



House of Commons
Environmental Audit Committee

**Soil Health:
Government Response
to the Committee's
First Report of Session
2016–17**

**Third Special Report of Session
2016–17**

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Environmental Audit Committee

The Environmental Audit Committee is appointed by the House of Commons to consider to what extent the policies and programmes of government departments and non-departmental public bodies contribute to environmental protection and sustainable development; to audit their performance against such targets as may be set for them by Her Majesty's Ministers; and to report thereon to the House.

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Publication

Committee reports are published on the Committee's website at www.parliament.uk/eacom and in print by Order of the House.

Evidence relating to this report is published on the [inquiry publications page](#) of the Committee's website.

Committee staff

The current staff of the Committee are David Slater (Clerk), Carl Baker (Second Clerk), Tom Leveridge (Senior Committee Specialist), Stanley Kwong (Committee Specialist), Ameet Chudasama (Senior Committee Assistant), Baris Tufekci (Committee Assistant), and Nicholas Davies (Media Officer).

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Third Special Report

The Environmental Audit Committee published its First Report of Session 2016–17, *Soil Health* (HC 180), on 2 June 2016. The Government's response was received on 25 August 2016 and is appended to this report.

Appendix: Government response

Introduction

The Government welcomes the House of Commons Environmental Audit Committee report on 'Soil Health'. As the Committee has highlighted, soil is essential for underpinning a range of benefits including agricultural production and climate change mitigation. This is why the then Government set out the aim in 2011 of managing soils sustainably and tackling degradation threats by 2030. We stand by that aim.

As outlined in the evidence provided to the Committee, Government is taking a number of actions to protect agricultural soils, such as outcome-based cross-compliance soils rules and funding to protect soil and water and improve flood resilience which is available through existing Environmental Stewardship agri-environment agreements and through the new Countryside Stewardship scheme. There are also protections through planning to safeguard our best and most versatile agricultural land, restrictions on certain activities (e.g. fertilisers) and the Farming Advice Service along with the Catchment Sensitive Farming Service all play a role. We are also working in collaboration with the Research Councils on an ambitious research programme to improve our understanding of soil condition and resilience.

A fundamental element of this response relates to the development of a long term plan for the environment to which Government is committed.

Soils play a vital role and we now have the opportunity to consider a long-term vision for the environment we want in Britain following the EU referendum vote. Development of the new approach will be informed by significant engagement with a wide range of interests to determine that vision and to work together to deliver it.

Funding for remediation

1. We are disappointed that Defra's recently-announced temporary funding for contamination clean-up does not match the scale of the problem and the possible implications for regional inequality and public health. Funding should match the previous scheme—the £17.5m made available in 2009–10 amounts to around £19.6m in 2016–17 prices—and Defra should consider an ongoing dedicated funding stream for Part 2A. Defra should undertake a detailed assessment of the effects of its earlier decision to withdraw capital grant funding for contaminated land remediation, including (a) the ability of local authorities to meet their statutory duties in the absence of this funding, and (b) the consequences for health and inequality. DCLG should make clear what proportion of funds allocated to local authorities through the Revenue Support Grant are in service of statutory contaminated land duties. (Paragraph 24)

Government is not in any way complacent about contaminated land. It is correct that funding was provided to local authorities between 1990 to 2014 as a means of supplementing but not replacing expenditure for cleaning up (remediating) contamination. Government recognises that although an estimated 90% of remediation of contaminated sites is market driven and occurs under the planning regime, there will continue to be sites which are not suitable to be, or have previously been developed and that will therefore require remediation. It is clear that there is a statutory duty on local authorities to identify these sites in their local area and identify who is liable for the costs of cleaning up the contaminated land, serve a notice and rigorously pursue those deemed responsible as specified in the Statutory Guidance.

Government has invested a considerable amount of resource into simplifying the Part 2A regime and publishing revised Statutory Guidance in 2012 in order to provide greater clarity to regulators over when land should be determined as contaminated under Part 2A. This was the most significant revision to the Statutory Guidance since it was first published in 2000 and an extensive consultation process with stakeholders, including local authorities, formed part of the process. Defra has also funded significant research into what constitutes 'normal' background concentrations of contaminants in soil and developed new 'Category 4' screening levels to allow low risk land to be assessed more quickly and easily. The results of this work supports local authorities and the Environment Agency with their obligations under the Part 2A regime through a more stringent, risk-based approach to identifying and remediating contaminated land, meaning more resource can be directed to those sites most in need.

Defra carried out research in 2009¹ on the potential health effects of contaminated land. The research did not reach any conclusions on evidence of direct health impacts from contaminants in soil.

The origins of contaminated land funding date back to the 1990 Supplementary Credit Approval (SCA) programme, put in place to support local authorities (LAs) in dealing with the legacy of contamination on historic landfill sites. After Part 2A came into force the remit of the programme was widened to cover other types of orphan Part 2A sites and stimulate remediation of contaminated sites. There was no guarantee of funding year-on-year. No impact assessment was undertaken on the cessation of the grant scheme following a Spending Review, as funding to support local authorities in fulfilling their statutory obligations under Part 2A of the Environmental Protection Act 1990 remained in the form of the Revenue Support Grant. Local authorities can continue to fulfil those duties required by law and, as an example, in 2014 Wakefield Council committed £750k over 5 years toward the investigation and remediation of contaminated land². Additionally, funds are potentially available through Local Enterprise Partnerships³ - for example the clean-up of a contaminated tar works owned by Newcastle City Council is currently being funded through the North East Local Enterprise Partnership (NELEP).

Revenue Support Grant is an unringfenced block grant covering many services. It is up to local authorities to decide how much funding is allocated to any service based on local

1 <http://sciencesearch.defra.gov.uk/Default.aspx?Module=More&Location=None&ProjectID=16185>

2 <http://mg.wakefield.gov.uk/documents/s59452/> (nb: paste into browser)

3 <https://www.gov.uk/government/policies/local-enterprise-partnerships-leps-and-enterprise-zones>

priorities and they are held to account locally. The Chancellor announced at the 2015 Autumn Statement that local government would be moving to a 100% business rates retention system by the end of the Parliament, moving towards self-sufficiency.

Data gathering on contaminated land

2. Defra should begin annual reporting of the state of contaminated land in England and Wales from 2017/18, in line with many other local authority-level data collections. All local authorities should be expected to respond, as the law requires. This data need not be as detailed as the current, occasional, Environment Agency surveys—but should cover at minimum (a) number of sites identified, (b) number of sites remediated including funding category, and (c) level of resource available at a local level to carry out Part 2A duties. Meanwhile, Defra should continue to seek data from councils who did not respond to the recent survey, and should provide reassurance on whether any authorities failed to respond to both of the two most recent surveys. (Paragraph 28)

Contaminated land policy is a devolved issue and Welsh Government are responsible for monitoring in Wales. The government's responsibility is to generate a national understanding of regulatory activity on contaminated land and this can be achieved by drawing on a representative sample as was the case with the most recent survey referred to by the Committee. We believe it is for the local authority to develop a detailed understanding of activity in their local area. However, Government will explore whether any authorities were unable to respond to the two most recent surveys.

Action to improve soil organic matter

3. At COP21 the Government signed up to an initiative to increase soil carbon levels by 0.4% per year: as part of the 25-year environment plan, it should set out specific, measurable and time-limited actions that will be taken to achieve this goal. (Paragraph 53)

Government agrees that Soil Organic Matter (SOM) has an extremely important role to play and recognises that better management of our soils can produce a range of benefits. We continue to investigate measures to increase SOM. This will then be reflected within the Government's plan for the environment as we now consider a long-term vision for the type of environment we want in Britain following the EU referendum vote.

The '4 per 1000' initiative invites all partners to declare or to implement practical programmes for carbon sequestration in soil and the types of farming methods used to promote it. Government has signed up in support of France's '4 per 1000' initiative and a key feature will be information exchange - the initiative provides an opportunity for the UK to share the work we already undertake ranging from large scale peatland restoration to how we implement the Common Agricultural Policy (CAP). At the same time, other members of the initiative will provide us with a worldwide resource from which to learn.

A "0.4%" annual growth rate of soil carbon would offset the present increase in atmospheric CO₂. This figure is a worldwide average and will vary from soil to soil – some soil has more carbon than others due to its inherent nature, or as an outcome of its condition, which comes about through how it is managed.

There are limited opportunities under UK conditions to sequester carbon in mineral soils. Permanent land use change from cropland to grassland or forestry offers the greatest potential (10% of England's land area is now wooded, doubling since the turn of the 20th century). Land management activities such as applying organic materials (manures, green compost etc.) can play a limited role. The main exception is peatlands – the UK has a particularly high proportion of peatlands (around 11% land area), which are currently emitting around 21MtCO₂e pa.

Government is already working with the International Union for Conservation of Nature (IUCN) to develop a UK Peatland Strategy with the overarching aim of providing a long-term framework for sustainable management of UK peatlands. At the conclusion of the Spending Review, HMT announced that £100m capital funding will be invested directly in projects to support the natural environment including the restoration of peatlands. The Peatland Strategy will play a key role in the targeting of this resource.

However, government investment alone should not be solely relied upon and it is important to recognise the important role the private sector will play through the Peatland Code. This is a private sector mechanism to support peatland restoration and was developed by the IUCN (International Union for Conservation of Nature) UK peatland programme partnership and is supported by Government.

4. The Government should take tougher action to tackle land use practices which degrade peat, such as unnecessary burning and draining when crops are absent. It should set out what has been learned about lowland peat management from the research it undertook after the 2011 White Paper and explain how this will be used to inform future action. The Government should also step up its peatland restoration programme. The upcoming 25-year environment plan should explain what measurable and time-bound actions will be taken to first halt and then reverse peatland degradation while minimising the impact on agricultural capacity. (Paragraph 54)

Government agrees which is why the UK has already invested £millions into large scale peatland restoration projects such as the Dark Peak Nature Improvement Area⁴. Over the next 5 years, £100m capital funding will be invested directly in projects to support the natural environment, including £3.2m for the Bolton Fell peatland restoration project. Peatlands are the most important soils for carbon sequestration, they are responsible for filtering most of our drinking water, play a role in flood risk management, and are internationally important habitats.

A UK wide statement by the four countries' environment ministers was published in February 2013 setting out their intent to protect and enhance the natural capital provided by peatlands. This advocated restoration action along with the development of a private sector mechanism to support peatland restoration (the UK Peatland Code). The Peatland Code (a voluntary standard for peatland restoration) was developed by the IUCN (International Union for Conservation of Nature) UK peatland programme partnership and is supported by Government. Natural England has developed a Blanket Bog Restoration Strategy⁵ which is based on a shared commitment to work collaboratively amongst landowners, land managers and stakeholders to achieve sustainable outcomes.

4 www.naturalengland.org.uk/ourwork/conservation/biodiversity/funding/nia/projects/darkpeak.aspx

5 <http://publications.naturalengland.org.uk/publication/5476256970702848>

In 2011 the Government commissioned research in order to address an identified gap in knowledge regarding the carbon and greenhouse gas (GHG) balance of lowland peatlands in England and Wales. The report has produced carbon budgets for different land uses on peat which will allow us to generate UK specific emission factors which will feed into improving the UK greenhouse gas (GHG) inventory. The report will be published later in the year.

Guidance on rotational burning practice is provided by Defra through the 'The Heather and Grass Burning Code', which has a strong presumption against burning on peat bog and wet heathland, except in special circumstances and as part of a habitat management agreement with Natural England (NE).

The cross compliance regime

5. The Government should produce and consult on proposals to increase the ambition, scope and effectiveness of cross compliance in order to mitigate the impact of agriculture on soil health and incentivise provision of wider ecosystems services such as water quality and flood protection. Revised requirements and incentives for landowners should be centred on restoration and improvement of soil quality and organic matter, and not merely a 'damage limitation' approach. The upcoming 25-year environment plan should indicate how the Government plans to ensure that the incentive structure for farmers will contribute to the sustainable management of all soils by 2030. In drawing up its partner 25-year plan for food and farming, Defra must ensure that measures to improve agricultural production do not lead to compromise on soil health. In particular, in meeting its goal to reduce burdens on farmers, Defra must not undermine the effectiveness of its policy levers to ensure soil protection. (Paragraph 69)

Cross compliance is an EU regime that applies to farmers who claim Basic Payment Scheme payments as well as those in certain agri-environment schemes including the Countryside Stewardship Scheme. As a baseline standard that all farmers must adhere to, cross compliance is focussed on compliance with EU requirements to meet Statutory Management Requirements and maintaining Good Agricultural and Environmental Conditions rather than on making additional environmental on-farm improvements. Cross compliance is underpinned by a prescriptive penalty regime set out in the EU CAP regulations.

The cross compliance Good Agricultural and Environmental Conditions (GAECs) relating to soils are substantially different under the new CAP from 1 January 2015. Under the previous CAP there was a single GAEC describing soils requirements – the Soil Protection Review – under which many farmers were penalised for failing to complete their records properly. In contrast the three new GAECs focus on the outcomes which are found in relation to soils on farm, we are gathering evidence by monitoring their application in the field.

Following the EU referendum, we now have an opportunity to develop a new vision for British agriculture outside of the European Union. It is vital that any future agricultural policy framework ensures British farming remains competitive whilst protecting and enhancing the environment – including by not compromising soil health.

Subsidies for maize for anaerobic digestion

6. Renewable energy subsidies for anaerobic digestion should be restructured to avoid harmful unintended consequences. Revisions should either exclude maize from the subsidy altogether or impose strict conditions on subsidised maize production to avoid practices in high-risk locations which lead to soil damage. The broader cross-compliance regime has not proved sufficient to prevent such damage. Defra and DECC should work together to evaluate the impact of energy policy on soil health across the board. The upcoming 25-year environment plan should include specific plans for inter-departmental working and structures of accountability with the goal that soil protection is not simply the responsibility of Defra, but rather is a factor against which any policy can be measured. (Paragraph 78)

The Government's policy is that the primary purpose of agricultural land should be for growing food. However, growing deployment of anaerobic digestion (AD) on farms has caused a significant increase in the use of crops for AD. In 2014, maize grown for AD made up 19% of the total maize area in England and 0.7% of England's total arable area. The Government also has concerns about the impact of late harvested crops such as maize on soil and water quality.

The Department for Business, Energy and Industrial Strategy (BEIS) (formerly Energy and Climate Change (DECC)) are currently consulting on the introduction of sustainability criteria and feedstock restrictions for new installations coming through under the Feed-in Tariff (FIT). Feedstock restrictions are proposed because without regulatory controls there is a risk that a high proportion of crops may be used for AD generation under the FITs, would go against Government's key aims for AD – namely to deliver the multiple objectives of waste management and low carbon energy.

However, our proposal is not to ban the use of crops completely, but rather to restrict the amount we pay for electricity and heat that is generated using crop-based feedstock. Government responses to the Renewable Heat Incentive (RHI) and FITs consultations will be published later in the year.

Monitoring soil trends

7. We recommend that the Government develop plans for an ongoing national-scale programme to monitor soil health, potentially aligned with and co-funded by EU payments as in Wales to provide the control for soil change within agri-environment schemes and other initiatives. Merely noting an intention to undertake a new survey in the future, as Defra does, is not adequate—a one-off enterprise each decade does not provide the strategic approach we need to maintain due focus on soil health. A new ongoing programme should ensure coverage of land which has previously reported as undergoing degradation and a suitable range of indicators to assess the provision of ecosystems services. (Paragraph 95)

Most soil properties change very slowly over time, so frequent monitoring is not justified and equally there is a substantial cost implication attached to monitoring. The Government agrees with the Committee that it is important to monitor soil trends but we need to ensure that we use available public funds in a cost effective way and are therefore looking toward innovative methods of obtaining the data needed to maintain a strategic picture

of soil health. For example, farmers frequently request measurements of their soil to check its health and as a guide to where fertiliser or lime may need to be applied. The Natural Environment Research Council (NERC) is currently funding research⁶ that is exploring the robustness of using this data to monitor topsoil indicators at a national scale. Defra will let the Committee know once this work is published later in the year.

Conclusion

8. Soil is crucial to society. Neglecting soil health could have dire consequences for food security, climate change, and public health. Some of the most productive agricultural land in England is at risk of becoming unprofitable within a generation through soil erosion and loss of carbon, and the natural environment will be seriously harmed. The importance of soil has not always been reflected in public discourse or Government policy, with soil receiving little attention compared to issues like air, water and biodiversity. (Paragraph 100)

9. Defra's upcoming 25-year environment plan should seek to rectify this long-standing deficit and place soil protection at the heart of environmental policy. Defra must also ensure that its accompanying 25-year plan for food and farming does not sit in tension with its environment plan. We must move away from viewing soil merely as a growth medium and treat it as an ecosystem in its own right. We call for more joined up soil policy between Government departments to ensure no clashes in priorities. As well as taking national action, the Government should remain open to action on a European level to ensure soil protection. (Paragraph 101)

Our environment is a precious natural asset that provides us with numerous benefits such as clean water, clean air, food, timber, flood protection and recreation. Soils play a vital role and we now have the opportunity to consider a long-term vision for the environment we want in Britain following the EU referendum vote. Development of the new approach will need to be informed by significant engagement with a wide range of interests to determine that vision and to work together to deliver it.

We will use the time that this opportunity brings, to engage with key soil experts, some of whom provided evidence to the Committee, and maintain that engagement going forward.

6 <http://www.bgs.ac.uk/research/climateChange/sustainableSoils/caasm.html>