HARDWOOD SUSTAINABILITY
South Carolina – Case Study

Tim Adams
“U.S. Forest Area Increased slightly between 2007 and 2012, continuing a trend that began in the 1980’s.”
U.S. Timberlands are Maturing
SNAPSHOT OF SOUTH CAROLINA’S FORESTS TODAY
THERE ARE 12.9 MILLION ACRES OF FORESTLAND IN SC.
SC’s FORESTS HAVE MORE WOOD THAN EVER RECORDED

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SC’s FORESTS HAVE MORE WOOD THAN EVER RECORDED
FOR BOTH SOFTWOOD & HARDWOOD

COMPARISON OF HARDWOOD/SOFTWOOD VOLUMES, 1936 -2016
Timberland, all live trees 5in+

- Billion cubic feet

- 0 2 4 6 8 10 12 14


- Softwoods
- Hardwoods

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Saw-log Portion of Sawtimber Trees on the Increase

Volume of Saw-log Portion of Sawtimber Trees on Timberland

Volume of Saw-log Portion of Sawtimber Trees in South Carolina

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SC’s FORESTS ARE BALANCED AND DIVERSE

South Carolina Forest Types, 2016

- Lowland Hardwoods: 18%
- Natural Pine: 25%
- Upland Hardwoods: 22%
- Planted Pine: 23%
- Mixed Pine/Hardwood: 12%
Private landowners own 88% of South Carolina’s forestland and produce 96% of the state’s timber supply.
Timberland Acreage of Southern Yellow Pine, SC - 2016
TIMBERLAND ACREAGE OF ALL HARDWOOD, SC - 2016

5-yr Age Class

0-5  6-10  11-15  16-20  21-25  26-30  31-35  36-40  41-45  46-50  51-55  56-60  61-65  66-70  71-75  76-80  81-85  86-90  91-95  96-100  100+
TIMBERLAND ACREAGE OF OAK-GUM-CYPRESS, SC - 2016

- 0-5
- 6-10
- 11-15
- 16-20
- 21-25
- 26-30
- 31-35
- 36-40
- 41-45
- 46-50
- 51-55
- 56-60
- 61-65
- 66-70
- 71-75
- 76-80
- 81-85
- 86-90
- 91-95
- 96-100
- 100+
SOUTH CAROLINA’S FOREST INDUSTRY
SC’s HARVEST REMOVALS FOR 2016

Average Annual Harvest Removals of Live Trees in SC - 2016

Hardwood Sawtimber vs Pulpwood Harvest in 2016
HARDWOOD’S TOP 10 HARVESTED SPECIES

Top 10 Hardwood Sawtimber Species Harvested in SC - 2016

1. Red Oak (8 spp.)
2. Sweetgum
3. Yellow-poplar
4. Red maple
5. White oak (3 spp.)
6. Tupelo spp.
8. Blackgum
9. Elm spp.
10. Ash spp.
WOOD PRODUCT MANUFACTURING FACILITIES

Primary mills
- Sawmills: 40
- Veneer: 5
- Pulp and paper mills: 7
- Composite panel board: 3
- Other: 43
- TOTAL: 98

Secondary mills: 767
## Recent Estimates of Forestry’s Impact in SC

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Economic Impact</th>
<th>Value-Added (GSP)</th>
<th>Employment</th>
<th>Labor Income</th>
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<tbody>
<tr>
<td>2006</td>
<td>$17.4 Billion</td>
<td>$7.0 Billion</td>
<td>90,624 Jobs</td>
<td>$4.1 Billion</td>
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<td>2013</td>
<td>$18.6 Billion</td>
<td>$6.8 Billion</td>
<td>90,320 Jobs</td>
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<td>2015</td>
<td>$21.0 Billion</td>
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<td>84,425 Jobs</td>
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BREAKDOWN OF FORESTRY’S ECONOMIC IMPACT IN SC

Figure 4. Direct economic effects of forestry sectors in South Carolina, 2017.
RECENT SOUTH CAROLINA ANNOUNCEMENTS

FY’17
- ROSEBURG FOREST PRODUCTS – LVL ($200 MILLION, 145 JOBS)
- WEST FRASER – LUMBER ($33 MILLION)
- DEMPSEY WOOD PRODUCTS – LUMBER ($7 MILLION)
- JAMES HARDIE BUILDING PRODUCTS – HARDIE BOARDS ($15 MILLION, 100 JOBS)

FY’16
- KRONOTEX USA – HDF ($230 MILLION, 105 JOBS)
- CAROLINA CHIPS – P&P ($32 MILLION)
- BLACKWATER BARRELS – BOURBON BARRELS ($3.6 MILLION, 57 JOBS)

FY’15
- COLOMBO ENERGY – PELLETS ($110 MILLION, 70 JOBS)
- ORCHIDS PAPER PRODUCTS – TISSUE ($110 MILLION, 134 JOBS)
SUSTAINABILITY OF SOUTH CAROLINA’S RESOURCE
SOUTH CAROLINA’S TIMBERLAND INVENTORY IS GROWING 1.6% PER YEAR.

Total Growing Stock Inventory

Annual Gross Growth (5.9%)

Annual Removals (3.5%)

Annual Mortality (0.8%)
Wood Availability Follows a Cyclic Pattern

Growth/Drain Ratios by Species Group, 1936-2016

- Softwood
- Hardwood
- Pulp mills
- OSB
- Pellets
Oversight by a 10-person committee (Sam Houston, chair)
Committee make-up balanced among industry sectors
Forest landowners represented on committee.
Future wood demand bracketed with High-Medium-Low approach.
Future wood demand based on realistic expectations.
SUBREGIONAL TIMBER SUPPLY MODEL (SRTS)

Resource Committee Approved SC SRTS Demand/Removal Input

- PST High - Expansion, Future
- PST Med - Expansion Existing
- PST Low - As of 2013, Announced
- PPW High - Expansion Existing, Future
- PPW Med - Expansion Existing
- PPW Low - As of 2013, Existing, Under Construction, Announced

PPW demand reduces as proposed new sawmills provide pine chips to paper mills, pellets, etc.
GROWTH IN PELLET MANUFACTURING LEVELING OFF?

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7 NEW SC LOG EXPORT OPERATIONS
TOTAL WOOD INVENTORY WILL CONTINUE TO GROW
HARDWOOD SUPPLY WILL CONTINUE TO GROW
FOREST PRODUCT EXPORTS FROM THE U.S. SOUTH ARE AT RECORD HIGHS

LUMBER EXPORTS FROM SOUTH CAROLINA BY VALUE & VOLUME

VALUE

2002 - 17 Lumber Exports from South Carolina by Species Group (Millions U.S. Dollars)

VOLUME

2002 - 17 Lumber Exports from South Carolina by Species Group (Thousands Metric Tons)
LOG EXPORTS FROM SOUTH CAROLINA BY VALUE & VOLUME

VALUE

2002 - 17 Log Exports from South Carolina by Species Group
(Millions U.S. Dollars)

VOLUME

2002 - 17 Log Exports from South Carolina by Species Group
(Thousands Metric Tons)
HARDWOOD LOG AND LUMBER EXPORTS FROM SOUTH CAROLINA BY DESTINATION

LOGS

2012 - 17 Hardwood Log Exports from South Carolina by Partner (U.S. Dollars)

- China 47%
- Vietnam 16%
- India 10%
- Spain 8%
- United Kingdom 4%
- Italy 2%
- Japan 2%
- Other 11%

LUMBER

2012 - 17 Hardwood Lumber Exports from South Carolina by Partner (U.S. Dollars)

- China 38%
- Vietnam 14%
- United Kingdom 12%
- Ireland 5%
- South Africa 3%
- Malaysia 2%
- Indonesia 2%
- Germany 2%
- Canada 2%
- Other 20%
SOUTH CAROLINA IS A NET EXPORTER OF HARDWOOD LOGS AND LUMBER

• MANY NATIONAL & REGIONAL FOREST RESOURCE TRENDS FIT SC
  • SC FORESTS HAVE MORE WOOD THAN EVER RECORDED
  • SC’S FOREST INDUSTRY IS MORE PRODUCTIVE THAN EVER.
• PROJECTIONS SHOW SC’S CONTINUED STRENGTH IN SAWTIMBER
  • THE SOUTH IS THE WOODBASKET TO THE WORLD
SOUTH CAROLINA FORESTRY COMMISSION

5500 Broad River Road
Columbia SC 29212
(803) 896-8802
tadams@scfc.gov
www.trees.sc.gov