

Society for the Environment response to the MP inquiry into soil health (2022-23)

Introduction

Who we are

Operating under a Royal Charter, The Society for the Environment (SocEnv) is the body responsible for championing and registering professionals with proven competence in their environmental work. We are the custodian of three professional registrations: Chartered Environmentalist (CEnv), Registered Environmental Practitioner (REnvP) and Registered Environmental Technician (REnvTech).

We work in partnership with our Licensed Members, to ensure the quality, relevance and awareness of our registrations and enable our partners and registrants to work together.

Our cross-sector reach and network of environmental professionals mean we are ideally placed to facilitate work in this area – helping guide those with expertise to collaborate and implement solutions to help protect our soils.

Our work to protect and restore soils

The importance of soils and stones has too often been neglected, misunderstood as a waste in development projects as opposed to hugely valuable resources: “Soil provides essential goods and services to society, including the production of food, fibre and (bio)fuel; the regulation of water and carbon cycles; the protection of heritage, space for infrastructure and economic development; and the support of natural ecosystems”¹. The crisis of soil degradation is causing significant threats to biodiversity, our food supply and climate.

In Spring 2021, SocEnv published our hugely well-received Soils and Stones report led by Chartered Environmentalists, and in the process rectified the glaring need for a joined-up study on soils. The report, which can be accessed for free via [our website](#), brought together good practice from a wide range of sectors, including construction, resource management, forestry, engineering, and agricultural/land management.

Since the report’s publication, we have been working to deliver on its key recommendations. In order to influence policy, public opinion and industry on the huge value of these resources, we will shortly be publishing a document entitled ‘The Ten Principles of Good Soils and Stones Management’.

Seeking to provide a clear cross-sector framework of how to use and reuse these vital resources, the ten principles give soils a quantifiable value that will:

- Preserve, protect, remediate, and enhance natural soils as a living system.
- Present a hierarchy of options for managing soils, excavated and reclaimed soils, stones and dredgings.

¹ SocEnv (2021). Soils and Stones Report, p.28. [21FINAL-Soils-and-Stones-report.pdf \(socenv.org.uk\)](#)

- Make soil a material consideration in all land-use and development projects.

The principles will be of use to many, including legislators, land managers, developers, consultants, and soils practitioners.

Our approach to this response

We are grateful for the opportunity to respond to this vital inquiry.

Our response is underpinned by knowing how important long-term and joined-up action is. We know that restoring and protecting our soils requires urgent action but is also dependent on a long-term view: for the actions we take now will have a big impact on our future, including when it comes to our health and food supply.

Our actions should also be based on an understanding of the integrated nature of the environmental, economic, and social – this includes the need for a more joined-up approach across Government departments, called for by the recent Office for Environmental Protection (OEP) report on the progress of commitments made under the Twenty-five-year Environment Plan². For example, policymaking often focuses on the role of soils within agriculture and food production and neglects the value of soils in the construction sector and other land management activities. We are therefore pleased to see the importance of soils in construction recognised in the recently published Environmental Improvement Plan³, although we argue that the commitments made should be strengthened to reflect the crisis of soils degradation. We discuss this further on page 9.

Throughout this response we will be referring to our 2021 report as well as touching on the priorities of soil use and reuse outlined in our upcoming principles document. We are always happy to discuss any of the arguments outlined in this response.

² Office for Environmental Protection (2023). Progress in improving the natural environment in England, 2021/2022, p.11. [Progress in improving the natural environment in England, 2021/2022 | Office for Environmental Protection \(theoep.org.uk\)](#)

³ GOV.UK. 'Environmental Improvement Plan 2023'. Published 31 January 2023. <https://www.gov.uk/government/publications/environmental-improvement-plan>

Response to the inquiry questions:

1. How can the Government measure progress towards its goal of making all soils sustainably managed by 2030? What are the challenges in gathering data to measure soil health and how can these barriers be overcome?

As noted in our 2021 report⁴, soils can play an important role in achieving Biodiversity Net Gain and Net Zero, among other commitments that the UK Government has made. However, the hugely positive role played by soils can only be achieved if they are healthy, with some key indicators of soil health being soil organic matter, soil structure, soil biota, air to water ratio, nutrients and pH.

Despite the key indicators above being available to measure soil health, they are limited in their usefulness by the variability of soils and a general lack of tools available to measure the key indicators in any given soil⁵.

In our 2021 report, we recommended that baselines for soil quality and health be developed, across different land-use types. This is in line with the Government's proposal as outlined in the Twenty-five-year Environment Plan, to build a soil health index so farms can monitor the implementation of best practices⁶. It's worth noting that in the aforementioned OEP report, they found they couldn't assess performance against the 'healthy soils' indicator in the Twenty-five-year Environment Plan "due to a lack of suitable data and analysis"⁷, posing serious threat to the achievability of the goal to make soils sustainably managed by 2030⁸.

We recommend in our upcoming principles document that the value of soil health is realised through the following means:

- Promote and enhance the inherent value of soils as part of a wider integrated environmental system (demonstrating the links between healthy soils and carbon sequestration, food security and biodiversity).
- Implement financial metrics for the life cycle of all projects that are based on the impact on soil value. This will help drive the market for offsetting (for example: metrics for biodiversity loss, carbon sequestration and loss of food security).
- Periodically benchmark the natural and economic value of UK soils against both baseline UK and international metrics, taking into account global social, economic and environmental sustainability (including the supply chain impacts of ensuring UK food security, and the valuation of soils).

⁴ SocEnv (2021). Soils and Stones Report.

⁵ E. Stockdale, RICS (2022). 'Scorecard tool can help improve soil health'. RICS Land Journal. <https://ww3.rics.org/uk/en/journals/land-journal/scorecard-tool-can-help-improve-soil-health-.html>

⁶ SocEnv (2021). Soils and Stones Report, p.26.

⁷ Office for Environmental Protection (2023). Progress in improving the natural environment in England, 2021/2022, p.23.

⁸ Ibid, p. 47.

2. Do current regulations ensure that all landowners/land managers maintain and/or improve soil health? If not, how should they be improved?

As noted in our 2021 report: “the overall aim for any land use should be sustainability, i.e., maintaining the land use and its required output whilst protecting and potentially enhancing soil quality and avoiding land degradation”⁹.

However, the weaknesses of regulations – alongside limited monitoring and enforcement¹⁰ mean that not all landowners or land managers are working to maintain and/or improve soil health.

Notable limitations of current versions of Codes and Protocols, such as the Definition of Waste Code of Practice (DoWCoP) and Aggregates Quality Protocol (QP), include inconsistent application, a lack of clarity leading to confusion, and limited use of technologies and tools in the regulatory and planning process acting as barriers to achieve best practice.

Ways the regulations can be improved are noted in our 2021 report and include:

- Ensure regulations are underpinned by an understanding of soils and soil-making materials as natural resources, with a presumption of reuse except where there are barriers, such as contaminants.
- Make the new version of DoWCoP and Aggregates QP more understandable and consistent across all sectors¹¹.
- Provide incentives for landowners to improve soil health, such as incorporating biodiversity and carbon offsets into Codes and Protocols, that can be used by all land-use sectors. This will encourage land values to reflect soil health. Even if that means taking land out of production to allow soil health to improve naturally, this will help to incentivise food security through long-term sustainable use of agricultural land.
- Use digital platforms, for example an extended DoWCoP data management, tracking and logistics platform, supporting self-regulation for compliant operators and a platform to monitor land use including land-use changes in relation to soil health, carbon intensity and sequestration¹².
- Review waste exemptions, permits and the process for meeting “end of waste” status – current barriers to the safe and sustainable reuse of soils and dredgings¹³.
- Improve use of technologies and tools in the regulatory and planning process, including Geographical information systems (GIS) and software modelling, with benefits such as restoring healthy soil and improving functionality¹⁴.
- Improve materials tracking, including better collaboration between industry and regulators and a consistent auditing process for soil reuse across sectors¹⁵.
- A better controls mechanism for use of aggregates and fabricated stones derived from soil washing, crushing and related activities to produce a product. An aggregates QP

⁹ SocEnv (2021). Soils and Stones Report, p.20.

¹⁰ Ibid, p.1.

¹¹ Ibid, p.7.

¹² Ibid, p.4.

¹³ Ibid, p.26.

¹⁴ Ibid, p.33.

¹⁵ Ibid, pp.7-8.

clarification for built environment is required, rather than use of an infrastructure derived mechanism that has been misused.

- Create a new, cross-sectoral ACoP, adapting the current DoWCoP to suit the objective of sustaining healthy soils¹⁶. In our upcoming principles document, we advocate that there should be a common quality standard for soil health in relation to land-use, taking underlying soil conditions into account in the choice of land use. There should also be a common principle to understand and identify soil value at the start of the master planning stage of a project or change of land-use. This should involve defining the status of in situ soils and any excavated soils and stones according to their inherent value and as an end-use resource, rather than by the intention to discard them as surplus to the needs of the project. We also advocate the implementation of a soils management hierarchy.

¹⁶ Ibid, p.33.

3. Will the standards under Environmental Land Management schemes (ELMs) have sufficient ambition and flexibility to restore soils across different types of agricultural land? What are the threats and opportunities for soil health as ELMs are introduced?

We support the philosophy behind Environmental Land Management schemes (ELMs) – to incentivise farmers to protect and enhance nature, whilst delivering sustainable food production. ELMs builds on the concept of ‘public money for public goods’ which was central to the Agriculture Act 2020¹⁷, envisioning a transformation to an agricultural system which can produce the food we need in a way that doesn’t harm our soils.

In January 2023, we were pleased to see the announcement of increased payments for farmers and landowners through the Countryside Stewardship and Sustainable Farming Incentive schemes¹⁸. We welcome greater incentives and their potential to drive more sustainable practice, with these schemes covering important areas including soil and moorland improvement, habitat management, and reducing inorganic fertiliser and pesticide use.

We welcome the recently published expanded set of standards for 2023, but to ensure that ELMs can achieve their maximum positive impact for soils, we would also like to see the following:

- Thorough monitoring and provision of evidence in relation to the delivery of intended outcomes. The need for improved impact assessment and evidence was called for in the aforementioned OEP report¹⁹.
- Greater alignment and coherence across policies is needed, for example ELMs need to be aligned with legally binding environmental targets including on biodiversity and clean air and water²⁰.
- Encourage improved recycling of organic wastes into quality compost and anaerobic digestate (thereby supplying primarily stable organic carbon and crop nutrients, respectively)²¹.
- A joined-up approach to offset trading would also help maximise the impact of ELMs, meaning soil health standards would be auditable and facilitate the private sector to drive soil health restoration.

¹⁷ GOV.UK. ‘Landmark Agriculture Bill becomes law’. 11 November 2020. [Landmark Agriculture Bill becomes law - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/landmark-agriculture-bill-becomes-law)

¹⁸GOV.UK. ‘Government to pay more to farmers who protect and enhance the environment’. 5 January 2023. [Government to pay more to farmers who protect and enhance the environment - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/news/government-to-pay-more-to-farmers-who-protect-and-enhance-the-environment)

¹⁹ Office for Environmental Protection (2023). Progress in improving the natural environment in England, 2021/2022, p.73.

²⁰ Ibid, p.57.

²¹ SocEnv (2021). Soils and Stones Report, pp.45-46.

4. What changes do we need to see in the wider food and agriculture sector to encourage better soil management and how can the Government support this transition?

When it comes to how soils should be managed within the food and agriculture sector, our 2021 report highlights the key point: “The issue for any land manager is understanding the characteristics and quality of the soil, matching this with intended land use, and applying appropriate management practices to sustain and improve the soil characteristics required for that land use. A lack of understanding of the land and soil and failure to apply appropriate management will lead to land degradation.”²²

The impacts of poor soil management are numerous but just one notable example is lower productivity, meaning lower crop yields and added to that the costs of restoring land²³.

Changes needed to help encourage better soil management include:

- As recommended in our 2021 report, if we are to achieve the aim of making all soils sustainably managed by 2030, we must look beyond pure incentivisation outlined in ELMs and “improve training opportunities for farmers, soil and land-use professionals, and advisers by allocating funds for technical advice to support farmers and land managers”²⁴. This includes providing case studies and best practice on suitable land use developed by those with expertise on good soil management – and we can help with this via our environmental professional network.
- Develop hydroponic and other non-soil food solutions, including vertical farming inside urban areas, to reduce horticultural land pressure in food production²⁵.
- Encourage the development of a national water management system to monitor and manage water used for irrigation and choice of suitable crops²⁶.
- Apply 'waste' sand, silts, and clays to improve soil texture where the soils capabilities are otherwise limited - i.e., the addition of clays on sandy soils and soils to clay soils.
- Revise and update the current land capability classification systems for both agriculture and forestry, including the updating of the meteorological data set, for use by land managers to determine climatic limitations and irrigation for crop growing purposes²⁷.
- Consider the role agricultural land could play in the management of water retention strategies to prevent flooding events, and how farmers could be compensated for this²⁸.

²² Ibid, p. 25.

²³ Ibid, p.22.

²⁴ Ibid, p.26.

²⁵ Ibid, p.46.

²⁶ Ibid, p.46.

²⁷ Ibid, p.26.

²⁸ Ibid, p.46.

5. What does the UK Government need to do to tackle other stressors on soil health such as soil contamination?

Contaminated soil is a threat to health and the environment. In the first instance it's best to prevent soil from being contaminated, but where it is already contaminated there are ways in which the problem can be addressed:

- Raise awareness of good practice which shows how contaminated soils can be treated to enable reuse. Please see a case study in our Soils and Stones report as just one example, whereby surplus contaminated soils were excavated and transported as waste to the material treatment permit area. They were then treated to be chemically and geotechnically suitable and beneficially reused²⁹.
- Our 2021 report also refers to a barrier to reuse identified within the Contaminated Land Regulations: “[there is] a specific and prevalent issue where low-risk asbestos fragments in soil and stones (typically in pile mats constructed of recycled aggregate) is preferentially treated over higher risk (i.e., more friable) microscopic asbestos contamination because the former attracts the ‘hazardous waste’ classification... Classification as a waste may prevent reuse”³⁰.
- Contamination assessment and reuse criteria should be site specific and risk based – and follow the SURF UK and Environment Agency LCRM approach to assessing materials and maximising potential reuse and recovery options. Materials management should ensure that soils reuse not only addresses soil contamination but also enhances and enables soil function in any reuse setting. Reuse of some poor-quality soils can enable site biodiversity by creating mosaics habitats and the landscaping use of soils should take this into account. A one size fits all approach should be avoided.
- Allow land values to reflect soil health based on quantifiable measures of biodiversity, carbon sequestration and natural fertility. Introduce measures further to penalise soil compaction and pollution from sources such as sewage spills, oil spills and waste activity.
- Introduce a governance system to routinely audit soil health.

²⁹ Ibid, p.15.

³⁰ Ibid, p.13.

Specific comments on the Environmental Improvement Plan

We are pleased to see the value of soils and stones recognised in the recently published Environmental Improvement Plan³¹, including the role of soils in construction, and welcome the recognition that healthy soils provide natural protection against the impacts of climate change. We also look forward to viewing the revised Code of Practice for the sustainable use of soil on construction sites later this year, with the hope that our recommendations made in our response to question two, as well as our 2021 report, are taken into consideration.

However, we argue that the commitments made in the plan remain disproportionately weak in response to the crisis of soils degradation. For example, we would like to see increased ambition to the plan, which proposes to bring at least 40% of England's agricultural soil into sustainable management by 2028 (and increase this to 60% by 2030). We would also argue that the plan to begin piloting a soil Reuse and Storage Depot scheme in 2026 – while welcome in encouraging remediation and reuse of soils – should be brought forward.

³¹ GOV.UK. 'Environmental Improvement Plan 2023'. Published 31 January 2023.