

PhD research project

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Sustainability by Design? Controversies and Agencies in Bioenergy and Biofuel Certification Processes

Biomass and biofuels are variously portrayed as rogue energy sources that destroy ecosystems and as causes of food poverty; or as sustainable sources of energy that can help tackle climate change and energy poverty and achieve energy security. In recent years, while this contested energy resource has been supported by the EU's renewable energy targets, UK government subsidies and private investments, it has also become something of a *bête-noir* amongst many environmental activists (who have documented numerous detrimental effects of bioenergy on ecosystems and livelihoods). This friction provides a rich topic for a study into the controversies associated with the development of bioenergy and with the sciences that underpin it.

This PhD research project will explore how climate science, economics, ecology and conservation science have responded to and are employed in (a) the production and validation of bioenergy; and (b) the continued opposition to and resistance against bioenergy and biofuels by activist groups. In particular, emphasis will be placed on the sciences developed for, and employed in, the design of the certification processes that validate and label some types of bioenergy as sustainable; and on the sciences (and other 'vernacular' forms of knowledge) deployed by some environmentalists to discredit these attempts to legitimize bioenergy production. The bioenergy sector has developed a series of sustainability criteria through multi-stakeholder 'roundtables', which are designed to create consensus on the qualitative and quantitative effects of bioenergy production and best practices for their production. In the past, these forums have typically adopted and built on existing measurement systems and criteria from other sectors such as conservation and agriculture, and applied them to bioenergy. The PhD project has three aims:

1. To map the practice of these roundtables, documenting which actors were invited and how their interests and knowledges were translated, while uncovering the methodologies and approaches used by different actors to codify and quantify the effects of bioenergy production on ecosystems and livelihoods.
2. To appreciate the engagement of actors who were excluded from the official process of designing 'sustainability' standards and certifications. And to envision possibilities for opening up official processes, in order to register voices that have been marginalized in the past due to their relative powerlessness or their oppositional stance.
3. To study how a bioenergy standard or certification process has been 'implemented' in practice on fields, forests and factories. In this part, emphasis will be placed on the role played by different humans and nonhumans in the implementation process.

Theoretically, the research will be undergirded by practice theory and other approaches from Science, Technology and Society (STS) studies. Methods for data collection will be largely (multi-sited) ethnographic. The research will be explicitly designed to have a transnational focus, with fieldwork sites expected to be located in the UK, Belgium (Brussels), Switzerland (Geneva) and India.

Requirements

We welcome applications from candidates with a Masters degree and an excellent academic record in STS, Development Studies, Innovation Studies, Sustainability Science, Conservation Studies, Social Anthropology, Policy Analysis or Human Geography. Prior experience with ethnographic methods or the application of social theory to study the politics of sustainable development will be considered as an advantage.