



# Forest Certification and the Sustainability Issue Concerning Wood Products

Georgia Forestry Commission

1-800-GA TREES

[GaTrees.org](http://GaTrees.org)





# Some Definitions

Forest certification: the practice of **evaluating** forest land management against **agreed upon standards** of sustainability.

Chain of Custody: the certification system in which **wood is tracked** from the certified forest to the finished product. This certification process involves mills, manufacturers and retailers who purchase, use or sell certified wood. The finished product may be accompanied with a logo identifying the certification system or a certification claim on product invoices and other documentation.

Sustainability: ??

# Why Forest Certification?

## A primary issue is sustainability

- **Sustainable** - a method of harvesting or using a resource so that the resource is not depleted or permanently damaged.”  
~Merriam-Webster online dictionary
  - Forest certification began in 1980’s and has gotten stronger in recent decades due to questions about sustainability and fears of deforestation, most of which were initiated by environmental non-profit organizations.



Photos Courtesy of Dr. Jeff Stringer, University of Kentucky



# Certification Has Been Around



Underwriters Laboratory



USDA Prime Grade of Beef



Motion Picture Association  
PG-13 Rating

# Major Forest Certification Systems



- **F**orest **S**tewardship **C**ouncil (1993); Corporate & NIPF landowners worldwide



- **S**ustainable **F**orestry **I**nitiative (1995); Industry lands and public lands in US and CA – Recognizes ATFS certified wood in chain of custody



- **A**merican **T**ree **F**arm **S**ystem (1941); NIPF landowners in the US



- **P**rogram for the **E**ndorsement of **F**orest **C**ertification systems; includes SFI, ATFS and others globally; adds chain of custody



# Reasons to Certify Forestlands

- **Consumer demand is changing**

- Green building – (LEED in 2010 = 40,000 homes; 1,500,000 sf of buildings certified per day)
- Paper products – Weyerhaeuser

prefers ATFS, IP seeking FSC, Disney

- **Establishing new markets**

- Wood pellets and bioenergy must show sustainability (European standards)

- **Potential price premium**

- Gainesville Utilities





# Core Elements of Respected Forest Certification Systems

- \* *National Association of State Foresters 2008-7 Policy Statement for Forest Certification as it Relates to Sustainable Forestry Practices:*
  - Independent governance with economic, environmental, and social interests and independent third-party verifiers
  - Standards / performance measures developed by diverse stakeholder group
  - Independent certification by 3<sup>rd</sup> party auditors -
    - American National Standards Institute (ANSI) certified
  - Credible complaints & appeals process - process clearly identified
  - Open participation and transparency



# Typical Issues Addressed by Forest Certification Standards

- ✓ Compliance with Laws and Regulations (Legal Wood Procurement and Timber Harvests)
- ✓ Air, Water, Soil Quality (BMP's)
- ✓ Fish and Wildlife Habitat (Protect biodiversity)
- ✓ Endangered and Threatened Species
- ✓ Reforestation and Afforestation (Genetically Modified Organisms and Non-Native Species)
- ✓ Silvicultural Issues (Herbicide use)
- ✓ Societal Issues (Fair Labor Rules and Qualified Contractors)





# Matching of Principles and Objectives

**FSC**

1. Compliance with Laws and FSC Principles
2. Tenure and Use Rights and Responsibilities
3. Indigenous People's Rights
4. Community Relations and Worker's Rights
5. Benefits from the Forest
6. Environmental Impact
7. Management Plan
8. Monitoring and Assessment
9. Maintenance of High Conservation Value Forests
10. Plantations

**SFI**

1. Forest Management Planning
2. Forest Productivity
3. Protection and Mtce. of Water Resources
4. Conservation of Biological Diversity including Forests with Exceptional Conservation Value
5. Management of Visual Quality and Recreational Benefits
6. Protection of Special Sites
7. Efficient Use of Forest Resources
- 8-13. Fiber Sourcing
14. Legal and Regulatory Compliance
15. Forestry Research, Science, and Technology
16. Training and Education
17. Community Involvement in the Practice of Sustainable Forestry
18. Public Land Management Responsibilities
19. Communications and Public Reporting
20. Management Review and Continual Improvement

Sources: Forest Stewardship Council; <http://us.fsc.org/mission-and-vision.187.htm> and Sustainable Forestry Initiative, [http://www.sfiprogram.org/sustainable\\_forestry\\_initiative\\_standard.php](http://www.sfiprogram.org/sustainable_forestry_initiative_standard.php)



# Sustainability Principles

## ***FSC***

1. Compliance with Laws and FSC Principles
2. Tenure and Use Rights and Responsibilities
3. **Indigenous People's Rights**
4. Community Relations and Worker's Rights
5. Benefits from the Forest
6. **Environmental Impact**
7. Management Plan
8. Monitoring and Assessment
9. Maintenance of High Conservation Value Forests
10. **Plantations**

## ***SFI***

1. Sustainable Forestry
2. Forest Productivity and Health
3. Protection of Water Resources
4. Protection of Biological Diversity
5. Aesthetics and Recreation
6. Protection of Special Sites
7. Responsible Fiber Sourcing Practices in North America
8. Avoidance of Controversial Sources
9. Legal Compliance
10. **Research**
11. Training and Education
12. Public Involvement
13. Transparency
14. Continual Improvement



# Sustainability Principles/Standards

## ***FSC***

1. Compliance with Laws and FSC Principles
2. Tenure and Use Rights and Responsibilities
3. Indigenous People's Rights
4. Community Relations and Worker's Rights
5. Benefits from the Forest
6. Environmental Impact
7. Management Plan
8. Monitoring and Assessment
9. Maintenance of High Conservation Value Forests
10. Plantations

## ***ATFS***

1. Sustainable Forestry – Mgt. Plan
2. Legal Compliance
3. Reforestation and Afforestation
4. Air, Water Soil
5. Fish, Wildlife and Biodiversity
6. Aesthetics
7. Protection of Special Sites
8. Harvesting – Qualified Professionals



# Comparison of Certification Systems on Key Issues

## FSC

## ATFS

	FSC	ATFS
<b>Clearcut Limits</b>	AVG: 40 acres; Max: 80 acres	Does not specify
<b>Herbicide Restrictions</b>	No: Hexazinone, Atrazine, Dicamba, Permethrins, some 2,4-D	No specific restrictions, Must be EPA approved, applied, stored and disposed of
<b>Species Restrict.</b>	No: GMO, exotic species	Attempt to control invasives
<b>Tree Planting</b>	No exotics, avoid highly intensive management	Must meet all provisions within the standards
<b>Market Demand</b>	Demand rising from consumers & businesses - southern paper and wood pellets; Accepted by LEED; Began with HW furniture	Accepted by SFI chain-of-custody and PEFC chain-of-custody
<b>Direct Cost</b>	Groups: 100 members = \$70/yr/ea; 1000 members = \$7/yr/ea; Individual – more expensive <sup>1</sup>	Groups: \$.02/ac/yr if <250,000 ac Individual: currently no cost but could change <sup>2</sup>

<sup>1,2</sup>Source: FSC Paul Pingrey, personal communication & ATFS, SGSF Certification White Paper



# Current Standards

- Forest Stewardship Council



- 10 principles

- 56 criteria – general standards for various issues within each principle – same for all global regions

- ✓ 193 Indicators in the FSC-US standard – more detailed and specific to country or region

- **New FSC Family Forest Standard for low impact forests**

- < 2470 acres in forest ownership

or

- < 6100 green tons of wood harvested annually



# FSC Standards - Examples

## ■ Principle 10: Plantation Management

Indicator 10.2.c Openings lacking within-stand retention are limited to a 40 acre average and an 80 acre maximum. Harvest openings larger than 80 acres must have retention as required ....

Indicator 10.5.f Where natural ecosystems were previously converted to plantations, a percentage of the total area of the FMU must be maintained and/or restored to natural or semi-natural cover. The minimum percentage area that is maintained and/or restored in natural or semi-natural state is:

**For 100 acres or less, at least 10 percent**

**For 101-1,000 acres, at least 15 percent**

For 1,001-10,000 acres, at least 20 percent

For > 10,000 acres, at least 25 percent



# FSC Standards - Definitions

**Plantation: Forest areas lacking most of the principal characteristics and key elements of native ecosystems ..., which result from the human activities of either planting, sowing or intensive silvicultural treatments.**

***Except for highly extenuating circumstances the following are classified as plantations:***

- cultivation of *exotic species or recognized exotic sub-species*
- block plantings of cloned trees resulting in a major reduction of within-stand genetic diversity compared to what would be found in a natural stand of the same species
- cultivation of any tree species in areas that were naturally non-forested ecosystems



# FSC Standards - Definitions

**Genetically modified organisms: Biological organisms that have had their genetic material artificially altered in a way that does not occur naturally by mating or natural recombination or both. Examples of techniques covered by this definition include:**

- Recombinant DNA techniques using viral or bacterial vectors
- The direct introduction of DNA into an organism, eg by microinjection
- Cell fusion or hybridization

**(Clones, hybrids formed by natural pollination processes, or the products of tree selection, grafting, vegetative propagation or tissue culture are not GMOs, unless produced by GMO techniques)**





# FSC Family Forest Certification Costs

## FSC Group Certification Costs

*5-year Total FSC Certification Audit Cost Estimates*

**100 members: about \$35,000 (\$70 each per year)**

**1,000 members: about \$35,000 (\$7 each per year)**

**10,000 members: about \$50,000 (\$1 each per year)**

**40,000 members: \$90,000 to \$120,000 (less than \$1 each per year)**

## Economies of Scale due to Sampling

## Who Pays?

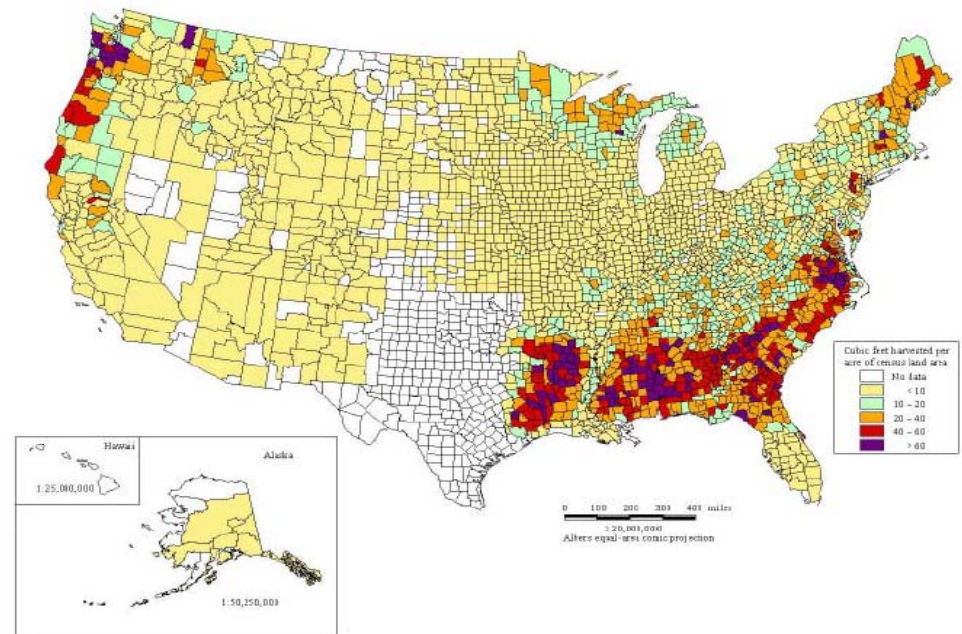
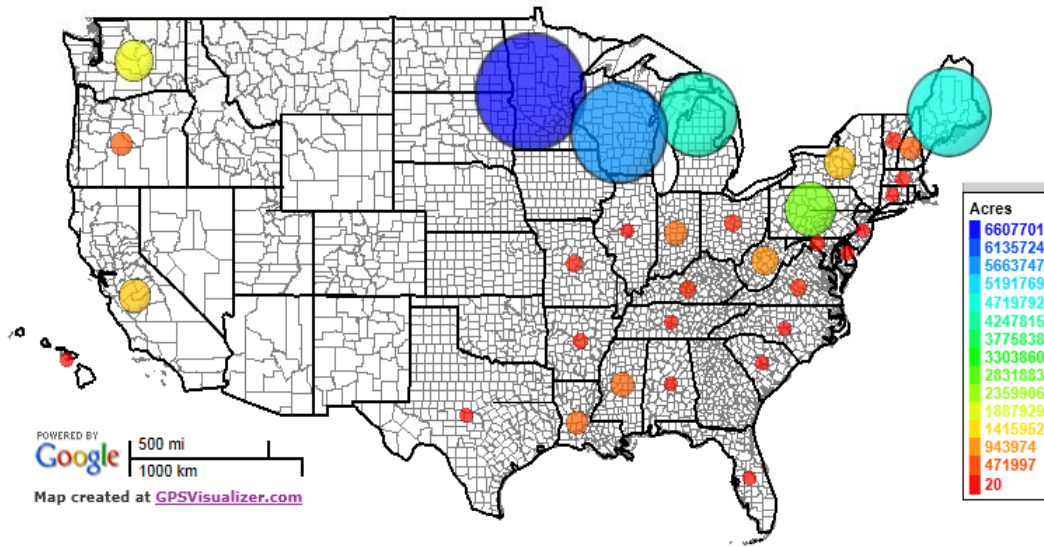
**Group Manager, landowners, industry (in some cases)**



Photo: A. Magill



# Location of FSC & Forest Products



Source: *FSC Certificate Database*

Figure 1.9—Intensity of roundwood harvest for all products in the United States by county, 1996.



# ATFS Current Standards



## ■ American Tree Farm System

8 Standards (Broad tools to measure sustainability)

- Performance Measure: What needs to be accomplished to meet the standard
  - Indicator: How should this be accomplished

### **Example** ~ Standard 3: Reforestation and Afforestation

Reforest harvested sites in a timely manner and plant non-stocked areas.

- Performance Measure 3.1

Reforestation or Afforestation must be achieved by a suitable process that ensures adequate stocking levels.



# ATFS Current Standards

- American Tree Farm System
  - Indicator 3.1.1
    - » Harvested area must:
    - » Adequate stocking
    - » Desirable species
    - » Reflect owner's objectives
    - » Within specified time frame (<5 years)





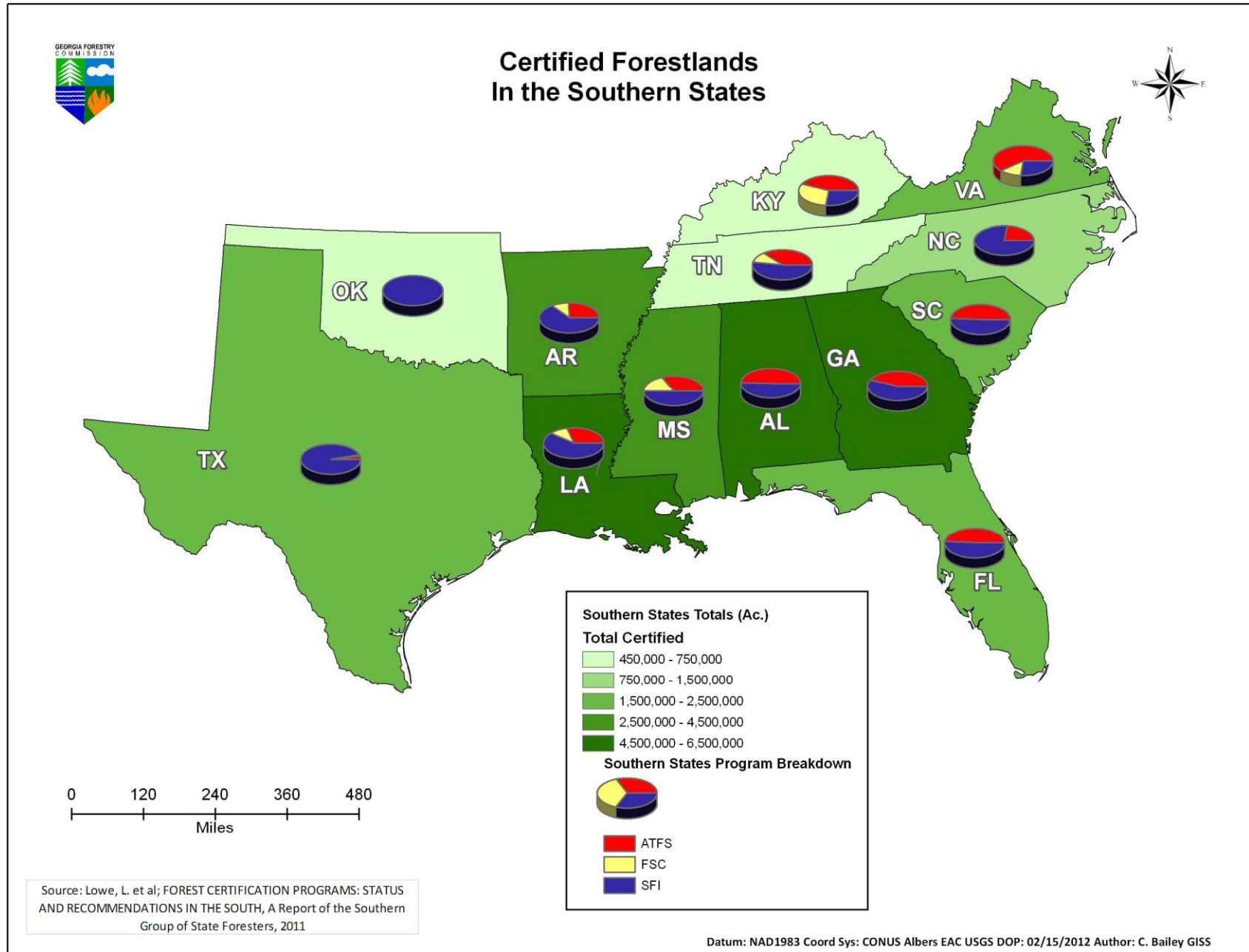
# ATFS Certification Costs



- American Tree Farm
  - Individual certifications: 10 – 10,000 acres
- Currently no cost for individual certifications (?)
- Not sure how much longer
  - Independent Managed Group (IMG) certification
    - Less than 249,000 acres: \$0.02/acre
    - 250,000-499,000 acres: \$0.03/acre
    - 500,000-1,000,000 acres: \$0.04/acre
    - 1,000,001 or more: \$0.05/acre
    - ATFS invoices both IMGs and Independent Third-Party certificate holders for annual fees in the first quarter of the calendar year.



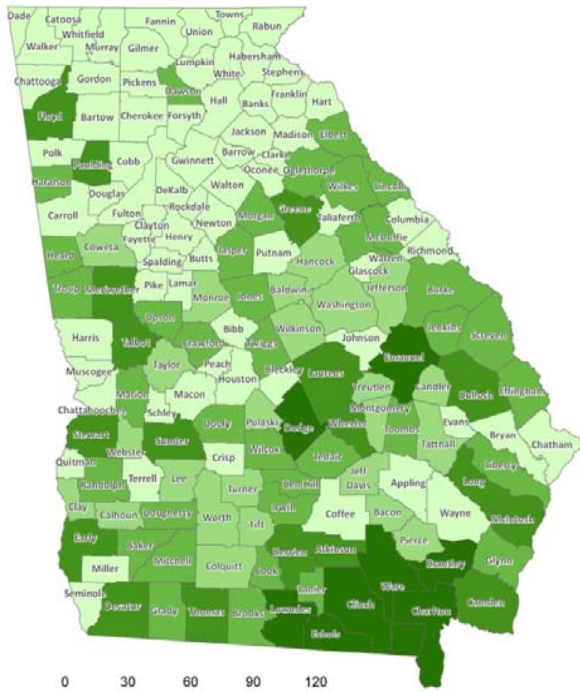
# Certified Forests in the South



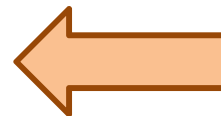
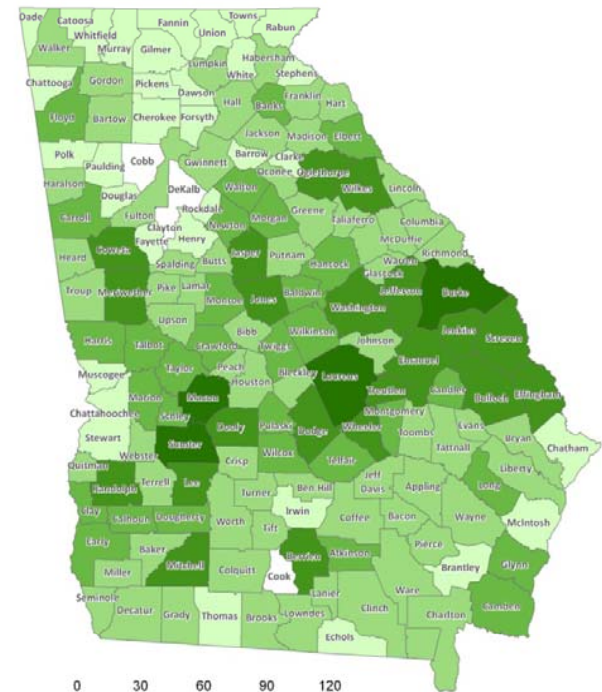


# County Level Certification Data

### Certified Tree Farm Acres in Georgia by County



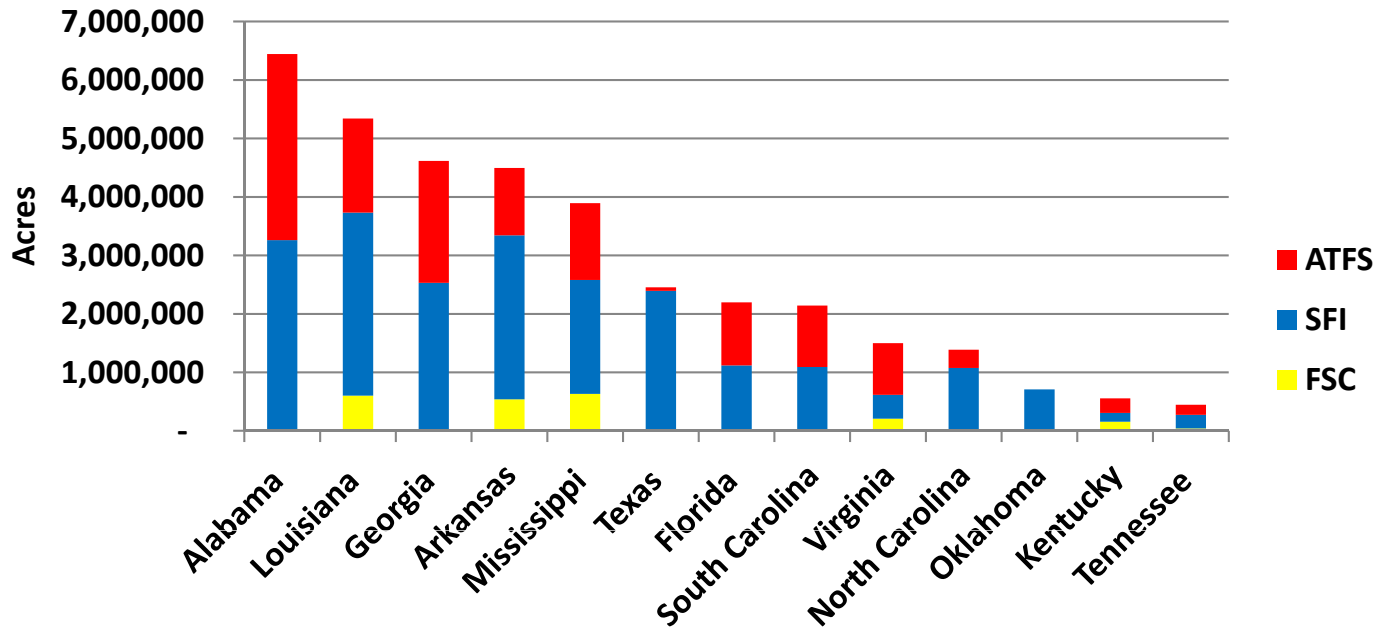
### Active Stewardship Acres in Georgia by County



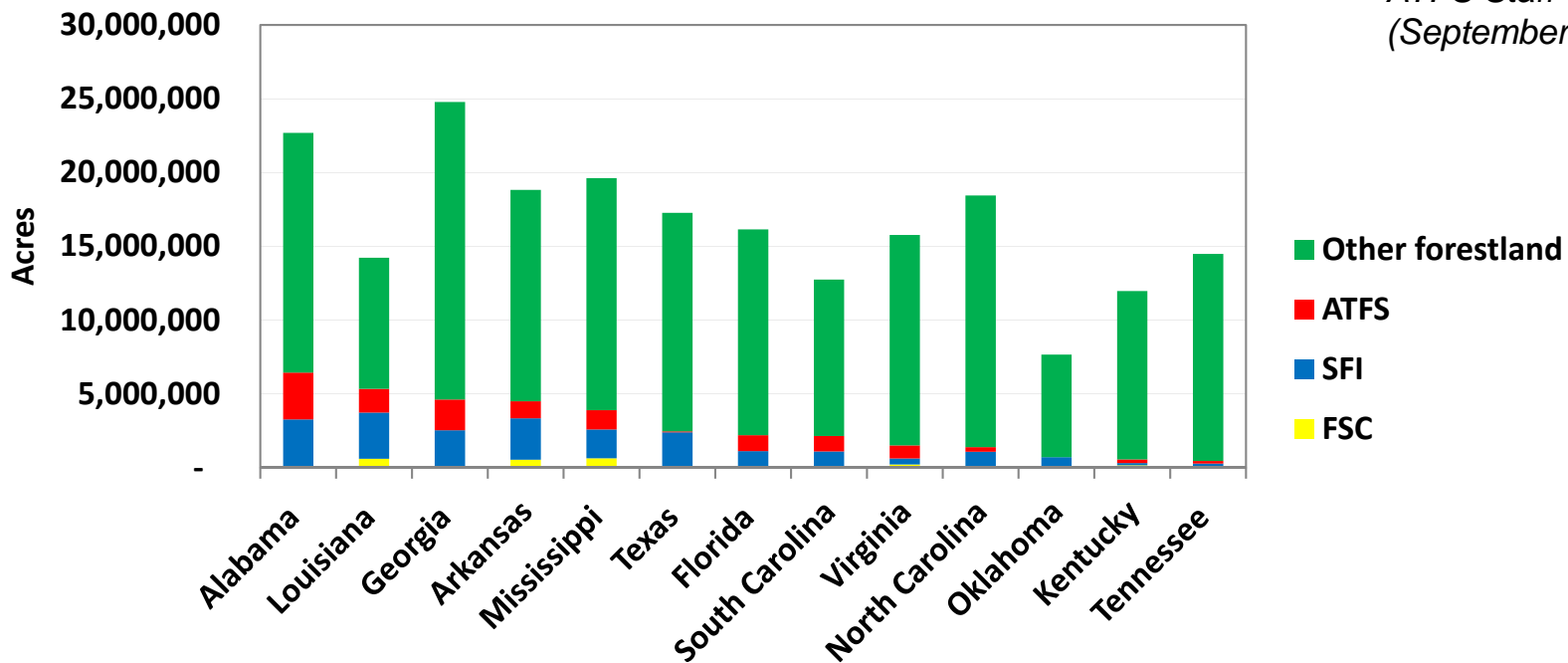
Sustainable?  
Certified?



# Certified Forests in the South



**Sources:** SFI Program Certification Database, FSC Certificate Database, ATFS Staff Communication (September 1, 2011).



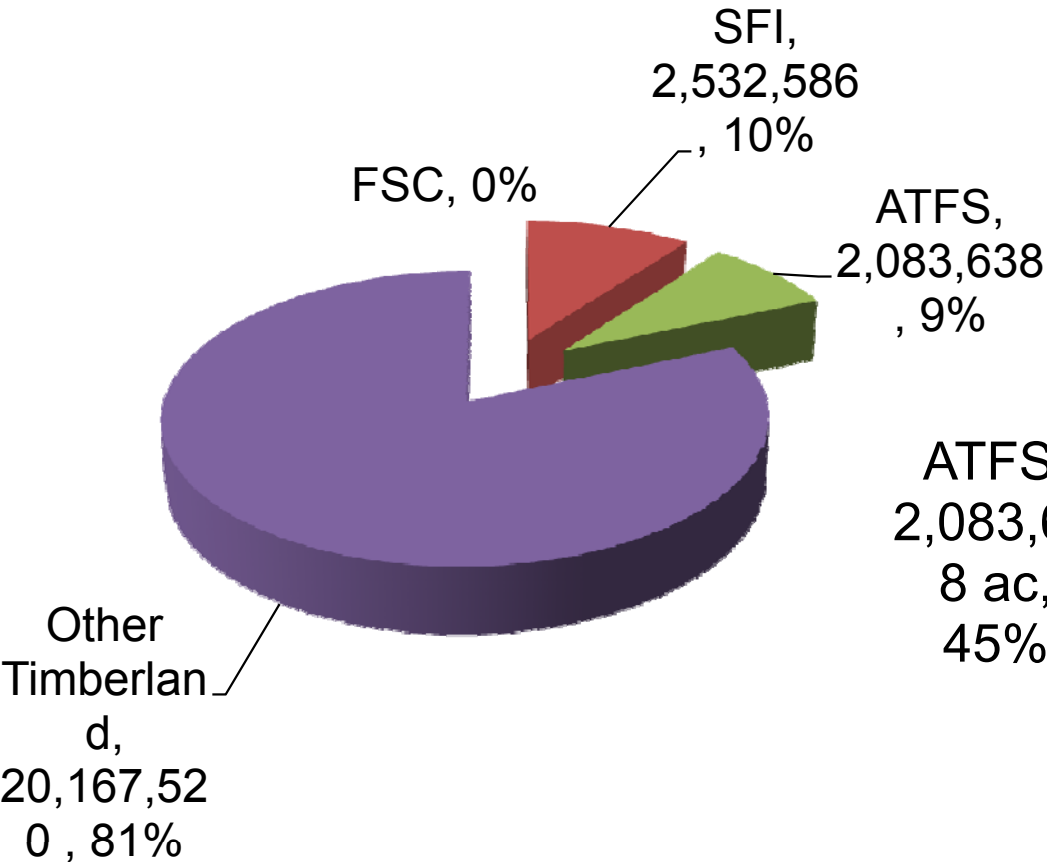




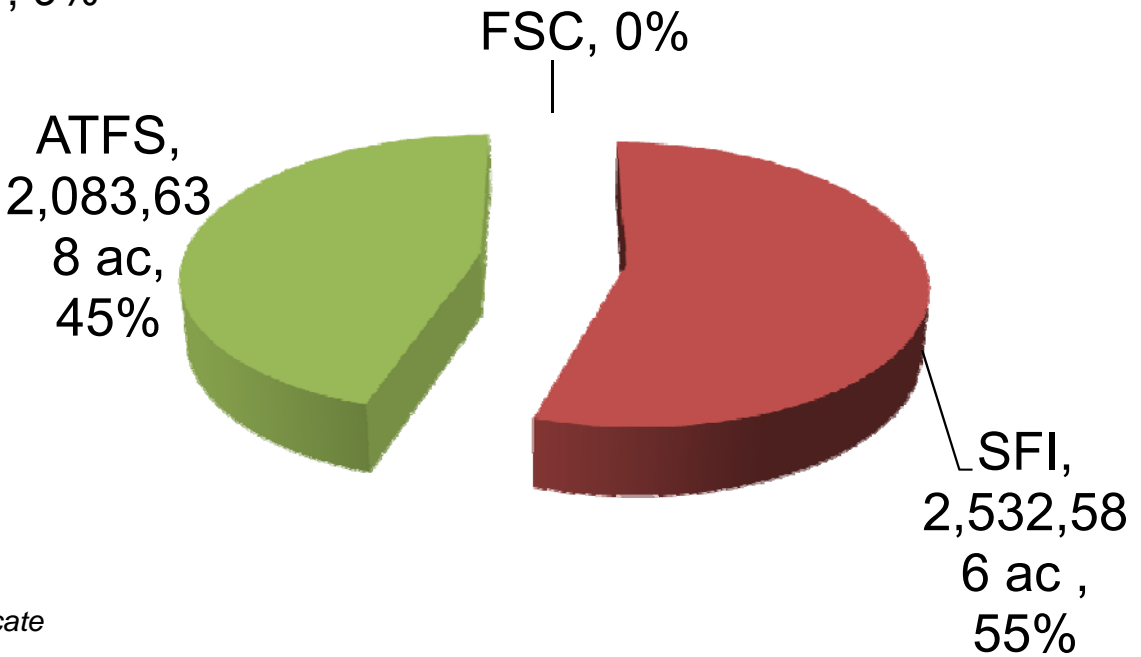
# Forest Certification Status - Georgia

## All Timberlands

Georgia: 19.6% of forestland is certified.....No FSC as of yet, but this may have already changed



## A Look at Certified Lands Only



Sources: SFI Program Certification Database, FSC Certificate Database, ATFS Staff Communication (September 1, 2011).



# SGSF Forest Certification Report

## ■ Types

- Forest management – individual and group
- Chain-of-custody

## ■ Key elements

- *Independent governance with economic, environmental, and social interests*
- *Standards / performance measures developed by diverse stakeholder group*
- *Independent certification by 3<sup>rd</sup> party auditors*
- *Credible complaints & appeals process*
- *Open participation and transparency*

## ■ Major forest certification systems

- *ATFS, FSC, SFI*



**FOREST CERTIFICATION PROGRAMS:  
STATUS AND RECOMMENDATIONS  
IN THE SOUTH**

A Report of the Southern Group of State Foresters

Authors:

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November 18, 2011



# Summary of Recommendations from Forest Certification Report

- **Inform** agency service foresters, landowners, consulting foresters, wood dealers, and others in the forest industry about certification systems
- Promote forest certification as voluntary and market based (**not regulatory**)
- States should include certified products as a data field on state and online forest product **directories**.
- Continue to **monitor** status and standards of forest certification systems to provide "**best fit**" for various landowners and market types
- Promote the use of green building systems that encourage the use of wood products and which **credit SFI and ATFS** systems **as well as FSC**.



# Summary

- Demand for certified wood is growing
- The preference is market driven – perhaps more by businesses protecting their reputation than by consumers
- ATFS and FSC have standards focused on owners with smaller land holdings
- Green building will continue to grow
- LEED will continue to prefer FSC (1 pt.)
- Future – forest certification will be BAU in highly competitive wood market areas, more sustainability measures will be required in all phases of forestry





# Questions?



Interested in:

- American Tree Farm System: [www.treefarmssystem.org](http://www.treefarmssystem.org)
- Forest Stewardship Council: <http://us.fsc.org/family-forests.202.htm>  
(Local contacts are in the handouts)