



The All Party Parliamentary Group on

Game and Wildlife Conservation

Minutes

A healthy soil – natural capital asset or public good?

Tuesday 2nd April 2019

12:30pm -13:30pm

Jubilee Room, Westminster Hall

Attending:

Name	Representing	Name	Representing
Sir Nicholas Soames	MP and APPG Chair	Ellen Fay	Sustainable Soils Alliance
Angela Smith	MP	Matthew Orman	Sustainable Soils Alliance
Richard Benyon	MP	Dave Freeman	AIC
Dr David Drew (part)	MP	Julian Little	BAYER
Philip Dunne (part)	MP	Philip Merricks	
Earl of Caithness	House of Lords	Charlie Pye-Smith	
Lord Colgrain	House of Lords	Abi Kay	Farmers Guardian
Baroness Masham of Ilton	House of Lords		
Baroness Redfern	House of Lords	Guest speaker	
Sophie Hutchinson	BASC	Paul Knight	Salmon & Trout Conservation UK
Susan Twining	CLA		
Willa Harris	Countryside Alliance		
James Somerville-Meikle	Countryside Alliance	GWCT	
Graeme Willis	CPRE	Teresa Dent	GWCT
Philippa Arnold	NFU	Alastair Leake	GWCT
Robert Macklin	National Trust	Jeremy Payne	GWCT
Michael Krause	Plantlife	Joel Holt	GWCT
Adam Barnett	RSPB	James Swyer	GWCT
Sarah Scrope	Salmon & Trout Conservation UK	Jo Dimpleby	GWCT
Gareth Morgan	Soil Association	Henrietta Appleton	GWCT

Minutes:

Sir Nicholas began by stating that soil health was a well-chosen subject for discussion given the debate around declines in its natural state and need for restoration.

He then introduced the first speaker, Dr Alastair Leake, who provided the background to the current situation. The Norfolk four course rotation it turned out was based on good science as it allowed soil to regenerate through phases that were restorative. Farming has been able to diverge from this through the application of nitrogen fertiliser which has driven yields and now supports a global population almost double that which could be supported in its absence. The limiting factor for further yield enhancement is now soil health and structure. For the last 70 years little has been done to protect our soils – the 1947 Agriculture Act and the CAP through cross-compliance have both paid lip service to soils but with nothing binding, efforts have been merely lukewarm. The result? After significant rainfall, satellite imagery shows soil being lost through our rivers to the sea – an unsustainable situation.

The threat to our soils appears to be at the forefront of current Government ambitions for future farming policy. In the 25YEP they state that there is a lack of sufficient data; yet there is plenty of evidence to support the need to act quickly. Such as the annual costs of soil degradation in England & Wales at £1.2bn through compaction, loss of organic content and erosion; the contribution of damaged soils to flooding estimated at £233m pa; the Committee on Climate Change has highlighted that 84% of our fertile top soil has been lost, the majority since 1950, and soil erosion continues at a rate of 1-3cm per year; and, in 2015 a consultation highlighted that farmers were losing nitrogen and phosphorus through diffuse pollution.

What is needed is a UK wide soils directive – at the EU level such an initiative was difficult given the varying geology, soils etc; but in the UK it is eminently possible. The actions included in the 25YEP are welcomed particularly updating the 2001 guidance on crop establishment; but developing soil health metrics and investigating the potential for soils to support wider environmental goals won't result in any practical actions.

The Sustainable Soils Alliance has identified the 6 answers we need and importantly the first is to incentivise – such as farmers dedicating 15% of land to soil restoring crops. Regulation should be seen as a last resort.

Dr Leake went on to demonstrate the importance of soil structure and the simple actions that farmers can take to improve it – such as using low ground pressure tyres to reduce compaction. Alternatives to ploughing are being promoted such as direct sowing which has also benefitted spiders thereby aiding pest control. But the picture is never straightforward. Conservation agriculture is also being promoted as a means of reducing CO₂ emissions from soils in comparison with ploughing. But if you also consider NO₂ emissions there is little difference between tillage treatments. However ploughing impacts on the number of earthworms in the soil; this is significant as the earthworm's burrows allow water to permeate more effectively and enhance plant root growth thereby making soils more resilient to climate change.

He highlighted the unsustainable soil management practices that are still widely practised such as single year FBTs on Grade 1 soils with no restoration phases; intensive tillage particularly associated with root crops; continuous exploitative cropping; and the use of heavy machinery in poor conditions. What is needed is a positive commitment to sustainable soil management through the re-introduction of balanced rotations and the use of cover crops and organic additions to improve soil organic matter.

Dr Leake concluded by arguing that the last 70 years of regarding soil as a private asset and the responsibility of the farmer/land owner, has not worked and that outside the CAP the UK has a unique opportunity to embed soil health into agricultural and environmental policy. Improving soil health will benefit both farmer and the public and in order to avoid concerns about public funding supporting farm incomes (through yield and income enhancement), soils should be the focus of a blended funding model through the encouragement of private/public partnerships (such as the food chain working with farmers to enhance soil health).

The second speaker Paul Knight of Salmon & Trout Conservation UK explained the impact that poor soil management has on river health. He outlined the initial work undertaken on phosphorus sampling and how this developed into the broader Riverfly Census work that Salmon & Trout Conservation UK undertakes annually. This has identified 3 stresses in English & Welsh rivers –

phosphorus, fine sediment and chemicals – resulting in damage through killing eggs, choking river plants and blocking up river beds and spawning grounds. Agriculture, principally through poor arable practices and slurry management, is not the only contributor – septic tanks also have a significant impact.

Poor river health affects a number of public benefits – potable supply, water quality, recreation, flood defence and carbon storage. What is needed is a political commitment to protecting river corridors through incentivising landowners and farmers to undertake appropriate management practices with effective regulation provided by an appropriately resourced regulator, the Environment Agency.

Q&A session

Sir Nicholas commenced the Q&A session by asking Dr Alastair Leake (ARL) the best way of encouraging best practice soil management. ARL responded that farmers/land managers are interested in their soils but there is not enough support for practical workshops. He also reiterated the need for a policy to encourage fallow into the rotation as whilst manures and cover crops can mitigate some soil losses, to improve our soil structure policy needs to support balanced rotations.

The Earl of Caithness asked about grassland systems. ARL said that there were issues over compaction and slurry application but that as there is no funding to undertake research into improving grassland soils; consequently there are no tailored agri-environment options and therefore little take up by grassland farmers.

Richard Benyon MP asked whether the catchment management approach was being successful in securing compliance with the Water Framework Directive and conserving vital water ecosystems. Paul Knight (PK) was pessimistic as the approach was under-resourced with every catchment only receiving £5k pa and given the broad range of interests at the catchment level, the debate had become very polarised. He drew attention to the new SmartRivers initiative that the S&TC was about to launch to train local citizens to monitor river health. He also praised the benefits of collective approaches to improving river health such as farmer clusters.

Philip Merrick asked about diffuse pollution and how to tackle it due to its nature. PK said it was possible to be definitive about where silt is coming from and that if enough monitoring points are established on each river the picture would become clearer and the source easier to identify.

Angela Smith MP (and deputy APPG chair) highlighted that the Water APPG was hoping to commence research into catchment level responses to management with a view to developing a market for water services. She also raised the contribution that degraded peatlands contribute to sediment load in rivers and highlighted that there is no replacement funding for EU Life which has been supporting the restoration work. Finally she supported the point PK made in his presentation about the need for reform of abstraction licences and emphasised that the energy generators and manufacturing were also significant abstractors so the problem needs to be seen in the round.

Gareth Morgan from the Soil Association commented that the Environment Bill did not have a chapter on soils, the 25YEP didn't include satisfactory soil metrics and the Agriculture Bill didn't mention soils either. Important to address these omissions.

Sir Nicholas commented on the example given of Alresford Salads as he had written to the Environment Agency about them and was disappointed by their response. PK assured him that the EA had taken more notice in the last 3-4 weeks following the presentation of the S&TC data.

[Sir Nicholas left the meeting at 1.19pm and Teresa Dent, CEO of the GWCT, took the chair]

Graeme Willis CPRE questioned whether there was appropriate data available for Government to use for what is happening across farmland. ARL responded that the scientists argue that soils are a complicated subject and that this is holding back from positive action. Actually there are simple basic solutions and what is needed is action now.

James Somerville-Meikle of the Countryside Alliance asked about getting Ministers to listen and ensuring that the new ELM would deliver practical improvements. ARL responded that a GWCT Test & Trials proposal on the introduction of sustainable rotations had not been accepted as soils were regarded as a private asset by Defra. He argued that the key was not to fund the full cost but to net out the benefits to the farmer so that the public only financed the “incentive” element. PK felt that in some cases it was just not realised the damage being inflicted on our rivers and that data is important. In addition need to show Ministers a win-win situation where landowners were incentivised to protect soils and this produced the range of public benefits highlighted in his presentation.

Matthew Orman of the Sustainable Soils Alliance raised the point about valuing soils. The cost of soil degradation is estimated at £1.4bn per year so there is a number out there.

Julian Little (Bayer) highlighted the problem of planning constraints on the creation of farm reservoirs to reduce the need for abstraction. PK added that the NFU had put forward the idea of financial incentives to build reservoirs back in 2012 in the Drought Group that year. Nothing has happened since and it should clearly be part of the answer.

Dave Freeman of the AIC pointed out that policy and not the farming sector is to blame and that there is a significant amount of goodwill in the farming sector resulting in industry-led initiatives like UK Soil Health. Agriculture is the solution and what is needed is advice for farmers to understand the right approach relative to their business type and model. ARL agreed and used the example of the 2001 guide on managing crop establishment which included 12 case studies to provide suitable guidance. As a result of the advice therein by 2005 57% of farmers were not ploughing and so it shows the value of good guidance and supporting workshops. Need this approach before regulation. PK agreed as getting soil management right would address many of the problems faced by rivers.

Teresa Dent brought the session to a close just after 1.30pm.

18th April 2019