

Scientific literature underpinning the establishment of a soil carbon market-place

Title	1st author	Year	DOI / Link	Land management and SOC	Soil carbon and land use in the UK	Mechanisms regulating carbon in soils	Measuring, monitoring and verifying soil carbon	Relevant to policy, society and economics	Soil carbon and climate
Critical review of the impacts of grazing intensity on soil organic carbon storage and other soil quality indicators in extensively managed grasslands	Abdalla, M.	2018	10.1016/j.agee.2017.10.023	x					
The economics of soil C sequestration and agricultural emissions abatement	Alexander, P.	2015	10.5194/soil-1-331-2015					x	x
Towards a global-scale soil climate mitigation strategy	Amelung, W.	2020	10.1038/s41467-020-18887-7					x	x
Soil Organic Matter Research and Climate Change: Merely Re-storing Carbon Versus Restoring Soil Functions	Baveye, P.C.	2020	10.3389/fenvs.2020.579904					x	x
UK land-use change and its impact on SOC: 1925–2007	Bell, M.J.	2011	10.1029/2010GB003881						
No-till technology has limited potential to store carbon: How can we enhance such potential?	Blanco-Canqui, H.	2021	10.1016/j.agee.2021.107352	x					
The effect of crop residues, cover crops, manures and nitrogen fertilization on soil organic carbon changes in agroecosystems: a synthesis of reviews	Bolinder, M.A.	2020	10.1007/s11027-020-09916-3	x					
A soil carbon and land use database for the United Kingdom	Bradley R.I.	2006	https://doi.org/10.1079/SUM2005351		x				
To till or not to till in a temperate ecosystem? Implications for climate change mitigation	Cooper H.	2021	10.1088/1748-9326/abe74e						x
The importance of nitrogen for net carbon sequestration when considering natural climate solutions	Davies C.	2021	https://doi.org/10.1111/gcb.15381						x
Increasing soil carbon storage: mechanisms, effects of agricultural practices and proxies. A review	Dignac M-F.	2017	10.1007/s13593-017-0421-2			x			
Status of the World's Soil Resources	FAO	2015	www.fao.org/3/i5199e/I5199E.pdf					x	
Soil organic carbon and nitrogen: reviewing the challenges for climate change mitigation and adaptation in agri-food systems. ITPS newsletter 2	FAO	2021	http://www.fao.org/3/cb3965en/cb3965en.pdf						x
A protocol for measurement, monitoring, reporting and verification of soil organic carbon in agricultural landscapes - GSOC MRV Protocol	FAO	2020	http://www.fao.org/3/cb0509en/cb0509en.pdf				x		
Recarbonization of global soils	FAO	2019	http://www.fao.org/3/ca6522en/CA6522EN.pdf					x	
Challenges and Opportunities for Carbon Sequestration in Grassland Systems	FAO	2010	http://www.fao.org/3/i1399e/i1399e.pdf	x					
Revised World Soil Charter	FAO	2015	http://www.fao.org/3/i4965e/I4965E.pdf					x	
Voluntary Guidelines for Sustainable Soil Management	FAO	2017	http://www.fao.org/3/i6874en/I6874EN.pdf	x					
Soil Organic Carbon - the hidden potential	FAO	2017	http://www.fao.org/3/i6937en/I6937EN.pdf					x	
Soil carbon sequestration in grazing systems: managing expectations	Godde, C.M.	2020	10.1007%2Fs10584-020-02673-x						x
Can N2O emissions offset the benefits from soil organic carbon storage?	Guenet, B.	2021	https://doi.org/10.1111/gcb.15342						x
What are the effects of agricultural management on soil organic carbon in boreo-temperate systems?	Haddaway, N.R.	2015	DOI 10.1186/s13750-015-0049-0	x					
Soil carbon: A measure of ecosystem response in a changing world	Janzen, H.H.	2005	10.4141/S04-081					x	

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Capturing a soil carbon economy	Keenor, S.G.	2021	10.1098/rsos.202305					x	
Digging deeper: A holistic perspective of factors affecting soil organic carbon sequestration in agroecosystems	Lal, R.	2018	10.1111/gcb.14054			x			
Managing soils for resolving the conflict between agriculture and nature: The hard talk	Lal, R.	2020	10.1111/ejss.12857					x	
Changes in soil organic carbon under perennial crops	Ledo A.	2020	10.1111/gcb.15120	x					
Soil health and carbon management	Lal, R.	2016	10.1002/fes3.96					x	
Possibilities for monitoring CO2 sequestration and decomposition of soil organic matter on dairy farms	Lesschen JP	2020	10.18174/526420				x		
The potential for Scottish cultivated topsoils to lose or gain soil organic carbon	Lilly, A.	2013	10.1111/sum.12009					x	
Biochar application to soil for climate change mitigation by soil organic carbon sequestration	Lorenz, K.	2014a	10.1002/jpln.201400058	x					
Feasibility of the 4 per 1000 aspirational target for soil carbon: case study for France	Martin, M.	2020	DOI: 10.1111/gcb.15547					x	
Management of cover crops in temperate climates influences soil organic carbon stocks: a meta-analysis	McClelland, S.C.	2019	10.1002/eap.2278	x					
Soil carbon 4 per mille	Minasny B.	2017	https://doi.org/10.1016/j.geoderma.2017.01.002					x	
Current and emerging methodologies for estimating carbon sequestration in agricultural soils: A review	Nayak, A.K.	2019	10.1016/j.scitotenv.2019.02.125				x		
UK land use and soil carbon sequestration	Ostle, N.J.	2009	10.1016/j.landusepol.2009.08.006		x				
Quantifying carbon for agricultural soil management: from the current status toward a global soil information system	Paustian, K.	2019	10.1080/17583004.2019.1633231				x		
Carbon sequestration in agricultural soils via cultivation of cover crops – A meta-analysis	Poeplau, C	2015	https://doi.org/10.1016/j.agee.2014.10.024	x					
Sensitivity of soil organic carbon stocks and fractions to different land-use changes across Europe	Poeplau, C	2013	10.1016/j.geoderma.2012.08.003		x				
Soil carbon sequestration to mitigate climate change: A critical re-examination to identify the true and the false	Powlson, D.S.	2011	10.1111/j.1365-2389.2010.01342.x						x
The potential to increase soil carbon stocks through reduced tillage or organic material additions in England and Wales: A case study	Powlson, D.S.	2012	https://doi.org/10.1016/j.agee.2011.10.004	x					
Limited potential of no-till agriculture for climate change mitigation	Powlson, D.S.	2014	10.1038/NCLIMATE2292						x
Soil Carbon and Land Use in Scotland	Rees, R.M.	2018	soil-carbon-and-land-use-in-scotland.pdf (climatexchange.org.uk)					x	
Greenhouse gas removal	Royal Society	2018	https://royalsociety.org/-/media/policy/projects/greenhouse-gas-removal/royal-society-						x
Soil carbon sequestration and biochar as negative emission technologies	Smith, P.	2016b	10.1111/gcb.13178	x					
How to measure, report and verify soil carbon change to realize the potential of soil carbon sequestration for atmospheric greenhouse gas removal	Smith, P.	2019	10.1111/gcb.14815				x		
Consequences of feasible future agricultural land-use change on soil organic carbon stocks and greenhouse gas emissions in Great Britain	Smith, P.	2010	10.1111/j.1475-2743.2010.00283.x		x				
What are the effects of agricultural management on soil organic carbon (SOC) stocks?	Soderstrom, B.	2014	10.1186/2047-2382-3-2	x					
The knowns, known unknowns and unknowns of sequestration of soil organic carbon.	Stockman, U.	2013	https://doi.org/10.1016/j.agee.2012.10.001			x			

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Characterising the biophysical, economic and social impacts of soil carbon sequestration as a greenhouse gas removal technology	Sykes A.J.	2020	10.1111/gcb.14844	x				x	
A global agenda for collective action on soil carbon	Vermeulen, S.	2019	10.1038/s41893-018-0212-z					x	
Soil organic carbon storage as a key function of soils - A review of drivers and indicators at various scales	Wiesmeier, M.	2019	10.1016/j.geoderma.2018.07.026			x			
Soil carbon debt of 12,000 years of human land use	Sanderman, J.	2017	10.1073/pnas.1706103114					x	
Patterns and trends of topsoil carbon in the UK: Complex interactions of land use change, climate and pollution	Thomas, A.	2020	10.1016/j.scitotenv.2020.138330		x				
Comparison of soil carbon stocks in Scottish soils between 1978 and 2009	Chapman, S.	2013	10.1111/ejss.12041		x				
Effect of farm management on topsoil organic carbon and aggregate stability in water: A case study from Southwest England, UK	Collier, S.M.	2021	10.1111/sum.12658	x					
Sustainable soil management and climate change mitigation	Hou, D.Y.	2021	10.1111/sum.12718						x