# ECONOMICS, POLICY AND SUSTAINABILITY OF FOREST BIOENERGY



A McIntire-Stennis supported project

Bioenergy offers an alternative use of forest biomass to bolster bioeconomic development and job and rural economic growth while protecting forestland from other uses and offsetting greenhouse gas emissions for burning fossil fuels. This program enabled us to identify and evaluate opportunities and challenges associated with forest bioenergy and bioeconomic development in the southern United States. We estimated the sources and quantities of forest biomass for bioenergy production, production costs, and economic and environmental impacts. We developed models for optimizing bioenergy supply chains and criteria and indicators for assessing and monitoring sustainability of biomass and bioenergy production and consumption. We also reviewed and analyzed existing bioenergy policies, identified needs for landowners to participate in bioenergy feedstock production, and recommended policy and mechanisms for enhancing the cost-competitiveness and sustainability of forestbased bioenergy and bioproducts. Our results have been disseminated via different venues to various stakeholders including industry, landowners, researchers, and policy-makers.

# COLLABORATION

This program has leveraged several other projects. They altogether have led to collaborations among researchers in six U.S. universities and one international organization.



Seven

institutions collaborated



# **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.



## **IMPACT**

This program has advanced knowledge on the economics, policy and sustainability of forest bioenergy, and translated and disseminated the research findings to various stakeholders.



# Knowledge

generated to guide the development and deployment of a bioenergy and bioproducts industry.



### \$6.5 million

leveraged from other sources for four additional projects.



4 + 1 + 1

domestic institutions collaborated, including four 1862 institutions, one 1890 institution and one nonland-grant university.