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Social Issues of Woody Biomass Utilization

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As woody biomass utilization is developed, it is important to examine social issues in addition to technical and economic ones. This paper reviews existing literature addressing the social issues of woody biomass utilization, makes recommendations based on this information, and suggests areas of study that merit further research.

Approach

We synthesized literature about the social issues related to all phases of woody biomass utilization. Woody products are categorized by their value, with items such as saw logs and house logs considered high value and items such as hog fuel chips and residues being of minimal value. Minimal value products, useful especially for creating electricity and heat, have the most potential for growth. Given this, we have focused on the social issues surrounding the utilization of minimal value forest products. Overall, we found that scholarly research in this area is thin and relied largely on case studies of European biomass projects in addition to a few US studies.

Findings

The literature suggests the following recommendations for project developers:

• Ensure that benefits to local communities such as job creation, sustainable economic development and forest restoration outweigh the possible negative impacts such as increased localized pollution and reduced labor supply to other industries.

• Engage local communities in a transparent decision-making process to build trust and positive public perception to reduce opposition to policy implementation.

• Develop projects on a scale that best suits individual regions. Some areas benefit from a greater number of small-scale projects, which are more likely to directly benefit communities, while others are better suited to larger facilities that may be more efficient. Environmental groups have expressed concerns that if facilities are too large, demand for biomass may begin to control forest management.

• Determine the likelihood of biomass utilization to cannibalize existing local industries and ameliorating potential actual or perceived negative economic effects.

• Find appropriate sites for facilities while mitigating NIMBY (not-in-my-backyard) challenges, addressing environmental justice concerns and ensuring facilities are located in areas where hazardous fuels reduction is most needed.

Variations by Geography

While these are the primary concerns generally speaking, the literature shows that they vary greatly by region. The degree to which any of these issues are relevant to a particular region depends on differences in forestland tenure, infrastructure, and the biogeography of forestlands. For example, literature suggests that large scale energy production may be the best fit for the Southern United States, positive framing and an awareness of possible supply chain displacements are of critical importance for Northern states, and the Western United States has a his-

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tory of conflict over forest management that means public participation and project scale will be key factors. However, there are many counterexamples to this regional framework, so it is critical that projects be evaluated on a highly localized basis.

Further Research

Knowledge about project scale and competitive displacement is weak and focused almost entirely on the experiences of large-scale electric plants. We recommend further research to understand the equity dimensions of woody biomass opportunities, how ownership structure impacts the potential for maximizing local benefits and the conditions under which project scale, displacement and other issues become challenged for woody biomass utilization.

For more information:

The complete study can be found in the EWP Working Paper entitled, *Social Issues of Woody Biomass Utilization: A Review of Literature*, which is available on the Web at http://ewp.uoregon.edu.

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