

# Alternative Bio-based Paths to Prosperity for Small and Medium Agricultural Producers and Forest Landowners in the U.S. Gulf South: A Pilot Study in Louisiana and Mississippi

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# Overview of Emerging Biomass-to-Energy Markets

- ◇ Projections show U.S. energy consumption is increasing
- ◇ Concerns about fossil fuel supplies and climate change
- ◇ Interest in renewable energy sources among energy producers, developers, legislators, investors, and policy makers

# Overview of Emerging Biomass-to-Energy Markets

- ◆ Biomass comes from agricultural crop residues, forestry residues, and animal wastes
- ◆ Currently in the U.S., biomass provides about 7% of the total energy consumption (7.3 quads BTU)
- ◆ Bio-based products and facilities offer several market opportunities for farmers and forest landowners

## Study Objectives

1. To Identify key characteristics at enterprise level and develop an understanding of the role that current products play in the supply chains from producers to consumers within the focal regions.
2. To determine landowners, ag producers, and poultry producers' knowledge of biomass concepts and issues.
3. To discern the willingness to participate in bio-based business activities.

## Methods

The method of data collection were mail surveys / questionnaires

Survey procedures, follow up efforts and data analyses were conducted in accordance with Tailored Design Method (Dillman 2000)

**Forest Landowners-3,500 randomly sampled, Small & Medium Enterprise (SME) non-industrial private forest landowners in SW Louisiana**



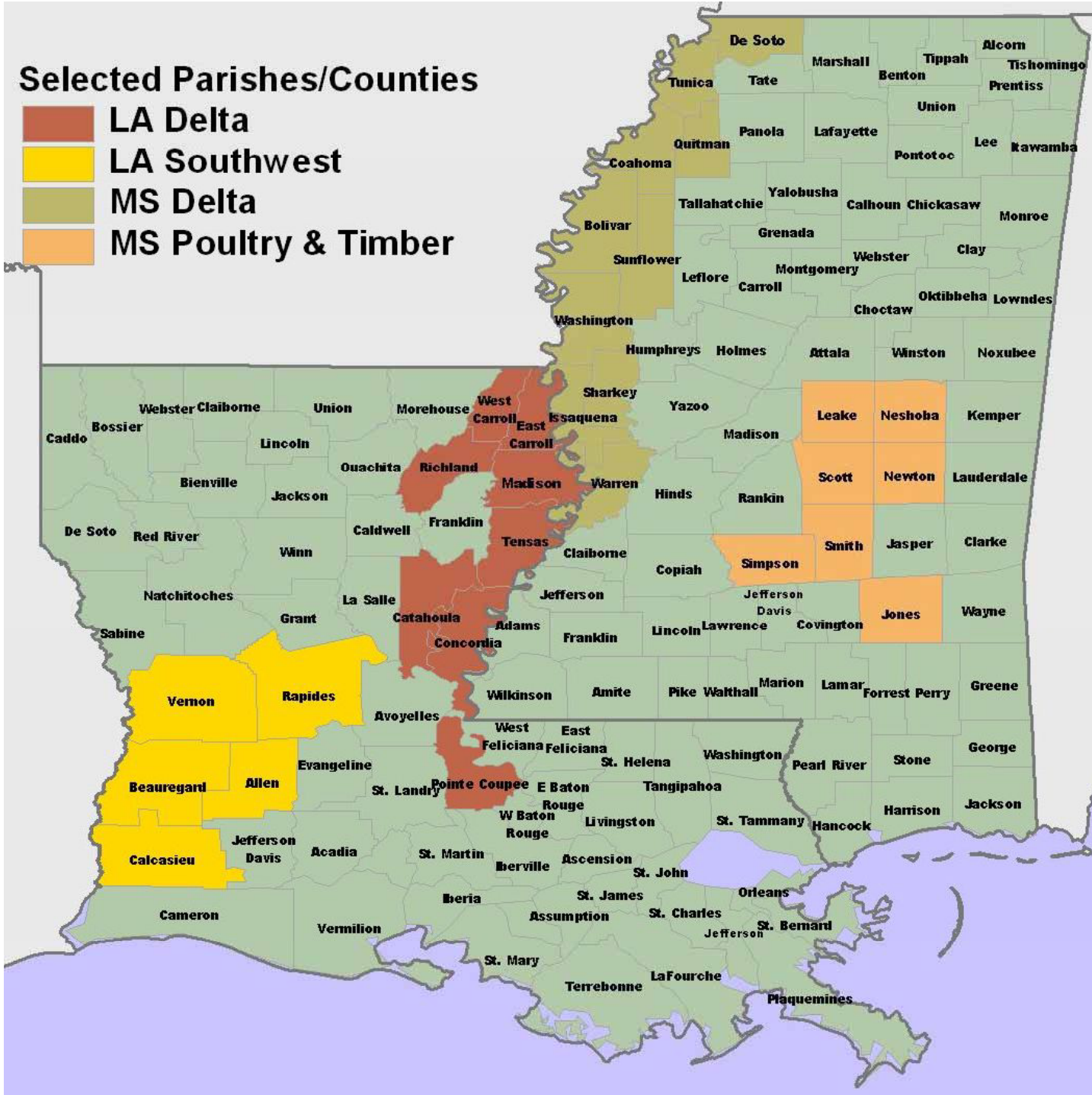
**Agricultural Producers-2,964 randomly sampled, SME agricultural producers in the Delta Region of Louisiana and Mississippi**



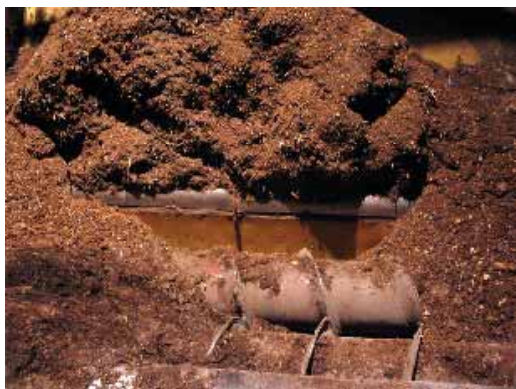


# Selected Parishes/Counties

- LA Delta
- LA Southwest
- MS Delta
- MS Poultry & Timber



# Poultry Producers-846 randomly sampled, poultry producers in U.S.





# Policymaker, Thought Leader & Stakeholder Perceptions and Attitudes on Biomass to Bioenergy

## Potential Economic Impact of Hypothetical Biomass Facilities in Mississippi and Louisiana





## Hypothetical Biomass Facilities in Mississippi and Louisiana

1. Electric power plant in Southwest Louisiana using woody biomass as a feedstock.
2. Cellulosic ethanol plant located in the Delta region of either Mississippi or Louisiana.
3. Poultry litter to co-fire an electric power plant in South Mississippi .
4. Wood pellet plant in Louisiana or Mississippi.

## Conclusion

- The results vary across region, but generally indicate that biomass → energy plants would have a substantial economic and employment impacts, particularly when considered in the context of the rural communities where they would likely be built.
- Need for increased educational services about bio-based technologies and potential profits in order to help bridge the gap between suppliers and producers.
- Understanding landowner and producer willingness to supply biomass feedstock can help frame the economic landscape for policy makers and potential feedstock buyers.

# Outcomes

- High degree of interest generated in this arena.
- 9 Workshops in Louisiana/Mississippi-bring together landowners, ag producers, energy providers, policymakers. (Goal is 1,000 attendees)
- Attendee evaluations-Indication of workshop value
- Providing key information to economic development planners at state and local levels.
- Web-based content on Louisiana and Mississippi university web-sites – increase information availability.
- Newspaper articles/Press releases.
- Thesis, peer-reviewed articles, presentations at national/international conferences
- Post-study follow-up evaluation of respondent actions/status.

# QUESTIONS? COMMENTS?



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