

Digging the dirt

Improving Wales' soil health

November 2025



The Welsh Parliament is the democratically elected body that represents the interests of Wales and its people. Commonly known as the Senedd, it makes laws for Wales, agrees Welsh taxes and holds the Welsh Government to account.

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About the Committee

The Committee was established on 23 June 2021. Its remit can be found at:
www.senedd.wales/SeneddEconomy

Current Committee membership:



**Committee Chair:
Andrew RT Davies MS**
Welsh Conservatives



Hannah Blythyn MS
Welsh Labour



Alun Davies MS
Welsh Labour



Luke Fletcher MS
Plaid Cymru



Samuel Kurtz MS
Welsh Conservatives



Jenny Rathbone MS
Welsh Labour

Hefin David MS was a Member of the Committee during this inquiry. He sadly passed away on 12 August 2025.



Hefin David MS
Welsh Labour

The following Member attended as a substitute during this inquiry.



Siân Gwenllïan MS
Plaid Cymru

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Chair's foreword

The critical role of healthy soil in promoting sustainability is often overlooked. As well as providing nutritious food, good quality well-cared-for soil is great for sequestering carbon and promoting biodiversity. Because quality topsoil requires centuries to form, its renewable nature is limited by an extremely slow regeneration process. Therefore, it is imperative to take proactive measures to enhance and protect our existing soil resources before irreversible degradation occurs.

The Welsh Government is proud of its commitments to sustainability and future generations. If it is to meet its aim of ensuring future generations “have at least the same quality of life as we do now”, and if we wish to leave land of a suitable quality to produce enough food to feed our children and the generations to come, the Welsh Government must urgently act to ensure our soil is a priority and its health is not just protected but improved.

We were pleased to hear Wales already has a relatively good soil testing regime, and that testing will be a key part of the Sustainable Farming Scheme. However, the Welsh Government must ensure that use of the data from this testing is maximised. The data collected must be shared with farmers in the most accessible way, and with experts, to increase our understanding of soil health.

The Committee is very concerned about tenant farmers and how they can be encouraged to improve their land. We heard the percentage of farmland on short term tenancies is likely to increase, so ensuring those tenants are supported and incentivised to invest in the land will be vital.

As with so many challenges, planning is also a key issue that must be addressed to protect our most fertile agricultural lands. There is a natural tension between the need to develop land, for example to provide more housing or renewable energy, and to protect our highest quality farmland. Whilst planning policy does set out to protect our best and most versatile agricultural land we are concerned this is not happening in practice. Welsh Government must intervene to reinforce this hierarchy.

I would like to thank everyone who took time to contribute to this important Inquiry.

Andrew RT Davies MS

Chair

Recommendations

- Recommendation 1.** Soil testing as part of the Sustainable Farming Scheme is a great opportunity to increase our understanding of soil. Welsh Government must ensure it shares soil health data both from those tests and any testing it commissions with farmers and other land managers in the most accessible way for them to improve their local management of soil health. They should also look at how data from tests undertaken as part of the SFS can be shared with experts to increase the understanding of our soil health regionally and nationally – whilst respecting privacy and commercial confidentiality..... Page 14
- Recommendation 2.** The Welsh Government must ensure it is fully encouraging and supporting tenant farmers to improve the soil they are farming. This could include financial support and supporting them to obtain certifications that will increase the value of their products..... Page 21
- Recommendation 3.** The Welsh Government should develop a framework to support planning officers making decisions on applications for use of agricultural land. This framework should be developed with the aim of retaining the best land for agricultural use, set priorities between uses and be future proofed from a climate change perspective.Page 28
- Recommendation 4.** The Welsh Government should review the ALC data and maps to ensure they are still fit for purpose.....Page 28
- Recommendation 5.** The Welsh Government should set out what its plans are to encourage farmers who do not engage with the Sustainable Farming Scheme to improve their soil health. As part of this it should detail its plans for regulation, including putting GAEC 4 and 5 on a statutory footing.Page 32
- Recommendation 6.** The Welsh Government should clarify the guidance around soil health. As part of this they should consider creating a voluntary minimum standard for soil health which they would then use to measure progress, with the possibility that this voluntary standard could become a statutory minimum if progress is not achieved..... Page 34
- Recommendation 7.** The Welsh Government should, as a matter of urgency, ensure high quality advice is available for farmers exploring the carbon credit market..... Page 37

Conclusions

Conclusion 1. The Committee was pleased to hear that Wales is a leader in soil testing. The Welsh Government must work to ensure that lead is retained. To do this it should examine best practice around information sharing from the Northern Ireland Soil Nutrient Health Scheme and look at how the data capture can be widened to include increasing the depth of soil samples taken as part of ERAMMP and improving soil biodiversity monitoring. Page 14

Conclusion 2. We welcome soil testing requirements in the Sustainable Farming Scheme, however the Welsh Government must ensure the results are acted on via funding, or advice and guidance on how farmers can improve their land, or a combination of the two..... Page 21

Conclusion 3. The next Government should examine the Nature Friendly Farming Network's suggestions for improving soil health and consider how they could be incorporated into future iterations of the Sustainable Farming Scheme..... Page 21

Conclusion 4. The Welsh Government should engage with DEFRA and follow the development and implementation of their Land Use Framework.Page 28

Conclusion 5. The Welsh Government should clarify exactly which GAECs will apply to SFS claimants Page 32

Conclusion 6. The next Welsh Government should review the private investment landscape, with a view to exploring the relative merits of moving from carbon credits to value chains..... Page 37

1. Background

- 1.** It is often said that the world only has 100, 60, or even 30 harvests left. The scientific basis of such claims is unclear.¹ Nevertheless, it is true that soil degradation across Wales and England is estimated to cost over a billion pounds a year.²
- 2.** Soil is the most significant capital asset of farmers. It is essential for sustainable agriculture, as well as carbon sequestration, flood prevention and biodiversity. This report looks at the current state of Welsh soil and how we can ensure we have healthy land to support a healthy agricultural sector and achieve these other critical objectives.
- 3.** The terms of reference for this inquiry were:
 - the role and state of soils in agricultural systems;
 - monitoring of soil health;
 - classification of soils for land use;
 - the policy and legislative mechanisms to protect soils and productive land (including the Sustainable Farming Scheme, National Minimum Standards and planning policy (amongst others)); and
 - the potential for legal frameworks and targets for soils.
- 4.** The Committee held evidence sessions in May and June 2025. Members heard from a range of stakeholders including academics, environmental organisations, farming representatives and the Welsh Government.
- 5.** The Committee would like to thank everyone who gave evidence to this inquiry.

¹ Ourworldindata.com [Do we only have 60 harvests left?](#)

² naturalresources.wales [Protecting water and soil through farming and sustainable land management](#)

2. The importance of soil

6. Professor Bridget Emmett succinctly set out the fundamental importance of soil and why it needs to be a priority for the Welsh Government:

"Soil is the main capital asset all farmers in Wales have. That's the basis of everything that they do, and it forms really, really slowly. So, every bit of soil out there has been formed in the last 11,000 years, and it grows really slowly. So, that means it's not not renewable, but it renews at a very, very low rate. Every time you see that brown sludge going off a field and into a river and what have you, it should make you cry. That's just a disaster. That's hundreds of years of nature's work, just flowing down into a river and off the field ... It's essential for our food production, but it's also really important for our general well-being. It's capturing soil and holding soil. It's regulating water so we don't get such rapid rain flood into the rivers.

*Also, the most recent statistic, which is just a bit jaw-dropping, is that 60 per cent of global biodiversity is thought to live in soil. Just think of that. Yet, in any of our biodiversity strategies, do we ever talk about soil biodiversity? Most of, for example, our antibiotics, the most commonly used antibiotics, have all been derived from soil micro-organisms. So, it is essential to protect for our food system, for our farming industry, but also for all of our well-being."*³

³ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraphs 11-12

3. Soil Monitoring

The Environment and Rural Affairs Monitoring & Modelling Programme

7. The Environment and Rural Affairs Monitoring & Modelling Programme (ERAMMP), led by the UK Centre of Ecology and Hydrology on behalf of the Welsh Government, provides evidence for policy development. The Programme has submitted several reports to the Welsh Government on soil health in Wales.⁴

8. In April 2025 ERAMMP released 'Wales National Trends and Glastir Evaluation' which shows the status and trends of soil health in Wales for the last 10 years linked to monitoring programmes started in the 1970s.⁵ Data from this and other ERAMMP output was referenced widely in evidence submitted to this inquiry.

9. The Committee heard a lot of positive comments on ERAMMP's work. When asked if they were 'underwhelmed by the Welsh Government's monitoring and modelling programme, done by ERAMMP' the Sustainable Soils Alliance replied that on the contrary:

*"I'm overwhelmed by it. I think it's wonderful, because you have one. Other nations do not have change data; we do not know for sure in which direction things are going. We have what we see, but we don't have clear change data going back, and you need data going back in time because you need to model over that climate change and all sorts of other things—land use change. And so I applaud Wales."*⁶

10. This positive view of ERAMMP was supported by other witnesses. It was suggested that in an ideal world ERAMMP sampling might go further. Professor Prysor Williams said "the measurements within ERAMMP are of the top 15 cm of soil. Ideally, if the budget was there, I'm sure ERAMMP would love to sample to greater soil depth." He said this could provide more insight on the "potential from deeper [carbon] sequestration in Welsh soils".⁷

11. The Farmers' Union of Wales (FUW) highlighted that the Sustainable Farming Scheme Carbon Panel recommended that the Welsh Government improve its soil

⁴ www.erammp.wales/soil-and-peat

⁵ www.erammp.wales Wales National Trends and Glastir Evaluation

⁶ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 40

⁷ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraphs 97-99

monitoring programme to meet the United Nations Framework Convention on Climate Change (UNFCCC) compliance standards to assess soil carbon to a minimum of 30 cm.⁸

12. Both Professor Williams and Professor Emmett⁹ suggested ERAMMP could do more to monitor biodiversity within soils. Professor Williams told Members “if you want to know about soil health, you need to know about soil biodiversity.” He went on to explain “it’s a big regulator of how the soil functions, the nutrient reservoir et cetera, and it also includes the living fraction, the active biology, but understanding the composition of that food web ... tells us everything we need to know about how that system’s going to behave.” However he cautioned that this would not be easy or cheap; he told Members “to put a blunt point on it, you have to pay for that, I’m afraid, and that is something that we should be including in the monitoring programme.”¹⁰

Using soil monitoring data and the Sustainable Farming Scheme

13. In their written evidence the FUW raised concerns that:

“the vast majority of this [ERAMMP and Soil Policy Evidence Programme¹¹] data and detail is not communicated back to the farmers managing these soils, representing a missed opportunity for engagement, knowledge sharing and monitoring. However, accurate and cost-effective monitoring of soil carbon through comparable and repeatable measurements is challenging at the farm-level.”¹²

14. They pointed to Northern Ireland’s Soil Nutrient Health Scheme as an example of where this data had been shared well. They told Members “the largest baseline soil sampling programme ever undertaken has had a 92% farmer uptake, in part due to the delivery of farm-level, and field-level soil data on fertility and carbon stocks, with accompanying LIDAR run-off risk maps and above-ground biomass maps.”¹³

15. The Deputy First Minister told the Committee that the Sustainable Farming Scheme (SFS) would help address the FUW’s concerns regarding information

⁸ Written evidence, [FUW](#).

⁹ It should be noted that Professor Emmett is the Scientific Lead for ERAMMP

¹⁰ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 156

¹¹ The [Soil Policy Evidence Programme](#) is the Welsh Government’s evidence programme on the condition of soil and how agricultural practice is affecting it.

¹² Written evidence, [FUW](#).

¹³ Written evidence, [FUW](#).

sharing. He said soil testing would be part of the universal layer and that the Scheme “is designed to work with the farmer and share with them this data. I think, probably, [Their comments are]reflecting past practice as opposed to what we’re going forward to in the SFS.”¹⁴

16. An official expanded on this:

“One of the problems in the past is that soil testing results were never shared with the Welsh Government, or they were in a paper format, and it was very hard to get all of that data, and rationalise it, and put it into a digital format to be able to use and interrogate. But, hopefully, as the Deputy First Minister is saying, we’ll have a step change in that, if that is agreed and taken forward through the scheme, because that can be supplemented into the ERAMMP national data, and we get these national trends, and we can start looking at local specifics on what’s going on, and then be able to shape future interventions and policy, the knowledge transfer offer, and the range of actions that the SFS will inevitably evolve into.”¹⁵

17. The SFS Universal Action 1 is “Testing soil on improved land to inform soil health planning for your farm”.¹⁶

“By improving soil structure and building levels of organic matter, your soils will be better able to absorb and manage water, and therefore your pasture will be more resilient, reducing reliance on bought in feed. For this reason, the first Universal Action in the scheme is to help you improve soil health – which begins with soil testing. This means that if you are not already testing, you can have a better understanding of your soils, and from there you can make informed decisions to improve soil health. This in turn underpins all our ambitions for food production, nature and climate.”¹⁷

18. The SFS , Universal Action 1 “involves soil testing of your agriculturally improved land which has previously received or may receive inputs (natural and artificial) or lime.” The scheme description explains “To complete this action we are asking you to undertake soil testing on at least 20% of this improved land per

¹⁴ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraphs 349-350

¹⁵ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 355

¹⁶ Gov.Wales [Sustainable Farming Scheme 2026: scheme description](#)

¹⁷ Gov.Wales [Sustainable Farming Scheme 2026: scheme description](#)

year, which means all relevant land is tested in a five-year cycle. It is acceptable to test more than 20% per year if you prefer. You will need to collect soil samples using a standard procedure which will be included in the technical notes."¹⁸

19. NFU Cymru and FUW highlighted the importance of data protection in relation to sharing soil data and its use.

Our View

Although often overlooked, soil is one of Wales's most important natural assets. Soil takes a long time to reproduce and is essential to growing food and support our population. A theme of this report is the need to protect and improve our soil and ensure it remains able to support our farming industry, sequester carbon, prevent flooding, and retain and improve the vital biodiversity it currently harbours for now and into the future.

To protect and improve our soil we must understand what the current baseline is and where work to improve is needed. We were pleased to hear the positive feedback about ERAMMP and that witnesses felt Wales was taking testing seriously by making it Universal Action 1 in the SFS.

The Welsh Government must not rest on its laurels. It is vital that soil testing results are shared with farmers and other land managers - both to inform individual farm decisions and promote soil health management more widely. We were pleased to hear the Welsh Government have committed to working on this as part of the SFS.

The Welsh Government must ensure it is making the most of the new data from soil testing as part of the SFS. This data needs to be collated on a regional and national level and shared with and between farmers. However, the Welsh Government must consider privacy and commercial sensitivity concerns when sharing this information.

To improve our soil monitoring, and keep Wales at the leading edge of the field, the Welsh Government should consider examining the good practice from the Northern Ireland Soil Nutrient Health Scheme and to increase the depth of soil samples taken as part of ERAMMP. It should also consider improving the monitoring of biodiversity within soils.

¹⁸ Gov.Wales [Sustainable Farming Scheme 2026: scheme description](#)

Conclusion 1. The Committee was pleased to hear that Wales is a leader in soil testing. The Welsh Government must work to ensure that lead is retained. To do this it should examine best practice around information sharing from the Northern Ireland Soil Nutrient Health Scheme and look at how the data capture can be widened to include increasing the depth of soil samples taken as part of ERAMMP and improving soil biodiversity monitoring.

Recommendation 1. Soil testing as part of the Sustainable Farming Scheme is a great opportunity to increase our understanding of soil. Welsh Government must ensure it shares soil health data both from those tests and any testing it commissions with farmers and other land managers in the most accessible way for them to improve their local management of soil health. They should also look at how data from tests undertaken as part of the SFS can be shared with experts to increase the understanding of our soil health regionally and nationally – whilst respecting privacy and commercial confidentiality.

4. The Sustainable Farming Scheme

Soil testing as part of the SFS

20. The SFS will be a key policy mechanism for protecting soils. Whilst the inclusion of soil testing in the SFS was welcomed by stakeholders, the Committee heard evidence that more could be done as part of the Scheme.

Tenant farmers

21. Both the FUW and NFU Cymru said that tenant farmers were less likely to undertake soil testing as they were less able to undertake soil improvement actions. They cautioned that this could be a big issue once soil testing becomes a standard farming practice. NFU Cymru told Members:

*"We do need to be very concerned about the length of tenancies on farms. Lots more land is turning over to short what we call FBTs or farm business tenancies, where they could be one or two years. If you have only got some land for a year, you are unlikely to soil test it, because (1) you won't really have time to react to it, but, if you did, you're not really going to see the benefits from it. I think we should be particularly alive to that if inheritance tax goes through in its current format, because we are going to see more short-term FBTs in our estimation, particularly because we're already seeing people who've got large property portfolios who are now more tempted to go and buy agricultural land, as opposed to a shopping mall or whatever it may be, and they are unlikely to want to put long-term tenancies on this land. There'll be short-term FBTs, and I think that will be a detriment to our soils, let alone our food production."*¹⁹

22. As a result of hearing this evidence, the Committee wrote to National Trust Cymru to ascertain what good practice they could share from their decarbonisation work with their large number of tenant farmers. National Trust Cymru told Members they use the tenancy agreements to influence land management practices. When a change of tenancy is due clauses and land condition would be reviewed by staff with a range of expertise to decide if that land is achieving, or moving towards achieving, the desired objectives. They said:

¹⁹ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 249

*"We recognise the positive financial implications that farm businesses can achieve when soil health is optimal, lessening the need for costly inputs and improving yields and livestock health. As a result, we also encourage our tenants to participate in agri-environment schemes or explore accreditations such as Pasture For Life or Organic which facilitate improvements to soil health through environmentally sensitive land management practices but may also offer premiums for products."*²⁰

Actions beyond testing

23. Professor Williams said "there's no doubt that we need to improve the uptake of soil testing and the actioning on it." He suggested farmers should report what they had done on the back of the tests, "as opposed to ticking a box to say that they have had a soil test."²¹

24. He observed that some farmers were trapped in a vicious cycle and they do not have the capital to act on the test. He explained that lime (a soil conditioner and acidity regulator) "pays for itself really" but that it is a large one-off capital investment so he suggested it could be covered by the SFS.²²

25. The Nature Friendly Farming Network (NFFN) welcomed the soil testing Universal Action but cautioned that testing on its own will not deliver better soils:

*"I don't think this will necessarily lead to big gains in increased soil health. I think the testing and planning is great, it's a great place to start, but the suitable advice and support to act on the recommendations of the results is really important."*²³

26. The Soil Association agreed the SFS needs to translate testing into action:

"the key, though, is how do you turn those plans into action. And that's where the support and the incentive, and the guidance, in particular, to act on soil health plans and pull from some of the other layers that, hopefully, will have support for sustainable farming practices, which can encourage soil health—. So, it's the Optional and Collaborative

²⁰ Written evidence, [National Trust Cymru](#)

²¹ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 57

²² Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 58

²³ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 52

layer area that will really reap the benefits of farmers understanding more about their soils.”²⁴

Improving soil over time as the SFS develops

27. In written evidence the NFFN highlighted that “As the SFS evolves, specific Optional or Collaborative actions that demonstrate significant soil health benefits could, over time, become prerequisites to entering the SFS Universal Layer, particularly if their uptake is insufficient to meet national goals.”²⁵

28. They elaborated on this in oral evidence with specific suggestions for future developments of the SFS to improve Wales's soil health::

- indicators linked to soil health to be included in Universal Action 3 (Benchmarking) to give a better understanding of soil health across Wales;
- Universal Action 4 (Continuous Professional Development) could include soil health training or as a module in a mandatory course;
- Collaborative and Optional layers to enhance or facilitate regenerative farming techniques and nature-based solutions to increase soil health. This might include multi-species cover crops and the use of organic fertilisers;
- facilitating strategic management of grazing to tackle soil compaction; and
- more ambitious soil testing in the Optional layer as well, taking account of the biological and physical condition of the soil, not just looking at the chemical analysis.²⁶

29. Both NFU Cymru and the Country Land and Business Association suggested a lot of regenerative farming was already happening across Wales. NFU Cymru said “I think the jewel in the crown for Wales is the fact that a lot of farmers are regenerative farmers. Where we've got the problem is that not a lot of farmers identify with that phrase, because it doesn't mean a lot. But if you took the three basic principles of what a regenerative farmer is, it's constant ground cover or

²⁴ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 29

²⁵ Written Evidence, [Nature Friendly Farming Network](#)

²⁶ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraphs 51-61

minimal ground disturbance, which even for our growers, they're all moving away to no-tillage systems or minimum-tillage systems where possible."²⁷

30. The CLBA said "flexibility within the SFS to allow people to do these kind of things, whether that is mob grazing, novel crops." They said while the SFS had been developed "some of these regenerative principles or practices aren't catered for within the SFS currently, but they've been shown that they could be with flexibility." They warned we shouldn't be "too caught up with names of particular types of farming, but allowing all the different practices, which have been done for years within Wales and across the UK".²⁸

Carbon sequestration

31. Improving carbon sequestration on farms is one of the aims of the SFS. "The scheme has a key role supporting you to better understand your farm carbon balance, as well as the impact of changes in farming practice and uptake of techniques to both increase opportunities for carbon sequestration and reduce greenhouse gas emissions (GHG)."²⁹

32. The Committee heard evidence that the role of soil in carbon sequestration is not straight forward. Dr William Stiles said:

"It is a contested topic ... as to how much carbon we can actually get into soil, whether we are able to increase it. I suppose there's a difference to consider between the concept of ... where we can get to saturation, but also what we can do in terms of restoration."³⁰

33. He told the Committee "Increasing the organic matter levels in much of our pristine grassland in Wales, you're not going to do much there. You're in an environment where organic matter input is high." However he went on to say "If you have a system that is healthy and, as I say, in an equilibrium state, or in a steady state, the amount of outputs should equal the amount of inputs and it will stay relatively stable. If you look at a soil that is degraded, such as an arable soil, where the extraction through harvest will mean that the organic matter is decreasing, then there is a huge potential for increasing the organic matter content and, therefore, the carbon content of that soil".³¹

²⁷ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 298

²⁸ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 303

²⁹ Gov.Wales [Sustainable Farming Scheme 2026: scheme description](#)

³⁰ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 86

³¹ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 87

34. Professor Emmett highlighted that “the key point about soils and soil carbon is to not make them a net source; they should be helping us. Currently, they are contributing. And that is just shocking”.³² She said in Wales:

“Soils are a net contributor. Because arables are emitting, and peatlands. Peatlands are 4 per cent of Wales, but they’re contributing 9 per cent of the net agriculture and land use, land use change and forestry inventory. As Will said, a lot of our soils are just stable, a lot of our pastures, we can’t find trends in those, but the arable is going down, the peatland is going down. So, the first thing is that we must stop that. And then the question is how can you get more carbon into soil.”³³

35. The farming unions pushed back on this evidence. NFU Cymru said “I would like to have some more scrutiny on that claim, because the information that we’ve seen, particularly from the Climate Change Committee report that came out yesterday, would suggest that, actually, carbon within soils is stable and, over historic periods of time, is slightly declining.”³⁴

36. The FUW added “the most recent national trends that the ERAMMP came out with was that national topsoil in Wales is stable. The losses were actually within arable, and we know that there’s more urban expansion happening as well, so I don’t know if, possibly, it was related to that and to arable. I know, across the UK and England, there is a definite loss of carbon. And, obviously, it can be localised, can’t it? It depends exactly what’s happening. But, as a general term, the topsoil carbon is stable.” They went on to say this was another reason to gather data with deeper soil readings.³⁵

37. Professor Emmett supported Dr Williams’ assertion that the type of soil was important and you could not have a one size fits all solution, with different studies providing different results because “your starting point was different, your climate was different, your soil was different, your management was different.”³⁶

38. However she went on to say “Our estimate was it could offset 5 to 10 per cent of current agriculture greenhouse gas emissions” and that carbon was a key

³² Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 90

³³ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 92

³⁴ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 187

³⁵ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraphs 189-190

³⁶ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 93

indicator of soil health so getting more carbon in the soil could be promoted as a way to improve food production with a secondary benefit of carbon offsetting.³⁷

39. Professor Emmett cautioned the Committee that:

"There are some people, unfortunately, who go around that say, 'With soil carbon and a few hedges, we can just carry on as we're doing before and get to net zero.' Most people I know say that is not correct."³⁸

40. The Deputy First Minister told Members: the SFS should improve Wales's soil health

"Already, we've got a range of proposed measures, such as the integrated pest management plan, habitat management actions, capital support for tree planting and hedgerow creation—all of these support multiple benefits, which include improving soil health. So, they need to be pulled together. But we can also go further than the Universal Actions as well, because, as we develop, as we're currently doing in live time, the Collaborative and the Optional layers, we can look at—. For example, one of the proposals is capital funding within the Optional layer on the improved soil health and multispecies crop cover theme. These start to, then, tie together. It will be a step change at the Universal level—and I think it's important to say that—in the testing, the dissemination of information, using that information to improve soils, simply as a point of entry to this.

But above and beyond that, we can do even more. And you are right in what you're saying. The point is well made; these pieces need to be seen as part of the ecology of the farm, not one individual element."³⁹

Our view

We are pleased that soil testing is a Universal Action within the SFS. However, we agree with stakeholders that testing alone will not improve soil health and must be backed with support for farmers and land managers to act on the findings. This support could be in the form of advice and guidance or capital

³⁷ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 95

³⁸ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 96

³⁹ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraphs 358 and 359

funding for management via the Optional level of the scheme as suggested by the Deputy First Minister.

A long term concern of the Committee has been how the SFS would support tenant farmers. We were worried by the evidence that tenants would have little incentive to improve the soil on the land they are renting. As we are seeing an increase in short term tenancies it is extremely important those tenants are encouraged to improve the land they are renting as opposed to exhausting it. The Welsh Government should look to improve the incentive for tenant farmers either via direct funding through the SFS or by support for tenant farmers to achieve accreditation similar to the encouragement offered by National Trust Cymru to its tenants.

We are interested in the future development of the SFS. There is a lot of scope to improve Welsh soil health via the Scheme and this should be a priority for the next Government. To this end we believe the next Government should consider the Nature Friendly Farming Network's suggestions for improving soil health and hold the structure of and fertility within the soil.

Improving soil health will have multiple benefits including increasing production as well as biodiversity and carbon sequestration. It must be a key goal of the SFS to shift soil from a net producer of carbon to a carbon sink and the tailored approach that will be necessary depending on the soil makeup.

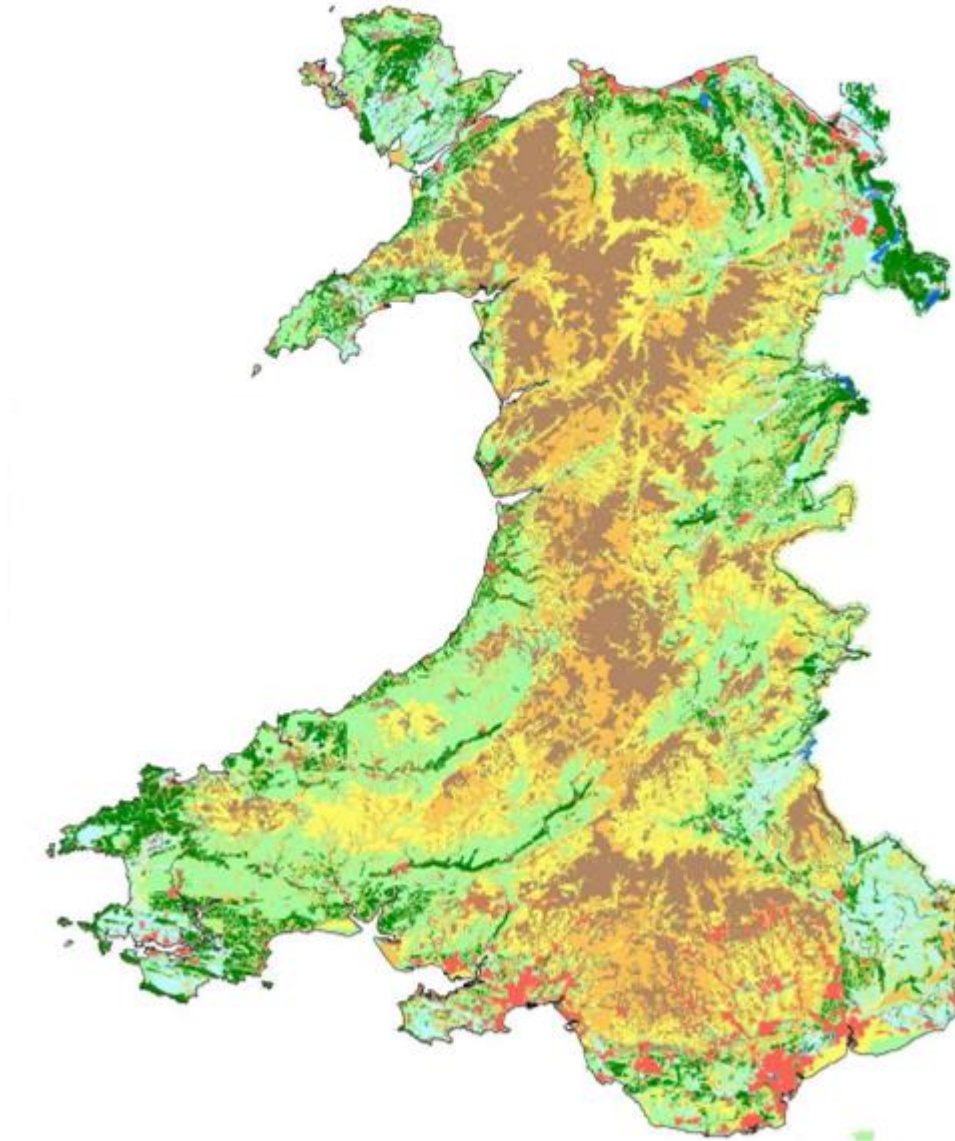
Recommendation 2. The Welsh Government must ensure it is fully encouraging and supporting tenant farmers to improve the soil they are farming. This could include financial support and supporting them to obtain certifications that will increase the value of their products.

Conclusion 2. We welcome soil testing requirements in the Sustainable Farming Scheme, however the Welsh Government must ensure the results are acted on via funding, or advice and guidance on how farmers can improve their land, or a combination of the two.

Conclusion 3. The next Government should examine the Nature Friendly Farming Network's suggestions for improving soil health and consider how they could be incorporated into future iterations of the Sustainable Farming Scheme.

5. Best and most versatile agricultural land

Figure 1 Agricultural Land Classification map of Wales⁴⁰



Dark blue - dark green denote grades 1-3a, light green - brown 3b - 5 and red as urban.

41. Farmland in Wales (and England) is graded under the Agricultural Land Classification (ALC) system. The ALC was developed in the 1960s by the Ministry of Agriculture, Fisheries and Food and grades land from Grade 1 top quality food-growing to Grade 5 of very poor quality, rough ground. Most land in England and Wales is Grade 3, good growing land, so that grade was subdivided in 1988 to

⁴⁰ The UKCP Climate data © Meteorological Offices 2019; Soil Data © Cranfield University 2019

provide more nuance. Under planning policy, land which is graded as ALC 1, 2 and 3a are considered, and often referred to, as the 'best and most versatile' land.

Planning policy

42. Welsh planning policy aims to protect the best quality agricultural land from development with the intention of retaining it for agricultural use. Planning Policy Wales states:

Agricultural land of grades 1, 2 and 3a of the Agricultural Land Classification system (ALC) is the best and most versatile, and should be conserved as a finite resource for the future.

When considering the search sequence and in development plan policies and development management decisions considerable weight should be given to protecting such land from development, because of its special importance.⁴¹

43. It states clearly "Land in grades 1, 2 and 3a should only be developed if there is an overriding need for the development". The policy allows some scope for higher grade land to be developed where it is part of a designation "which outweighs the agricultural considerations" but it is clear that ordinarily development should be on the lower grade land.⁴²

44. However, the Committee heard that some of the best and most versatile land in Wales has been lost to development, so this policy may not be working as designed. Professor Emmett told the Committee:

"We've used satellite data to look at how much arable and improved grassland do we have and how much urban and woodland do we have. And in the report, we quite clearly show ... that urban has expanded, and woodland has expanded, and we've lost improved grassland and we've lost arable land. And that arable and improved grassland tends to be on class 1, 2 and 3a."⁴³

45. Professor Emmett could not say exactly what the cause of this was, but she suggested "urban is now 6 per cent of Wales and arable is only 4 per cent. We're

⁴¹ [Planning Policy Wales](#), edition 12, February 2024

⁴² [Planning Policy Wales](#), edition 12, February 2024

⁴³ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 41

shifting, but it's not surprising when you think of it. Where do we put our towns and cities? It tends to be on the coast where the better land is. Where do we want our housing to be? Most people want them by where the jobs are, and that inevitably just means the urban creep."⁴⁴

46. The ERAMMP⁴⁵ report Wales National Trends and Glastir Evaluation notes "An increase in urban land cover of 28,200ha (+29%) which now represents 6% of Wales and a loss of 48,900ha (-4%) of Wales most productive improved land which now represents 44% of Wales."

47. NFU Cymru echoed concerns about the loss of high quality agricultural land to development. They told the Committee that "If we can produce in Wales a Well-being of Future Generations Act, we can produce another one that helps to protect soils in an appropriate way."⁴⁶ They highlighted:

*"Potentially, people who are making planning decisions just aren't close enough to the pressures of food security to fully understand the ramifications, and they're thinking as much about other issues. It's trying to get that balance."*⁴⁷

48. NFU Cymru suggested:

*"A decision-making framework is essential, really, so that everyone knows where they stand. It's not just for housing, this would be for renewable energy, if we're looking at solar parks, things like that, so that everyone knows where they stand. For pylons going across the middle of Wales, what are the impacts, what should be directing and driving our decisions?"*⁴⁸

Competing needs: decarbonisation of energy and food production

49. The FUW echoed these concerns "There will undoubtedly be pressure on BMV [best and most versatile] land from urban, mineral and land-based

⁴⁴ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 42

⁴⁵ Professor Emmett is the Scientific Lead for ERAMMP

⁴⁶ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 210

⁴⁷ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 211

⁴⁸ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 210

renewables, development and afforestation, however, the FUW would argue that food security in the future must be safeguarded.”⁴⁹

50. Whilst both the farming unions raised concerns about renewable developments posing a risk to food security they did say that a certain amount of renewables were important to farming. NFU Cymru cautioned against legislation banning renewables and said there needed to be a pragmatic middle option.⁵⁰ FUW told Members “we’ve lobbied for a long time for more support for renewable energy on-farm. Like you say, for that middle section, that creates so many win-wins, instead of needing to go down the route of solar panels plastering farmland.”⁵¹

51. The Country Land and Business Association highlighted the UK Government consultation, by DEFRA, on a new approach to land use in England⁵² “empowering decision makers with the toolkit to protect the most productive agricultural land and boost food security”. This consultation will inform the development of a ‘Land Use Framework’. Part of this consultation sought views on improvements needed on the quality, availability and accessibility of ALC data to support effective land use decisions.⁵³⁵⁴

Land grading

52. The Nature Friendly Farming Network raised some concerns around ALC data. They told Members:

“there are limitations in terms of the way we measure what the best and most versatile land is in Wales at the moment. As I understand it, the climate data that is related to land classification is dated. I think the data dates back between 1941 and 1980, so that doesn’t take into account the most recent changes in the climate. So, perhaps we are overestimating or underestimating the quality of some of our best farmland, and I do think that the scope and how we define the best land is also deficient, where we are looking at the physical limitations of the land. But perhaps we need to be more holistic and look at things like soil health, the ability of the land to capture and

⁴⁹ Written evidence, [FUW](#).

⁵⁰ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 220

⁵¹ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 222

⁵² Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 225

⁵³ Gov.uk [Government launches “national conversation” on land use](#).

⁵⁴ UK Government [Land Use Consultation](#), January 2025

sequester carbon and other ecosystem issues beyond food production too.”⁵⁵

53. The went on to say the ALC “maps are quite general too. That is, if we really want to look at planning applications, we can’t rely on the ALC maps. I do think that we would have to carry out more detailed surveys, at a field level, in order to enhance the planning system and applications.”⁵⁶

54. The National Preparedness Commission Report (2025) also suggested the ALC system should be reviewed with “more attention to the potential for food diversification and regional spread”.⁵⁷

55. In their written evidence the FUW cautioned against just focusing on the best and most versatile land. They told the Committee:

“other grades of land should not be disregarded or left unprotected for food production. Climate change is adding increasing stress to soil health on all types of land, particularly arable land which is generally classified as BMV. This is due to challenging growing conditions and extreme weather, which causes increased compaction or the loss of microbial activity due to drought, or increased levels of pests and pathogens from warmer, wetter weather. This will increase the need for other grades of land to ‘fill the gap’, whilst delivering on various other land use demands such as biodiversity, energy generation, carbon sequestration and development.”⁵⁸

56. The Deputy First Minister felt that the current planning policy around best and most versatile land in Wales was robust and ahead of the game. He told the Committee the current policy was:

“not an outright ban on development, but it has to leap some very high hurdles. So it’s not an outright ban because there are always tensions between development and other aspects, but what we can say is that the planning policy seeks to preserve BMV [best and most versatile] land as a finite resource, because we know it is, for the

⁵⁵ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 87

⁵⁶ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 88

⁵⁷ The National Prepared Commission, [Just in Case: narrowing the UK civil food resilience gap](#), February 2025

⁵⁸ Written evidence, [FUW](#)

*future. It also puts considerable weight on protecting such land from development because of that special importance. This scope and the importance of this policy is clarified in a 'Dear Chief Planning Officer' letter where it states that unless other significant material considerations indicate otherwise, it will be necessary to refuse permission. So, these bars are high. And we're ahead of the game, it's worth stressing as well. We think that we've got a really robust regime, and there have to be darn good reasons why somebody would say that the best quality land needs to be developed."*⁵⁹

Our view

There are a range of competing demands on our land including food production, energy generation and transmission and development for housing, commerce or other industrial uses. It is widely recognised that we are in the middle of a housing crisis, but at the same time ensuring food security must be an absolute priority for any government in any country. Finding a balance between these competing demands is a big challenge.

We do not believe a hard and fast rule for example banning development on certain grades of land should be implemented. However our best and most versatile land is currently being developed so the current planning system is not working as well as it should.

We believe the Welsh Government should develop a clear decision making framework. This framework should strengthen impetus to refuse permission to develop the best grades of land but also should look at how we might protect lower grade land and favour the 'grey belt'.

Decarbonising the energy grid is important and farmland has a role to play in this. However, it is clear there is already tension between developing land for renewables vs food production and we believe this is only likely to become a bigger issue in the future. The new decision making framework should address different types of land use and where one should be prioritised over the other.

We were concerned to hear that the ALC maps and data may not be strong enough to support planning decisions. This is an area the Welsh Government should examine and act on if they believe the data could be strengthened. As

⁵⁹ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 376

part of this work they should consider how land classifications may change in the future, for example due to climate change.

We were interested in the DEFRA consultation around a Land Use Framework. The Welsh Government should work with DEFRA to understand changes they may be making and learn any lessons from this work that could be applied in Wales.

Recommendation 3. The Welsh Government should develop a framework to support planning officers making decisions on applications for use of agricultural land. This framework should be developed with the aim of retaining the best land for agricultural use, set priorities between uses and be future proofed from a climate change perspective.

Recommendation 4. The Welsh Government should review the ALC data and maps to ensure they are still fit for purpose.

Conclusion 4. The Welsh Government should engage with DEFRA and follow the development and implementation of their Land Use Framework.

6. Regulation

57. The White Paper for the Agriculture (Wales) Act 2023 included proposals to create National Minimum Standards. It suggested these standards could “require farmers to maintain minimum soil cover as well as to minimise soil erosion and compaction”.⁶⁰

58. As part of this the White Paper proposed that GAEC⁶¹ 4 and 5, which require farmers to maintain minimum soil cover as well as to minimise soil erosion and compaction, should be included into the National Minimum Standards.⁶² However, the Agriculture (Wales) Bill when introduced did not include these powers.

59. The Committee heard calls to rekindle the idea of National Minimum Standards in order to support the development of soil health. These would apply to all farmers, not just those participating in the SFS. Professor Emmett said “We need national minimum standards for soil.” She explained soil health benchmarks could be created for Wales”

“so that farmers have a goal to aim for, and that they can start with flexibility, with support, thinking about, ‘Well, I’m in the bottom 10 per cent of carbon in my soil, for my type of soil, my climate, my what have you. How do I at least get to the middle ground? How do I even get into the top level of what’s possible in my soil?’”⁶³

60. Professor Williams explained that these standards could ensure farmers who choose not to join the SFS still protect their soil’s health. He told the Committee:

“What worries me in that respect is the fact that the [sustainable farming] scheme is opt-in and, potentially, you could foresee that those farms that are more focused on production and, inevitably, are likely to be more intensive, are the least likely to opt in. ... So, I guess that’s really where the national minimum standards come in, ... because if we do not get the uptake of SFS that we would all like to

⁶⁰ Agriculture (Wales) White Paper

⁶¹ Good Agricultural and Environment Condition - standards inherited from EU agriculture funding aiming to achieve sustainable agriculture and currently contained in the Basic Payments Scheme.

⁶² Agriculture (Wales) White Paper

⁶³ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 171

*see, if the budget isn't there or whatever, then we've got to be aware of not racing to the bottom."*⁶⁴

61. The Soil Association also warned:

*"There are potential risks to soils, water, and biodiversity arising from further intensification of agriculture if farmers choose not to participate in the SFS. Furthermore, value for public money is reduced if SLM [Sustainable Land Management] gains secured through scheme payments are offset by regulatory failure to control damaging practices or pollution on the same farm or elsewhere".*⁶⁵

62. However, the farming unions did not feel National Minimum Standards were the right solution. The FUW posed the question "if you're choosing to put in national minimum standards across the board, it's: where do you draw the line? So, if they're not getting paid for it, are you saying that this is something that absolutely anyone with anything to do with soil has to comply with?"⁶⁶

63. NFU Cymru suggested instead of imposing standards, the SFS should be designed so that everyone can join:

*"We are creating a scheme that is, essentially, going to be groundbreaking because it's something for Wales, made by Wales, set outside Europe and should be there to deliver on all of the sustainable land management objectives. And we have a duty to make sure that that scheme is accessible for all farmers and delivers at least the same benefit as BPS in terms of food security, biodiversity, climate, nature—all of those things."*⁶⁷

64. In a letter to the Committee, the Deputy First Minister explained that National Minimum Standards had not been included in the Agriculture (Wales) Act 2023 because:

"The regulatory baseline for agriculture, previously referred to as National Minimum Standards, already exists and establishes the

⁶⁴ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 175

⁶⁵ Written evidence, [The Soil Association](#)

⁶⁶ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 267

⁶⁷ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 277

minimum requirements every farmer and landowner must comply with, and the associated criminal offences for any serious contraventions."

65. However, the letter also said "GAEC 4 & 5 will apply to both BPS and SFS claimants."⁶⁸ The Deputy First Minister has also committed to bringing GAEC 5 into regulation within 18 months in his response to statutory review of the Control of Agricultural Pollution Regulations.⁶⁹

66. The SFS Scheme description includes a list of the GAECs "which are founded on regulations will be supported by guidance which set out in detail the obligations of a farmer who receives SFS payments." This list includes GAEC 2,⁷⁰ 3,⁷¹ 6⁷² and 7⁷³ but does not include GAEC 4 and 5.⁷⁴

Our View

We share the concerns raised in the evidence that the most intensive farmers are the ones who are also most likely not to engage with the SFS. As a result we are worried that the Welsh Government's principal mechanism for promoting soil improvement may not be effective to encourage farmers who are potentially causing the most harm to their soil to improve their practices. Their practices could undermine the good work of those subscribed to the SFS. The Welsh Government should set out its thinking and any contingency plans it has to encourage farmers who opt out of the SFS to improve their soil health. We were encouraged that the Deputy First Minister has committed to bringing GAEC 5 into regulation within 18 months in his response to statutory review of the Control of Agricultural Pollution Regulations.

We are pleased the Deputy First Minister's letter committed that GAEC 4 and 5 will apply to SFS claimants. However, we are concerned that they do not appear in the Scheme Description. The Welsh Government should set out the full list of GAEC that will apply to SFS claimants.

⁶⁸ [Letter from the Deputy First Minister to the Chair](#), 23 June 2025

⁶⁹ Gov.Wales [Welsh Government review highlights need for collective action to tackle water quality challenges](#)

⁷⁰ Abstraction of water for irrigation

⁷¹ Protection of groundwater against pollution

⁷² Maintenance of soil organic matter

⁷³ Retention of landscape features

⁷⁴ Gov.Wales [Sustainable Farming Scheme 2026: scheme description](#)

Recommendation 5. The Welsh Government should set out what its plans are to encourage farmers who do not engage with the Sustainable Farming Scheme to improve their soil health. As part of this it should detail its plans for regulation, including putting GAEC 4 and 5 on a statutory footing.

Conclusion 5. The Welsh Government should clarify exactly which GAECs will apply to SFS claimants

7. Targets

67. Section 4 of the Agriculture (Wales) Act 2023 requires the Welsh Ministers to prepare and publish indicators and targets to measure progress towards achieving the SLM objectives. The Soil Association would “like to see a soil health target and indicators included in this suite”.⁷⁵

68. The Soil Association written evidence states that “While the SFS may help, Wales lacks a binding soil health target and national soil strategy to drive lasting progress”. the Soil Association calls on the Welsh Government to commit to a legally binding target “underpinned by properly funded national soil monitoring scheme.”⁷⁶

69. Professor Emmett called for a national indicator on soil health saying:

“let’s just create a national minimum standard that says, ‘We’ve got the structure. It’s not contaminated, it’s got enough organic matter, it’s not too acid’, and farmers are encouraged to monitor that and respond to it and make their soil fit and be at least above that minimum standard.”⁷⁷

70. However the Country Land and Business Association argued against the introduction of targets, saying the existing regulatory framework was “not disappearing, because SFS is beginning.” They went on to suggest:

“We’ve also got the Environmental Impact Assessments, EIAs, which you need to apply for before you’re changing any land use. So, I think it is probably an opportunity for Welsh Government to explain these things a bit better and provide the guidance in a more understandable way.”⁷⁸

71. NFU Cymru said it is very difficult to put a target on soils “because there’s so much variability across soil types across Wales, depending on your height of land, the sector that you’re in. There are so many things that can alter it.”⁷⁹

⁷⁵ Written Evidence, [The Soil Association](#)

⁷⁶ Written Evidence, [The Soil Association](#)

⁷⁷ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 173

⁷⁸ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 260

⁷⁹ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 171

72. The Deputy First Minister told the Committee “the current approach we’ve got with the soil indicators is the right one for what we’re doing in Wales. Our monitoring and our indicators are tailored really to the needs of us here in Wales.” He went on to say the practicality of statutory targets and determining what is a healthy soil is fraught with challenges. He explained:

“The challenge comes from the different capacity of different soil types to deliver different ecosystem services within climate and land use constraints, and I have to say the requirements of different stakeholders as well.”⁸⁰

Our View

We accept that it is challenging to introduce a legally binding target for soil health, not least because of the variability across Wales. However, this should not be a reason not to legislate. Nonetheless, we are not convinced that legally binding targets are currently the correct course of action.

We support calls for the Welsh Government to clarify the guidance and advice to support improvement of soil health and this should be for all farmers, not just be via the SFS.. This support and advice could include guidance on a minimum expected standard.

It is currently not possible to estimate the impact of the SFS on soil health as uptake is still an unknown factor. However, if the Government introduced a voluntary minimum standard in the form of a target they could measure progress against this and then, if progress is not achieved via the SFS, the Government could consider regulating to create a legally enforceable minimum standard.

Recommendation 6. The Welsh Government should clarify the guidance around soil health. As part of this they should consider creating a voluntary minimum standard for soil health which they would then use to measure progress, with the possibility that this voluntary standard could become a statutory minimum if progress is not achieved.

⁸⁰ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraphs 248-249

8. Private investment and the soil carbon credit market

73. The FUW described the current soil carbon credit market as somewhat of a 'wild west' in their evidence. They explained that there are established codes for woodlands and peatlands and that a "singular Soil Carbon Code is desperately needed, to standardise measuring, modelling, permanence requirements and provide governance around selling Carbon credits from soils."⁸¹

74. The Soil Association supported this assertion : "Apart from the unregulated aspects of the voluntary carbon market and the potential for that to just perpetuate a status quo of offsetting, there is this need also to think broader than carbon and look at nature alongside climate."⁸²

75. They went on to say that "there's a real awareness in the supply chain and within the financial institutions of how their business model is so exposed to the risks of climate change and nature loss." They added that investors "are actually really looking at how to de-risk, and that means supporting the sorts of farming practices and systems that build soil health and build that resilience."⁸³

76. The Nature Friendly Farming Network also used the 'wild west' analogy for the soil carbon credit market. They said that "there's not enough money in the public purse to fund environmental restoration in Wales. The 'Scale of Need' report from last year highlighted we need £600 million every year over 10 years minimum to deliver on our environmental targets. That money just isn't there. So, it's a necessity, really, to tap into private markets". They suggested:

"there's a role for Government to help get a degree of consistency and a bit of guarantee and security, maybe, for farmers to partake in private finance schemes."⁸⁴

77. Professor Emmett said that in the EU many food and drink companies "are moving away from carbon credits to what's called 'value chains' and thinking about soil health in the round". This meant companies are looking to create

⁸¹ Written evidence, [FUW](#)

⁸² Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 143

⁸³ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 143

⁸⁴ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 149

branding where people recognise that they look after the land better, they encourage nature and they look after and restore soil.⁸⁵

78. Professor Emmett told the Committee she thought in the future people would look back at carbon credits as a “very narrow way of thinking” and that:

“I would love Wales to be a leader in the field of how we partner public and private to do major landscape restoration projects, and help our farmers to actually deliver the transformation that we want. At the moment, I’m not quite seeing how we get into that. But there’s the Green Finance Institute, Finance Earth, there are these companies that are trying to bring these things together. And I would just encourage Welsh Gov to work with those organisations ... Because we keep hearing there’s billions out there, if only we can find out how to make sure that they are robust and we don’t go down the greenwashing or wishing line.”⁸⁶

79. The Deputy First Minister told the Committee “it’s right to be cautious about some of the schemes that are out there, not just within soil carbon sequestration, but also on the wider piste.” He said the Welsh Government had “consulted in Wales on the principles of sustainable investment behind ethical investment to the very highest standards in terms not only of carbon, but also biodiversity as well, because we have to be wary.”

80. He also told Members he would not describe the soil carbon credit market as the wild west but:

“I ... “ we certainly know that there have been schemes before that have found themselves undermined: when people look at it in detail, they say, ‘What are you really adding here, beyond what’s already there?’”⁸⁷

Our view

It is clear there is an issue with the current carbon credit market. This could leave farmers exposed to bad practices but also may lead to sub optimal investments. Leveraging private investment and ensuring farmers are rewarded

⁸⁵ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 186

⁸⁶ Economy, Trade and Rural Affairs Committee, 30 April 2025, Paragraph 186

⁸⁷ Economy, Trade and Rural Affairs Committee, 15 May 2025, Paragraph 387

for good stewardship of their lands are two very important aspects the Welsh Government should be pursuing as part of its soil health policy.

In the short term the Welsh Government should ensure farmers have access to high quality advice about the carbon credit market. In the longer term the next Welsh Government should review the private investment landscape, with a view to exploring the relative merits of moving from carbon credits to value chains.

Recommendation 7. The Welsh Government should, as a matter of urgency, ensure high quality advice is available for farmers exploring the carbon credit market.

Conclusion 6. The next Welsh Government should review the private investment landscape, with a view to exploring the relative merits of moving from carbon credits to value chains.

Annex 1: List of oral evidence sessions.

The following witnesses provided oral evidence to the committee on the dates noted below. [Transcripts](#) of all oral evidence sessions can be viewed on the [Committee's website](#).

Date	Name and Organisation
30 April 2025	Professor Bridget Emmett, Principal Scientist, UK Centre for Ecology and Hydrology Dr William Stiles, Lecturer in Soil Science, Department of Life Sciences, Aberystwyth University Professor Prysor Williams, Chair of Agriculture and Environment, School of Environmental and Natural Sciences, Bangor University
15 May 2025	Andrew Tuddenham, Head of Policy, Soil Association Cymru Rhys Evans, Wales Manager, Nature Friendly Farming Network Ellen Fay, co-Executive Director, Sustainable Soils Alliance Abi Reader, Deputy President, NFU Cymru Teleri Fielden, Policy Officer, Farmers' Union of Wales (FUW) Fraser McAuley, Senior Policy Adviser, Country Land and Business Association (CLA) Huw Irranca-Davies MS, Deputy First Minister and Cabinet Secretary for Climate Change and Rural Affairs, Welsh Government James Cooke, Head of Agricultural Land Use Policy, Welsh Government Andrew Chambers, Head of Agriculture Legislative Framework Branch, Welsh Government Naomi Matthiessen, Deputy Director - Landscapes, Nature & Forestry, Welsh Government

Annex 2: List of written evidence

The following people and organisations provided written evidence to the Committee. All written evidence and additional written information can be viewed on the Committee's website.

Organisation or Individual	Meeting Date
Aberystwyth University	30 April 2025
Professor Bridget Emmett	30 April 2025
Soil Association Cymru	15 May 2025
Nature Friendly Farming Network Cymru	15 May 2025
Farmers' Union of Wales (FUW)	15 May 2025
National Farmers' Union Cymru (NFU)	15 May 2025
Welsh Government	15 May 2025

Additional Information

Title	Date
National Trust Cymru	20 June 2025