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Contested framings of greenhouse gas removal and its feasibility: Social and political dimensions

Laurie Waller[1,2] | **Tim Rayner**[1,3] | **Jason Chilvers**[1,2] | **Clair Amanda Gough**[4] | **Irene Lorenzoni**[1,2,3] | **Andrew Jordan**[1,3] | **Naomi Vaughan**[1,3]

[1]School of Environmental Sciences, University of East Anglia, Norwich, UK

[2]Science, Society & Sustainability (3S) Research Group, University of East Anglia, Norwich, UK

[3]Tyndall Centre for Climate Change Research, University of East Anglia, Norwich, UK

[4]Tyndall Centre for Climate Change Research, School of Mechanical, Aerospace and Civil Engineering, University of Manchester, Manchester, UK

Correspondence
Jason Chilvers, Science, Society & Sustainability (3S) Research Group, School of Environmental Sciences,

Abstract

Prospective approaches for large-scale greenhouse gas removal (GGR) are now central to the post-2020 international commitment to pursue efforts to limit the global temperature increase to 1.5°C. However, the feasibility of large-scale GGR has been repeatedly questioned. Most systematic analyses focus only on the physical, technical, and economic challenges of deploying it at scale. However, social and political dimensions will be just as important, if not more so, to how possible futures play out. We conduct one of the first reviews of the international peer-reviewed literature pertaining to the social and political dimensions of large-scale GGR, with a specific focus on two predominant approaches: Biomass energy with carbon capture and storage (BECCS) and afforestation/reforestation (AR). Our analysis of 78 studies proposes two important insights. First, it shows how six key social and political dimensions of GGR feasibility–namely economics and incentives; innovation; societal