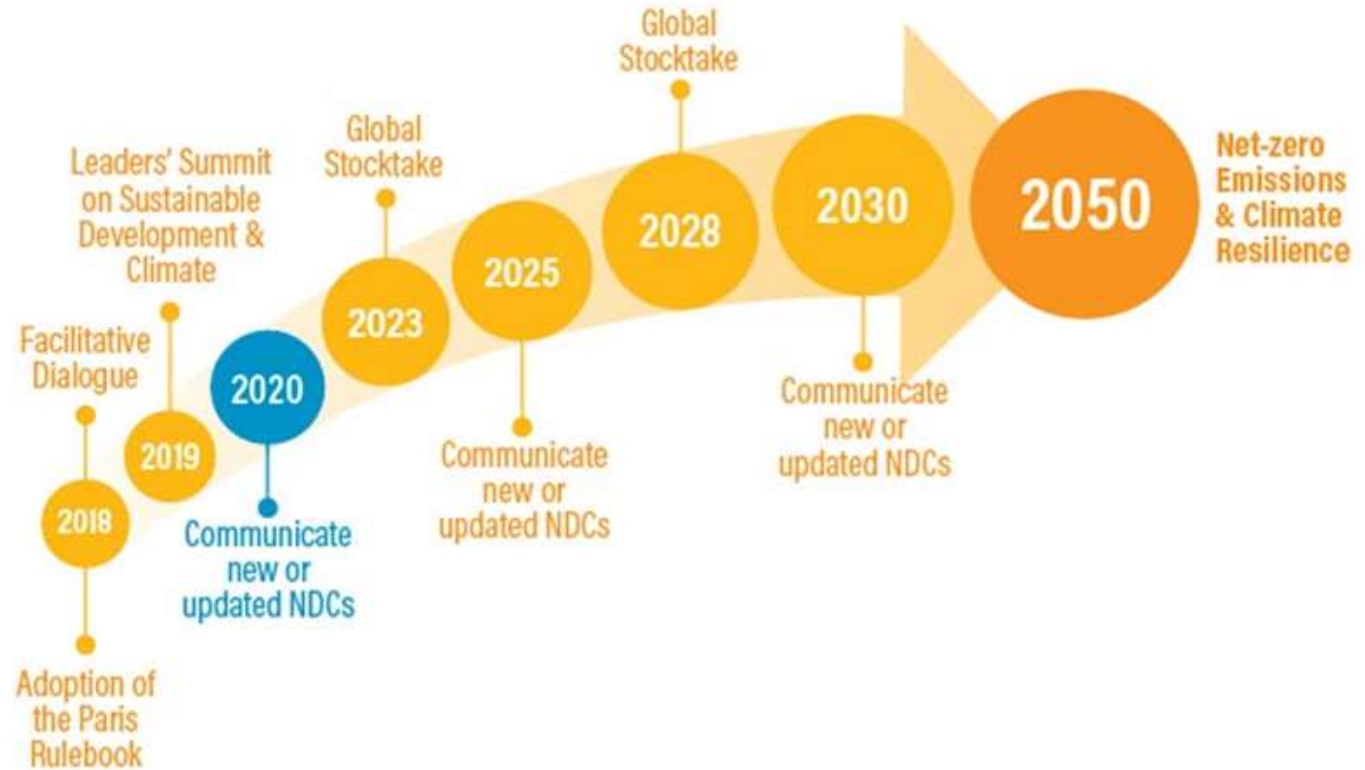


- **2 billion** tons carbon in GB grassland soils – potential to store more
- **90%** SOC in soil & roots
60% <30cm
- Common carbon accounting methodology: only measures to depth of **15 cm**

Nationally Determined Contributions (NDCs)

'The Net Zero Strategy built on the detail set out in the **England Tree Action Plan and England Peat Action Plan**, on how the UK will use nature-based solutions (including peatlands and trees), to tackle climate change and help avert its impacts. Initiatives include:

- The £750m Nature for Climate Fund, which is helping to protect, restore, expand and support the resilience of habitats such as **peat bogs and woodlands**;
 - Support for farmers and landowners to create **woodland and restore peatlands**; and
 - Exploration of setting a long-term **tree planting target** through the UK's Environmental Targets.'
- (UK's NDC – [updated 2022](#))



*“Global studies suggest that approximately 2.3 – 7.3 billion tons of CO₂e year⁻¹ could be sequestered through **grassland diversity restoration efforts**. A further 148-699 and 147 million tons of CO₂e year⁻¹ could be sequestered in pasture through **improved grazing management and legume additions respectively**.’*
(Bai, [2022](#))

Policy...

Big Nature Impact Fund

Further information on the Big Nature Impact Fund

- The new blended fund is being launched with £30 million of government investment. From the 16 November the fund will start to engage with private investors to help fund green projects around the country, this will include tree planting, peat restoration and water quality improvement projects.
- The £30m seed public investment will drive much greater investment from the private sector to invest in nature projects in England to help tackle climate change.
- Investment generated through the fund will support new woodland creation in England – equivalent to 15-16 million trees of new planting. The fund will also support peatland restoration and habitat creation.
- Projects will generate revenue to provide a financial return for investors by selling high-integrity carbon and biodiversity units to businesses to help them fulfil their net zero commitments and biodiversity net gain obligations.

Landscape Recovery: Round 2

This year's application round will fund projects that support net zero, protected sites, and wildlife-rich habitat.

Projects that contribute to net zero could involve:

- peatland
- woodland and trees, including ancient woodland and temperate rainforest
- other sequestering habitats, such as salt marsh, intertidal seagrass, intertidal mudflats and hedgerows
- carbon sequestering practices, such as regenerative agriculture ?

Protected sites include:

- sites of special scientific interest (SSSIs)
- special area of conservation (SACs)
- special protection areas (SPAs)
- Ramsar wetlands
- national nature reserves (NNRs)
- inter-tidal marine conservation zones (MCZs)

Wildlife-rich habitats could include:

- acid or calcareous grassland
- coastal saltmarsh or sand dunes
- intertidal seagrass or mudflats
- ponds, bogs or fens
- rivers or streams
- scrub or hedgerows

Neutral grassland?

All projects should provide extra benefits, such as:

- improved water quality
- helping threatened species to recover
- improved soil health
- increasing resilience to natural hazards, for example, flooding, drought, erosion, fire
- social benefits such as physical access, participation and engagement with nature

...Practice

Landscape Recovery: Round 2

WOODLAND AND
PEATLAND
CARBON CODES

woodlands.co.uk



Clydesdale Wood

DETLING, NEAR MAIDSTONE, KENT

5 ¼ acres

A manageable sweet chestnut coppiced ancient woodland – private, easily accessible, and perfect for someone new to woodland ownership. Located approx. 5 miles northeast of Maidstone.

About: a leading player in UK-based wood capture and offsetting.

Based: Durham

Established: 2006

Status: For-profit.

Certification: Woodland Carbon Code and Peatland Code

Price per tonne of carbon offset: not disclosed. Woodland Carbon Code PIUs (see below) are typically priced at £15-20/tonne of CO₂e.

Applicants were assessed against criteria which considered their feasibility, costs, environmental and social benefits and impact on food production, by a panel of subject matter experts. ?

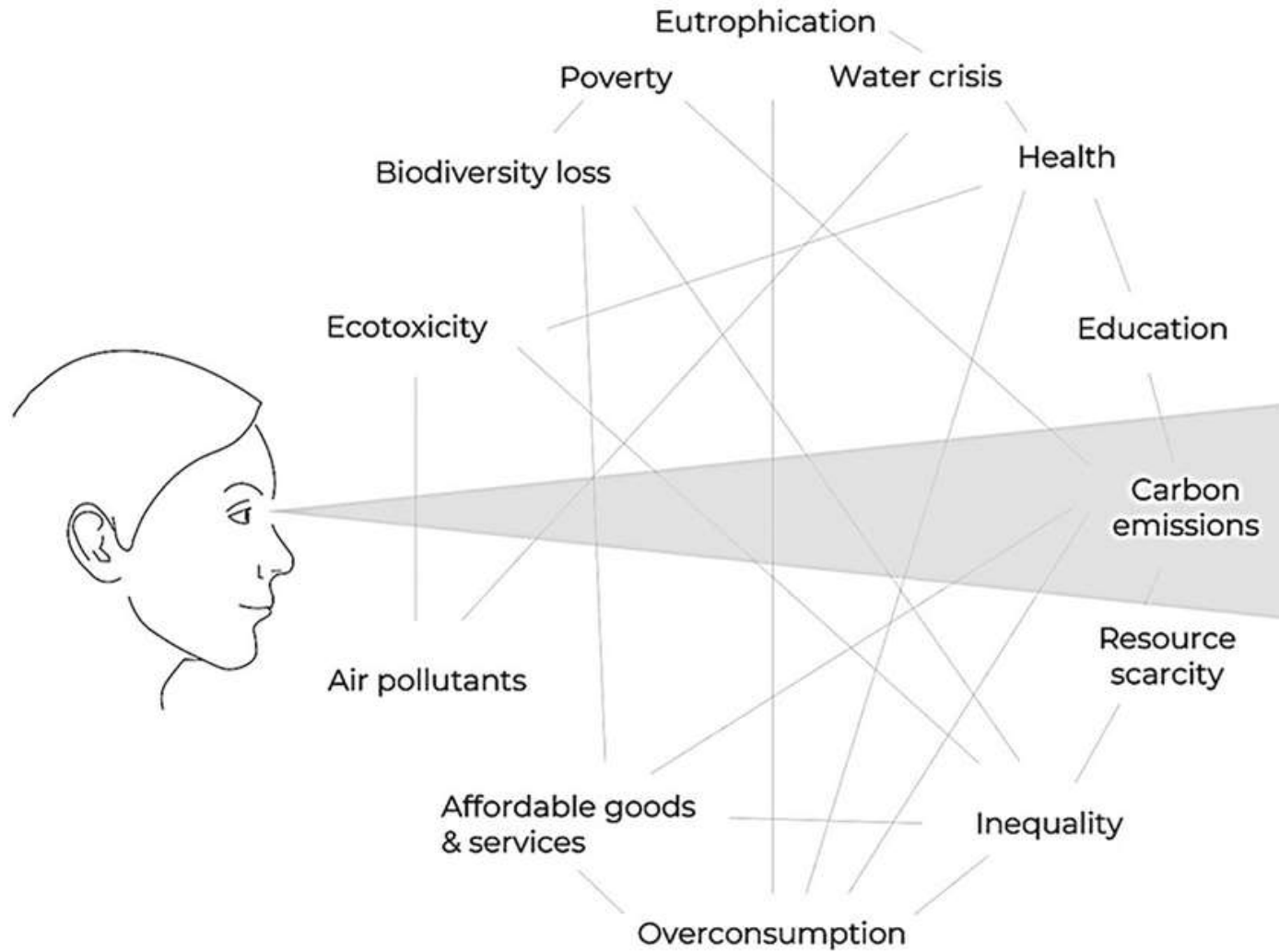
The successful initiatives demonstrated pioneering ideas that will reverse the decline in nature and support the sustainable production of food.

Together, the projects involve over 700 farmers and landowners working with their communities to support over 200,000 hectares across England.

They will:

- restore more than 35,000 hectares of peatland
- sustainably manage more than 20,000 hectares of woodland
- create over 7,000 hectares of woodland, including some temperate rainforest
- benefit more than 160 protected sites, which include Sites of Special Scientific Interest (SSSIs).

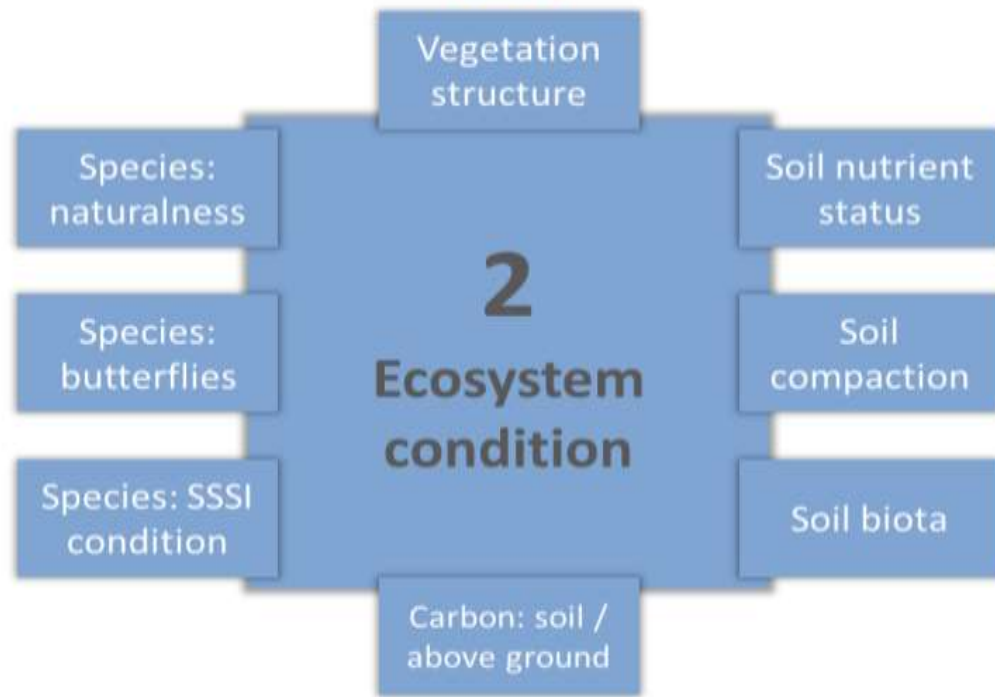
Carbon Tunnel Vision



Possible indicators of 'ecosystem condition'

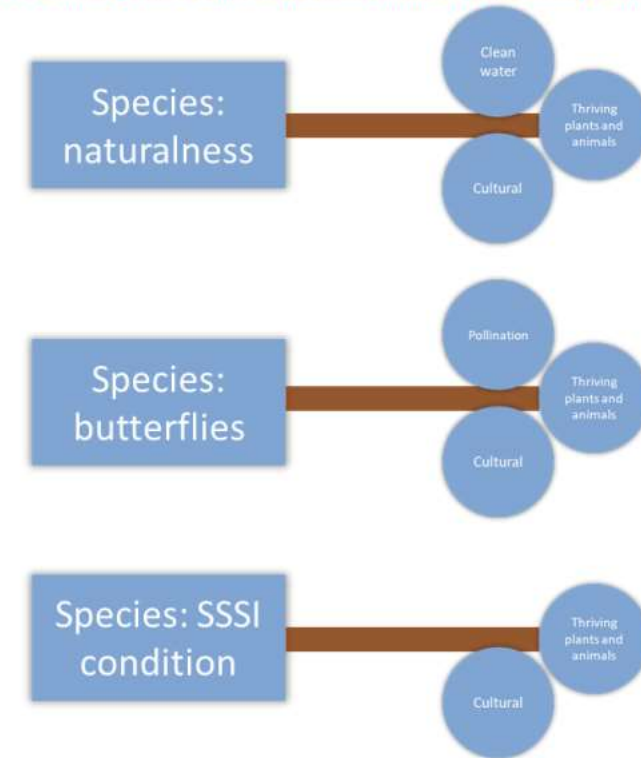
Healthy grasslands habitats in good ecological condition, which are connected at landscape-scale, are essential for wildlife and people. Their condition & extent is important for ecosystem service delivery.

Figure 2-2: Non-exhaustive indicators of 'ecosystem condition' facilitating semi-natural grassland ES delivery in England



Source: adapted from Lusardi et al., 2022

Figure 3-2: How grassland species indicators link to specific ecosystem services



Source: adapted from Lusardi et al., 2022

'Valuing the Vital: ecosystem services in UK grasslands' – [Plantlife report](#)

Farming income for Semi-Natural grasslands



Farming Income for Semi-Natural Grasslands

Plantlife

Salisbury, Wiltshire

Prepared by:

SLR Consulting Limited

Unit 2, Newton Business Centre, Thornciffe Park
Estate, Newton Chambers Road, Chapeltown,
Sheffield, S35 2PH

SLR Project No: 424.064694.00002

Client Reference No: 064694

17 November 2023

Revision: FINAL

Making Sustainability Happen

‘Report explores the economics of farming across England, Scotland, and Wales, evaluating the financial resilience and potential returns for farmers when managing these lands for food, societal, biodiversity, and climate benefits’

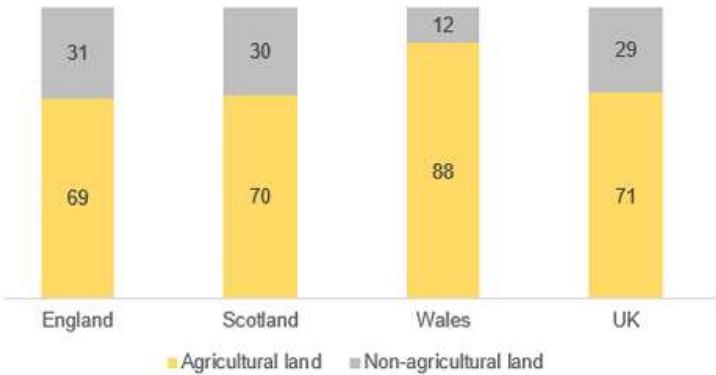
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Context – grasslands in UK

Figure 1-1: Agricultural grasslands in the UK

Across the UK, 71% of land is used for agriculture.



Within land that is used for agriculture, a significant area comprises grasslands.

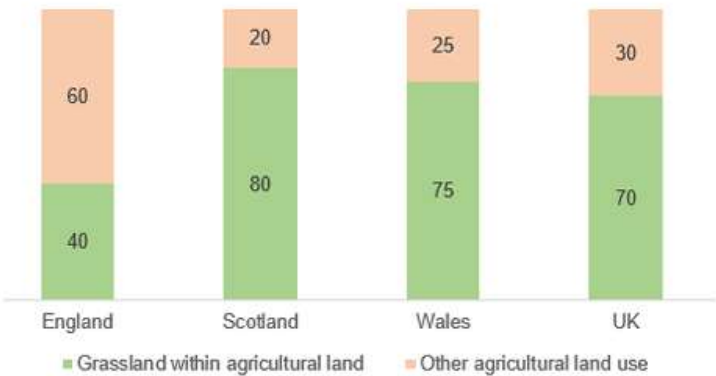


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Northern Ireland	20%	39%	59%
United Kingdom	11%	29%	40%

- Different types of land & topography:
- Wales (80%) & Scotland (85%) grassland pasture classed as Less Favourable Area (LFA)

Economic context – specific challenges

- Farms dependent on livestock grazing have some of the lowest FBI – direct payments = 100% of FBI – operating at a loss without them

In 2021/2022, 'Less Favoured Area' livestock farms had an FBI of £26,800 and lowland of £13,900 (compared to the average UK farm's FBI of £72,000).

- Increased input costs

24% rise in animal feed costs and a more than doubling (104%) in fertiliser prices, the latter being impacted by reduced production linked to escalating natural gas prices.

- No such thing as an 'average farm'

Though the average farm size in 2021 was 81 hectares, half of the 216,000 UK farms were under 20 hectares (i.e. the median farm size is about 20 hectares)

Table 2-1: Summary table detailing the different factors within blocking mechanisms that hinder update of nature-positive farming practices (adapted from study on the Dutch dairy farming industry)

Finance (F)	Action (A)	Vision (V)	Knowledge (K)	Regime (R)
F1: Difficult to coordinate stacking of incentives	A1: Prevalence of short-term lease contracts	V1: Guidance provided from different silos	K1: Biodiversity and ecology are inherently complex	R1: Consumer is unwilling to pay a premium for nature outcomes
F2: Limited markets for ecosystem services	A2: Farmers have a weak position in the value chain	V2: Current vision is ambiguous	K2: Knowledge not holistic and lacking in certain topics	R2: Lack of business case for value chain
F3: Limited penalties for negative externalities	A3: Lack of a transition fund		K3: Knowledge development top-down without farmer involvement	R3: Higher (perceived) risk in nature-friendly business models
F4: Regulation unclear and nature outcomes are not compulsory	A4: Nature-friendly practices can be costly		K4: Lack of independent and non-commercial knowledge providers	R4: Extremely capital-intensive industry
F5: Global markets determine product prices	A5: Banks have difficulty assessing nature-friendly business models		K5: Management indicators for nature-friendly outcomes unclear	R5: High fixed costs
	<i>F: LACK OF FINANCIAL INCENTIVES</i>			R6: Low liquidity of farm businesses
	<i>R3: Higher (perceived) risk in nature-friendly business models</i>			R7: Lack of figurehead farmers
	<i>R4: Extremely capital-intensive industry</i>		<i>A: ABSENCE OF A UNIFYING VISION</i>	<i>R8: Agricultural training not focussed on nature outcomes</i>
<i>R1: Consumer is unwilling to pay a premium for nature outcomes</i>	<i>R5: High fixed costs</i>	<i>R: REGIME RESISTANCE</i>	<i>R: REGIME RESISTANCE</i>	R9: Difference in ambition for various initiatives
<i>R2: Lack of business case for value chain</i>	<i>R6: Low liquidity of farm businesses</i>	<i>K1: Biodiversity and ecology are inherently complex</i>	<i>F4: Regulation unclear and nature outcomes are not compulsory</i>	R10: Lack of coordinated lobbying activity *



'Maximum Sustainable Output'

The results of the study show that farm businesses improve their commercial returnsⁱ if outputs are reduced to a level where production relies on the farm's naturally available resources and other essential costs of production (see below), so that the costs of inputs drop dramatically. Put simply, eliminating costly inputs such as artificial fertilisers and imported feed concentrate was found to make farmers significantly better off across all farm systems studied.

However, shifting farm systems towards MSO alone will not be enough to put nature into recovery. Restoring pollinator populations and improving biodiversity will also require the creation and appropriate management of habitats, restoring precious wetlands will require targeted support and management, and improving water quality and soil health will require ambitious changes to overall management. By combining a shift in farm systems towards an MSO approach with sufficient public funding for nature and climate, it is possible to both reverse recent declines in wildlife and increase the profitability of farm businesses.



Example 4: Lowland dairy

A lowland dairy farm in the South-West is considering a shift in its practices to move towards MSO. Shifting the 265 ha farm, of which 100 ha are field crops and the remaining 165 ha improved grass with 150 dairy cattle, to an MSO approach would result in an estimated 13% reduction in output, but a 15% increase in commercial returns.

Discussions with the farmer highlight that addressing the cashflow issues arising from this shift is key to decision making.

Case Study

At Hilltop Farm, North Yorkshire farmers Leigh and Neil realised that 20th century management techniques learnt by working on conventional farms and through generational knowledge were not delivering a profitable or nature-positive farm. Through changing their farming practices they reap benefits of more profitable livestock and eligibility under Stewardship payment.

Farm Name	Hilltop Farm, Malham, North Yorkshire
Farm size/tenure	Owned. 1,200 acres overall: 350 owned by Neil's parents, 200 owned by Neil, 600 acres rented across four or five different tenancy agreements of varying levels of formality.
Enterprise type	Traditional upland beef and sheep - beef sold direct with some store cattle sold to a lowland farm for fattening.
Grassland types	Upland limestone pasture and haymeadow, some areas are millstone grit.
Favourite plant/management outcome/place on farm	Leigh: The return of life to the farm, insects, botanical life. Because we have insects we have birds; because we have long grass we also have voles and barn owls. Neil: Knowing that our food production isn't impacting the wildlife but that they are complementary to each other.

Photo 1: © Gail Caddy



Source: Plantlife's Farming Income for Semi-natural Grasslands [report](#)

The main financial benefits come from operating a very low-input system; while stewardship payments have made the business more viable, the livestock are profitable in their own right. From a social perspective, both Leigh and Neil described the old system as a "pressure cooker" with the livestock always being pushed to get bigger, faster,

Table 2-1: Summary table detailing the different factors within blocking mechanisms that hinder update of nature-positive farming practices (adapted from study on the Dutch dairy farming industry)

Finance (F)	Action (A)	Vision (V)	Knowledge (K)	Regime (R)
F1: Difficult to coordinate stacking of incentives	A1: Prevalence of short-term lease contracts	V1: Guidance provided from different silos	K1: Biodiversity and ecology are inherently complex	R1: Consumer is unwilling to pay a premium for nature outcomes
F2: Limited markets for ecosystem services	A2: Farmers have a weak position in the value chain	V2: Current vision is ambiguous	K2: Knowledge not holistic and lacking in certain topics	R2: Lack of business case for value chain
F3: Limited penalties for negative externalities	A3: Lack of a transition fund		K3: Knowledge development top-down without farmer involvement	R3: Higher (perceived) risk in nature-friendly business models
F4: Regulation unclear and nature outcomes are not compulsory	A4: Nature-friendly practices can be costly		K4: Lack of independent and non-commercial knowledge providers	R4: Extremely capital-intensive industry
F5: Global markets determine product prices	A5: Banks have difficulty assessing nature-friendly business models		K5: Management indicators for nature-friendly outcomes unclear	R5: High fixed costs
	F: LACK OF FINANCIAL INCENTIVES			R6: Low liquidity of farm businesses
	R3: Higher (perceived) risk in nature-friendly business models			R7: Lack of figurehead farmers
	R4: Extremely capital-intensive industry		A: ABSENCE OF A UNIFYING VISION	R8: Agricultural training not focussed on nature outcomes
R1: Consumer is unwilling to pay a premium for nature outcomes	R5: High fixed costs	R: REGIME RESISTANCE	R: REGIME RESISTANCE	R9: Difference in ambition for various initiatives
R2: Lack of business case for value chain	R6: Low liquidity of farm businesses	K1: Biodiversity and ecology are inherently complex	F4: Regulation unclear and nature outcomes are not compulsory	R10: Lack of coordinated lobbying activity

ELM payment rates - update

CS Option Code	Option Name	Previous Rate	New Rate
GS6	Manage priority habitat species-rich grassland	£182	£646
GS7	Restoration towards species-rich grassland	£205	£646
GS8	Creation of species-rich grassland	£428	£646
GS13/GS14	Manage/Create grassland for target habitats, species or features	£130	£528
GS2	Manage grassland with very low nutrient inputs - outside SDAs or within SDAs	£151	£151
	Manage species-rich floodplain meadows (New Option)		£1,070
LIG1/LIG2	SFI Low/no input grassland	£152	

Celebrations, but devil in the detail?

cat frampton @cat_frampton · Jan 5
I mean you'd think being able to prove a massive amount of rare waxcaps grow here would be enough.

I do the work to keep them safe, but other than the dwindling farming income, all I get is people telling me to graze less and plant trees on them to get cash for the bills.



2 replies · 12 likes · 266 views

Sean Cooch @Newscooch · Jan 5
Hi Cat, I'm not going into detail on here but waxcap grasslands will qualify as Grassland for target features. Not as high (but still v-good) payments. I wanted waxcap grassland as equivalent sp-rich & that's still a goal.

1 reply · 2 likes · 94 views

cat frampton @cat_frampton · Jan 5
Thank you. Gs13. Again, it's high tier only. So we are very unlikely to get that.

James Rebanks @herdyshepherd1

Turns out that you can't apply for the improved species rich grassland option unless you are in Countryside Stewardship Higher Tier or appear on a system called Magic Map that is supposed to show where this is a 'priority habitat' but hardly anywhere is mapped for having that

7:55 PM · Jan 16, 2024 · 2,361 Views

3 replies · 2 retweets · 12 likes

Post your reply

James Rebanks @herdyshepherd1 · Jan 16
I think (but will only believe it when I see it) that our farm may benefit significantly from the GS6 and GS7 payment uplift by the complete chance that we have submitted a HT application full of it before the announcement

But the big picture remains GRIM

2 replies · 1 retweet · 22 likes · 7K views



Julia Aglionby

Professor in Practice, University of Cumbria

View full profile

moorland options farmers can apply for except the SFI moorland assessment and this hasn't yet opened on common land.

2. Effectively no uplift for those already in CS or HLS moorland agreements. Many still have 4 more years in their schemes. Over 434,000 ha of moorland in CS/HLS, only the 3,700 ha in UPS will get an uplift.

3. The Government promised to maintain spending on schemes for farmers each year of this Parliament. Last year it declined by £220 million and the year before by £150 million. £370 million lost to delivering more for nature, climate and heritage with BPS still disappearing how much will the underspend be in 2024?

On grassland while GS6 rate increases substantially to £646/ha most hill farmers cannot access GS6 as the entry criteria are so strict. They are instead left primarily with low input grassland (GSS) and that payment rate remains, like GS2, at £151/ha. There is a £495/ha/yr difference between GSS and GS6.

minette batters @Minette_Batters · Jan 5
Credit where it's due to @DefraGovUK I've been critical of the lack of value in species rich grassland; delighted that the payment rate now reflects the incredible biodiversity & sequestered carbon benefits of grass.

Soon to be backed up by the brilliant work @wakehurst_kew 🌞

Defra UK @DefraGovUK · Jan 4

The biggest upgrade to the UK's farming schemes since leaving the European Union has been set out by the Environment Secretary @SteveBarclay at the 🇪🇺@OxfordFarming Conference today.

Swipe for some of the key updates below [gov.uk/government/new...](https://www.gov.uk/government/new...)
[Show more](#)

'I worry about signing up to something and failing'

‘In 2024 we **will get more advice to more farmers**. For instance, we intend to provide a more **joined up experience for farmers through better integration of the FAS with other services and initiatives to provide an improved offer**. We will also **significantly increase the level of funding available for approved external providers**, such as trusted land agents and **farm wildlife groups**, to provide advice and support to farmers.’

‘Learning from the success of the Farming Resilience Fund, **from 2024, we will start funding more sustainable farming advice**. This will help more farmers understand what opportunities are available to them and **increase adoption of tools such as for carbon audits and natural capital assessments, supported by trusted advisors**. We will look to join this up with the **improved facilitation fund to provide farmers with joined up access to expertise, advice and support**.’

Advisory services

Comments

- Free/low cost advice for farmers is essential for SR grasslands – require bespoke management guidance
- Need more detail on type of advisory services that will be on offer
- Big difference between standard FAS advice & botanical advice
- Without accessible advice, risks farmers going with more understandable/lucrative options e.g. tree planting

Private markets

‘...our partnership with the British Standards Institution (BSI) to develop a range of nature investment standards which provide clear rules for how farmers can access payments from nature markets. We are expecting the first set of standards from the work to be made available in 2024.’

‘Our Natural Environment Investment Readiness Fund (NEIRF) is supporting the development of a series of nature projects that can operate on private sector investment. The third round of the NEIRF **specifically supports farmers to access nature markets.** We are also investing £30 million of seed capital in the **Big Nature Impact Fund which will attract private sector investment into a range of nature projects in England.**’

‘...allow farmers to **have SFI agreements and stack with private markets**, where they are not being paid twice for the same actions’



Criticism of ONG

A key criticism of the BNG metric is that it perversely incentivises such mediocrity, by awarding more units per hectare for ONG than for 'better' grassland types. This is because ONG is less difficult to create in the short-term than the priority hay meadow types, thus the metric applies less onerous risk multipliers. Broadly speaking, developers need less land to deliver an uplift in unit score by creating an offset containing ONG over a priority grassland type. In this way, the metric might perversely encourage the mediocre over the rare/diverse (Glenister, 2022).



The screenshot shows the Gaia website's 'Grassland BNG Units for Sale' page. The navigation bar includes 'Products', 'Biodiversity Net Gain (BNG)', 'Tools', 'Blog', 'Contact Us', and 'Pricing'. The main heading is 'Grassland BNG Units for Sale'. The text describes how Grassland Biodiversity Net Gain (BNG) units are becoming crucial in the environmental conservation market, driven by the forthcoming mandatory BNG requirements set by the Environment Act. It highlights that landowners with grassland habitats have a unique opportunity to develop their land by turning them into BNG units, which are valuable to developers seeking to fulfil their BNG commitments under new environmental regulations. The page also mentions that on the BNG Unit Marketplace, a selection of premium grassland BNG Units is offered from various locations nationwide, and the platform is user-friendly and accessible, providing solutions to BNG requirements in a few clicks. A large image of a green field with a road is visible on the right side of the page.

Irreplaceable habitats

The below irreplaceable habitats are an initial list, to support the launch of mandatory BNG, ahead of a public consultation on a broader definition of irreplaceable habitat in 2024.

For now, in mandatory BNG, the list of habitats will be:

- Ancient woodland
- Ancient and veteran trees
- Blanket bog
- Limestone pavements
- Coastal sand dunes
- Spartina saltmarsh swards
- Mediterranean saltmarsh scrub
- Lowland fens

This list will be set out in secondary legislation and because it is a list already in use, provides certainty for developers and local planning authorities during the first phase of implementation of BNG whilst they are adjusting to the new mandatory requirement.

Our results show that old-growth grasslands, once destroyed, require at least a century, and more typically millennia, to recover their plant species richness ([Fig. 3](#)); full recovery of plant community composition will take even longer ([Fig. 4A](#)). To be clear, the recovery of species richness is not the same as the recovery of community composition; two communities can have the same number of species, while the identity of those species can be quite different ([38](#)). For

Nerlekar (2020) [paper](#)





'Here at Hereford we are not just looking at an interesting view, or an interesting arrangement of plants. We are looking at an increasingly rare example of an area of land whose management helped to hold together the very fabric of a past society. Without the Lugg Meadows of this world there would have been no Hereford Cathedral, no Mappa Mundi – perhaps not even a Hereford itself'



The History and Natural History of the Lugg Meadow Anthea Brian and Peter Thompson, 2002





The site masterplan, the view eastward from the A438 showing the land to be developed, and the rough proposed route of the Eastern River Crossing and Link Road (Image: Urban Design Studio / Savills; Google Street View; Herefordshire Council)

Hereford Development Plan:

*‘River Wye Special Area of Conservation (SAC), including the section of the River Lugg which is **currently failing with respect to the levels of phosphate**. In addition, there are extensive areas of land in the east which fall within the floodplain.’*



63 ancient woods

threatened by HS2 Phase 1



Keepers of time: ancient and native woodland and trees policy in England

Government's statement on England's ancient and native woodland and ancient and veteran trees

May 2022



The ancient woodland concept as a practical conservation tool in Great Britain

Emma Goldberg ^a, Keith Kirby ^a, Jeanette Hall ^b, Jim Latham ^c

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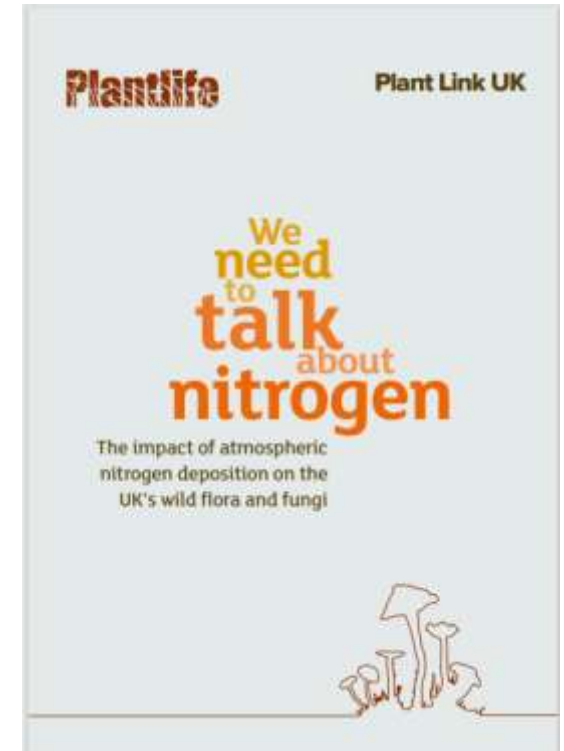
Historical planting in ancient woodlands - Garden Design Sussex



Help The Woodland Trust save ancient woodlands | Kate on C...

Nitrogen - impacts on wildlife

- Eutrophication / nutrient enrichment
 - = nitrogen-loving plants out-compete more sensitive species
- Acidification
 - = changes in soil chemistry affecting plants, lichens and fungi
- Direct damage
 - = bleaching, leaf discolouration, poor health
- Fundamental alteration of species communities and ecosystems
 - = impacts on biodiversity, health, climate and crops



Spotlight on ammonia

- 8% decline since 2005 – target of 16% decrease by 2030
- Agriculture is the source of 83% emissions in England
- Key driver for nature, public health, water quality & climate:
 - “**agricultural emissions of NH₃ have a greater influence than city sources** for Birmingham (32 % agriculture, 19 % city) and London (25 % agriculture, 13 % city)... Action plans aimed at national agricultural sources of NH₃ and strengthened supranational agreements would be most effective at alleviating PM_{2.5} in most UK cities.” (Kelly *et al* (2023) *City & Environment Interactions*)
- Common sources (farm manures & fertilisers) causing:
 - nitrous oxide (N₂O) emissions – powerful greenhouse gas
 - nitrate pollution of rivers & streams



Plantlife's policy asks (...or just a few!)

- Strategic approach & resource for grasslands – a **Grassland Action Plan**
- **ELM – fair reward for farmers & land managers**, recognising the value of semi-natural grassland and work of farmers:
 - SFI payments increased & safeguards around herbal ley options
 - Free/low-cost, tailored management advice
- **Investment in mapping & monitoring** e.g. updates to Priority Habitat Inventory
- **Semi-natural grasslands recognised as a nature-based solution to climate change**
 - Development of Grassland Carbon Code & grassland private market standards
- **Adoption of an Ancient Grassland definition**
 - Ancient Grassland Inventory; statutory guidance; premium ELM payments; planning system protections; public & political recognition
- **Nitrogen** - legally-binding government targets for reducing ammonia & nitrogen oxide emissions with plans of action
 - Effective regulation, incentives, advice and support to enable farmers to reduce ammonia emissions.

Connecting policy & practice

- **Farmers' voices & experiences are central**
 - Reality vs policy – e.g. paperwork, agricultural calendar, weather (!), family & peers etc.
 - Case studies = easily relatable & digestible proof
 - Storytelling (Defra farming blog & videos)
 - Demonstration walks & MP visits
- **Evidence-gathering**
 - Botanical & fungal surveys
 - Citizen science e.g. Cairngorms Mob Grazing Trials
 - Carbon data collection e.g. Thames Valley Wildflower Meadow Restoration Project & Floodplain Meadow Partnership (funded by Ecover grant)



... but just talking to each other & inspiring incremental changes!



Plantlife

The global voice for
wild plants and fungi
