

# Biofuels and Southern Forests: What's at Stake



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## The treasure of Southern forests

Southern forests contain some of the most biologically rich ecosystems in North America. From the Gulf coast, the Ozark Mountains and Southern Appalachians to the native pine woods and swamps of the East Coast, Southern forests house an abundance of plant and animal diversity and pristine watersheds. Many of the region's plant and aquatic species can be found nowhere else in the world.

## Southern forests contain:

- The highest concentration of tree species diversity in North America;
- The highest concentration of aquatic species diversity in the continental United States, including the richest temperate freshwater ecosystem in the world; and
- The highest concentration of wetlands in the U.S., 75% of which are forested.
- The most bio-diverse temperate rainforests in the world.

**“Nowhere in America is there a greater variety of native plant communities, native plant species, or rare and endemic plants...” US Forest Service 2002**



## Southern Forests—Existing Threats

- There are more genetically engineered (GE) tree test plots in the South than anywhere else in the world.
- The Southern US is currently the largest paper producing region in the world.
- Large producers of paper and wood products hold broad economic, social and political influence over the management of the South's forests (as well as the world's).
- Millions of acres of Native Forests are clearcut every year and converted to monoculture pine plantations.
- These practices not only destroy the region's rich biological heritage but also degrade the socioeconomic well-being of rural communities.
- 90% of all of forests in the South are privately owned and lack any legal protections.

- The Southern US contains 43 million acres of monoculture pine plantations, many of which were converted from native forest ecosystems.
- Pine plantations are projected to be the main source for cellulosic ethanol in the Southern US—which will lead to an increase in the rate of conversion of native forests to pine plantations.
  - There is 90-95% less biodiversity in a pine plantation than in a natural forests ecosystem.

## Pine Plantations for Ethanol?



# Biofuels and Southern Forests: Local and Global Threats



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## So, What's the Problem?

**Biofuel** is any fuel that derives from biomass — recently living organisms or their metabolic byproducts. Thus it could be oils from plants, manure from cows, wood from trees and so on.

**Cellulosic Ethanol:** While conventional ethanol is derived from soft starches (corn for example), cellulosic ethanol is derived from a wide variety of sources of cellulose (cell wall) plant fiber. These range from stalks and grain straw to switchgrass and quick-growing trees (poplar and willow), including “wood waste”—but what about Southern forests?



## Long term vision

Dogwood Alliance's long term goals are to protect and restore the South's endangered forests, end unsustainable forestry practices, and increase the industry's use of post-consumer recycled and other environmentally preferable sources of fiber in the production of paper.

We promote forestry practices that meet high standards of environmental responsibility, such as those exemplified in the Forest Stewardship Council (FSC) certification standards including end to large-scale clearcutting, end of conversion of natural forests to plantations, no logging of endangered forests & end to use of toxic chemicals in management of forests.

## Global Deforestation = A Leading Cause of Global Climate Change

## Southern Forest Preservation = A Leading Solution to Mitigating Climate Change

The South is the largest paper producing region in the world—if the Southern US becomes a major cellulosic ethanol producer **the result will be a shift of forestry for paper to the developing world, putting greater pressure on forests in Central and South America, Indonesia, Africa, SE Asia.**

This would increase deforestation globally—**deforestation is the second leading cause of global warming.**

## Local and Regional Threats

**Range Fuels—**“Georgia, an ethanol ‘Saudi Arabia’” Georgia and Range Fuels plan to be at the forefront of the US's domestic ethanol production.—this is the first commercial cellulosic ethanol plant in the United States under construction.

**Increasing threats to Southern forests** Cellulosic Ethanol will increase the demand for the conversion of native forests to pine plantations.

### No Regulation

**No regulations** have been put in place that determine how the biomass will be harvested for biofuel opening the gateway to more clearcutting in areas determined “industrially unfit”, areas that are vital for the ecosystems of the community.

There are **no regulations** set in place to determine what is “wood waste” .