

Stakeholder Perceptions of Short-rotation Forestry

Short-rotation forestry (SRF) has the potential to deliver considerable quantities of biomass for use in the renewable energy sector. However it is currently an unfamiliar land-use in Britain. Several tree species are suitable for SRF including native ash, aspen and birch, along with fast-growing 'exotic' species such as eucalyptus. British growth trials are ongoing and this review was conducted in order to increase understanding of the social viability of SRF in the British landscape by assessing stakeholder perceptions.



Background

Woody biomass, from forest management and other sources, is one of the most efficient sources of heat energy and already forms a substantial proportion of the UK's renewable sector. By 2020, the UK aims to be generating 15% of its energy using renewable sources, and biomass is expected to play a key role as part of the 'energy mix'. Short-rotation forestry (SRF) has the potential to deliver the volumes of biomass required to contribute significantly to these energy goals, and to the security of energy supply. However, there is little tradition or experience of utilising forestry for energy production as a land-use in Britain and some of the most appropriate tree species, such as eucalyptus, are not native and are unfamiliar. Stakeholder awareness of woody biomass as an energy source is limited and perceptions are widely expected to be negative. The Forestry Commission has recognised the need to understand stakeholder perceptions and address potential barriers to adoption of SRF.

Objectives

This research aimed to:

- understand how stakeholders such as the public, non-governmental organisations and businesses perceive SRF and the appropriateness of different species, particularly eucalyptus.

Methods

- We conducted a study of literature identified via a number of bibliographic databases, focusing on material published since 1980.

Findings

In-depth searches identified no literature meeting expected research quality standards that directly addressed public or other stakeholder perceptions of short-rotation forestry or eucalyptus in Britain. However, evidence relating to perceptions of biomass energy, eucalyptus, and silvicultural attributes more broadly enabled conclusions to be drawn about likely stakeholder perceptions of SRF in Britain.

The literature reports low levels of awareness of biomass as a form of renewable energy - especially relative to solar and wind power. This is compounded by the need to view woody biomass within complex sustainable forest management and carbon cycle contexts in order to understand it as renewable. Stakeholders are, therefore, unlikely to easily recognise and understand the connections between SRF plantations and renewable energy.

The silvicultural forms and management practices likely to produce the greatest economic and biomass returns from SRF are liable to be perceived negatively by stakeholders who view and use plantation areas. It can be expected that opposition to the establishment of SRF plantations will be strongest amongst stakeholders local to proposed sites. Eucalyptus has been implicated in a number of controversial and socio-economically damaging forestry initiatives internationally. The species has become a strong symbol which could be used as a rhetorical device by stakeholders opposed to SRF.

SRF is most likely to be accepted in areas (landscapes) where communities are familiar with economic forestry (e.g. timber production) or energy production (such as coal mining areas or near established power facilities). This is because such communities are most likely to attach meanings to their surrounding landscapes which are based on a background understanding of productive or working landscapes. Communities may accept SRF plantations if they can be made a meaningful and valued part of the landscape.

Recommendations

- Along with meeting ecological and economic criteria, SRF establishment should be targeted where it is likely to be socially sustainable and generate most benefit for local communities.
- Those seeking to establish SRF should engage local communities and other stakeholders as early as possible in the process. Innovative engagement methods should be employed to create dialogue and address the complexities of biomass as a renewable energy source.
- Where SRF can bring employment to the local community, this should be emphasised and prioritised. Significant innovation and effort should be made to communicate the value of SRF as an element of sustainable forest management.
- Prior to the establishment of SRF, foresters and land-managers need to be aware of, and consider what social and economic uses are already being made of the local landscape, and ensure that any SRF establishment either maintains or contributes positively to these.
- To increase acceptability, SRF should be established as a mix of species in 'patches', at a small or medium scale, and managed with as few signs of 'industrial' practices as feasible.

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Reports and Publications

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Report available at: <http://www.forestry.gov.uk/fr/INFD-7THBDU>