

Science and the politics of sustainability: an analysis of four
research-council funded bioenergy projects.

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Abstract

This thesis provides a detailed exploration of the way that four large research-council-funded bioenergy projects have engaged with the politics of bioenergy sustainability. Given the contested nature of sustainable development and the nature of the science in question, this thesis takes a discourse analysis approach to critically examine the functioning of these projects in the context of the wider politics surrounding the issue of bioenergy sustainability. Drawing on in depth interviews and a wide-ranging analysis of the literature, this thesis presents a number of findings. While used in strategically ambiguous ways, under the dominant ecologically modernising discourse governing bioenergy, sustainability is primarily constructed as synonymous with least-cost decarbonisation. Policy support for bioenergy is built around a technologically optimistic storyline, underpinned by a number of assumptions, including a linear view of scientific policy making. This dominant discourse around bioenergy has been challenged in two main ways. The first of these has rejected the over emphasis on carbon balances and economics as the primary metrics against which bioenergy sustainability should be measured. Decarbonising our energy supply has become increasingly dislocated from its underlying (disputed) ethical and moral rationales. As such it has seemingly become an end in its own right. The second challenge is more subtle and involves a rejection of the framing of bioenergy sustainability as a scientific and technical problem.

Although reproducing a more administrative type discourse, the science initiatives explored in this thesis appear to reinforce much of the dominant discourse. As well as reflecting certain practices associated with the governments focus on scientific policy making, a lack of reflexivity to the strategic aims of energy policy within science also reflects a strong positivism and shared reliance on the perceived linearity of scientific policy making. It is argued that if science is to be liberated to fully respond to the challenges of sustainability, scientists need to be more reflexive as to the (political) role of science in modern environmental controversies, questioning both what their impacts might be and whose interests they are serving.

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