



MONETARY VALUATION OF ECOSYSTEM SERVICES AND ANALYSIS OF FUEL TREATMENT IMPLEMENTATION ON NONINDUSTRIAL PRIVATE FOREST LANDS

A McIntire-Stennis Supported Project

Ecosystem services such as biodiversity, wildlife habitat, carbon sequestration, and water retention play an important role in human well-being and make contributions to local, regional, and national economies. However, due to the long-term nature of forest investments and associated opportunity costs and risks, many nonindustrial private forest (NIPF) landowners are reluctant to actively manage their forests for ecosystem services. This can lead to hazardous wildfires which threaten not only the timber production but also the provision of beneficial ecosystem services. Appropriate implementation of fuel reduction treatments can decrease wildfire occurrence, manage wildfire size and spread, promote healthy ecosystems, enhance soil fertility, and maintain wildlife habitat.

Given that NIPF landowners control the majority of forest land in the southern United States, a coordinated effort involving implementation of fuel reduction treatments is needed to reduce the likelihood of wildfire. This project quantified the cost of increasing production of ecosystem services on private lands and determined NIPF landowner willingness to implement treatments to lower hazardous fuel loads and decrease wildfire occurrence.



COLLABORATION

In addition to Mississippi State, this project includes researchers from Duke University, North Carolina State University, Ohio State University, University of Georgia, University of Idaho, and the University of Tennessee.

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.



IMPACTS



The forest sector in the southern U.S. **generates \$133 billion in total economic impacts** and employs 470,000 people.



Human-caused wildfires account for **84% of all wildfire ignitions and 44% of total burnt area in the U.S.**



A total of **16 peer-reviewed articles** have been published to date.