We welcome this report which demonstrates considerable ambition and imagination in its vision for a future policy framework that champions land use’s role in achieving Net Zero.

However, the report does not provide the concrete policy recommendations needed to address one significant piece of the land use/carbon jigsaw – namely carbon sequestration through soil. As such it has missed the opportunity to capitalise on – and give much needed policy direction to - the growing interest among politicians, farmers and businesses in the subject.

Last week’s Agriculture Bill recognised the vital role of soils in delivering a number of public goods including climate change mitigation, whilst Microsoft included soil carbon sequestration among its tools to achieve carbon negative emissions by 2030. In its 2019 report on Achieving Net Zero in Farming, the NFU stated that enhanced soil carbon storage could deliver GHG savings of 5 MtCO2e/year.

This report is a critical focus for action and the government should pay particular attention to the recommendations for management of peatlands; however, where it comes to soil, more ambitious policy steps are needed. We recommend the following:

- The report is right to identify carbon trading schemes as a vital mechanism for incentivising land managers to achieve Net Zero, however this approach should not be limited to the forestry and agro-forestry sector and the Peatland Code as currently outlined. Soil carbon sequestration has an equally important part to play in taking carbon out of the atmosphere*, and there is no reason why, with the correct design, MRV mechanisms, recognition of limitations (saturation, longevity etc), private sector investment should not be harnessed to incentivise this critical tool – to the benefit of farming’s bottom line, the climate and soil health more generally.

- We were pleased to see the reference to: A coherent mix of regulation, financial incentives and enabling policies...required to overcome the range of barriers that are preventing change. Nowhere is the interweaving of these elements into a coherent whole more important – and more needed than in soil policy. Decades of under-investment in both enforcement and education have led to confusion and low awareness about which soil management practices are mandatory, illegal or the baseline for incentives. Adequate investment in both of these areas needs to be in place if incentivisation is to generate the genuine, long-term behaviour change needed.

- Clarity is needed in particular about where and how the 8 Farming Rules for Water and CAP Cross Compliance will sit in any future regime reflecting the ‘polluter pays’ principle. We agree with the proposal that existing rules that have benefited climate change mitigation (e.g. measures to minimise soil erosion and establishing buffer strips along watercourses) should be mandated irrespective of whether farmers are in receipt of public money.
We welcome the reference to removing constraints that discourage tenanted farmers from undertaking long-term investment decisions, but ‘rewards’ are only half the picture. The growing trend for short tenancies – some as little as a few months - puts increased pressure on farmers to introduce temporary land management practises that cause soil degradation and downstream harm (e.g. pollution, run-off, erosion). There are steps that can be taken by land owners – who bear the greatest responsibility and financial reward from an improvement in their most important asset - to address this through the contracts they agree with their tenants. The Crown Estate for example, recently introduced a soil-testing regime as part of all new agreements – an approach that might be embedded nationwide in all tenancy contracts in future.

An increase in Bioenergy production might be needed to meet the Paris Agreements goals, but the report is right to highlight the importance of avoiding negative environmental effects. There are potential unintended consequences for soil, for example. Intensifying the production of bioenergy crops through the use of fertilisers, irrigation and monocultures can erode soil and its capacity to soak up carbon in the long run. This risk (identified for example in maize growth) needs to be better understood, factored into the advice given to all farmers and included in Bioenergy’s underlying carbon balance sheet.

Nothing is more important than education for good soil management, and the report’s references to land managers’ reliance on advisory services are particularly pertinent when it comes to soil. To transition smoothly to practices that benefit soils, most farmers will need access to agronomic knowledge and advice that is not readily available today. The government should facilitate the creation of independent professional standards for agronomists to lower farmer search costs when seeking suitably qualified advice and provide the legal framework to finally guarantee for farmers that advice is given free of any conflict of interest from the sale of inputs.

Matthew Orman, Director, SSA


The Sustainable Soils Alliance (SSA) was launched in 2017 to address the current crisis in our soils. Its aim is to restore soils to health within one generation by galvanising the communities of scientists, innovators, policymakers and land managers already active in this area, harnessing their activities and providing them with a sense of common purpose. We ultimately want to see soil get the same focus, investment and attention that other natural capital ‘elements’, water and air, have received in recent years.

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