

# ASSESSING SUSTAINABILITY OF WOOD PELLET-BASED BIOENERGY DEVELOPMENT IN THE US SOUTH

A McIntire-Stennis supported project



UNIVERSITY OF  
**GEORGIA**

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& Natural Resources

The exports of industrial wood pellets from the southern United States (US) mostly to the European Union are expected to reach 7 million tons by 2020. Additionally, the use of wood pellets is increasing in the United States, as an increasing number of households are utilizing wood pellets for domestic heating. It is critical to ascertain the environmental, economic, and social impacts of wood pellets production for ensuring the overall sustainability of their supply chains.

In this project, we are undertaking life cycle assessment, benefit-cost analysis, and social survey for evaluating the carbon intensity, unit production cost, and social acceptability of wood pellet-based bioenergy development in the US South. We are also developing an optimization model for evaluating direct and indirect land use changes related to the growing demand for wood pellets. Additionally, we are evaluating the sustainability of other bioenergy feedstocks which can be potentially used for manufacturing pellets in the US South.



source: <http://goodforcamp.com>

## About McIntire-Stennis

The McIntire-Stennis program, a unique federal-state partnership, cultivates and delivers forestry and natural resource innovations for a better future. By advancing research and education that increases the understanding of emerging challenges and fosters the development of relevant solutions, the McIntire-Stennis program has ensured healthy resilient forests and communities and an exceptional natural resources workforce since 1962.



## COLLABORATION



Working collaborations with the forest industry and other bioenergy stakeholder groups including federal and state agencies, university faculties, non-profits, forest landowners, and farmers.

### 3 states / 2 countries

Three states (Georgia, North Carolina, and Illinois) and two countries (Canada and Denmark).

## IMPACT

Wood pellet industry in the United States is using ongoing research for demonstrating carbon benefits related to wood pellet based electricity generation.



Additional 1 million acres of land will move into forestry.



Export of about \$1 billion worth of wood pellets.



Meeting national goals of energy security, prosper rural communities, and mitigating carbon emissions.