The South African Forestry and Forest Products Industry 2015

Produced By Roger Godsmark
Forestry South Africa, January 2017
Presentation Outline

- Introduction
- The importance of the Forestry Industry
- The importance of the Forest Products Industry
- Industry Contribution to Employment
- Investment
- Industry Contribution to GDP
- Industry Contribution to Foreign Trade
Section 1
Introduction
Land Use in South Africa

- Grazing: 68.6%
- Arable: 13.9%
- Nature Conservation: 9.6%
- Other: 6.9%
- Forestry: 1.0%

Total RSA land area – 122.3 million ha

Grazing: 1 224 456 ha
Land Use in Mpumalanga

- Grazing: 39.6%
- Arable: 21.9%
- Nature Conservation: 28.5%
- Other: 3.9%
- Forestry: 6.1%

Total Mpum. land area – 8.2 million ha (6.7% of total)
Land Use in KwaZulu Natal

- Grazing: 58.3%
- Arable: 12.9%
- Nature Conservation: 15.1%
- Other: 8.5%
- Forestry: 5.3%

Total KZN land area – 9.1 million ha (7.5% of total)
Land Use in the Eastern Cape

Grazing: 80.0%
Arable: 6.8%
Nature Conservation: 3.7%
Other: 8.7%
Forestry: 0.8%

Total E. Cape land area – 17.1 million ha (13.9% of total)

141 747 ha
Land Use in the Western Cape

- Grazing: 70.4%
- Arable: 20.1%
- Nature Conservation: 5.6%
- Other: 3.5%
- Forestry: 0.4%

Total W. Cape land area – 12.9 million ha (10.6% of total)
Land Use in Limpopo

- Grazing: 74.0%
- Arable: 14.4%
- Nature Conservation: 9.7%
- Other: 1.5%
- Forestry: 0.4%

Total Limpopo land area – 12.0 million ha (9.8% of total)

48 353ha
Plantation Area as % of Land Area by Province

<table>
<thead>
<tr>
<th>Province</th>
<th>% of Land Area Afforested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mpumalanga</td>
<td>6.07%</td>
</tr>
<tr>
<td>KZN</td>
<td>5.34%</td>
</tr>
<tr>
<td>E. Cape</td>
<td>0.83%</td>
</tr>
<tr>
<td>Limpopo</td>
<td>0.40%</td>
</tr>
<tr>
<td>W. Cape</td>
<td>0.38%</td>
</tr>
</tbody>
</table>
Land Use Comparisons
2005, 2010 & 2015

Drop in Forestry Area – 110,000 ha (8.2%)
Plantation Area Comparisons 2015

- China: 46.670 million hectares
- India: 32.578 million hectares
- Russia: 17.340 million hectares
- USA: 16.238 million hectares
- Japan: 10.682 million hectares
- Indonesia: 9.871 million hectares
- Brazil: 4.982 million hectares
- Thailand: 4.920 million hectares
- Ukraine: 4.425 million hectares
- Iran: 2.284 million hectares
- RSA: 1.224 million hectares
Section 2
The Forestry Industry
Plantation Area by Species 2015

- Pine: 50.6%
- Eucalyptus: 41.8%
- Wattle: 7.2%
- Other: 0.4%

Total - 1,224,456 ha
Plantation Area by Ownership 2015

- Corporate: 50.0%
- Commercial Farmers: 17.2%
- Corporate (Ex Safcol): 11.7%
- SAFCOL: 10.4%
- State/ Municipalities: 7.0%
- Small Growers: 3.7%

Total – 1,224,456 ha
Plantation Area by Province 2015

Total – 1,224,456ha
Plantation Area by Province and Genera 2015

<table>
<thead>
<tr>
<th>Province</th>
<th>Total Hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Hardwood</strong></td>
<td><strong>Softwood</strong></td>
</tr>
<tr>
<td>W. Cape</td>
<td>190 638</td>
</tr>
<tr>
<td>KZN</td>
<td>120 920</td>
</tr>
<tr>
<td>E. Cape</td>
<td>23 422</td>
</tr>
<tr>
<td>Limpopo</td>
<td>1 980</td>
</tr>
</tbody>
</table>

**Total**
- **619 311 ha** (softwood)
- **605 145 ha** (hardwood)
Planted Area Comparisons by Province & Species 2015

- **Pine**
  - KZN: 120,920
  - Mpumalanga: 305,835
  - E Cape: 118,326
  - W Cape: 293,404
  - Limpopo: 21,300

- **Eucalyptus**
  - KZN: 20,868
  - Mpumalanga: 175,032
  - E Cape: 1,622
  - W Cape: 21,144
  - Limpopo: 73,118

- **Wattle**
  - KZN: 1,149
  - Mpumalanga: 2,641
  - E Cape: 410
  - W Cape: 337
  - Limpopo: 62

- **Other**
  - KZN: 0
  - Mpumalanga: 0
  - E Cape: 0
  - W Cape: 0
  - Limpopo: 0

Hectares
Pine Plantation Area by Province 2015

- **Mpumalanga**: 49.4%
- **KZN**: 19.5%
- **E Cape**: 19.1%
- **W Cape**: 7.6%
- **Limpopo**: 4.3%

Total = 619,311 ha (51.0% of total)
Eucalyptus Plantation Area by Province 2015

Total – 512 226 ha (41.8% of total)
Wattle Plantation Area by Province 2015

- Mpumalanga: 14.7%
- KZN: 82.8%
- E Cape: 2.4%
- W Cape: 0.0%
- Limpopo: 0.1%

Total – 88 320 ha (7.2% of total)
Other Hardwood Plantation Area by Province 2015

- Mpumalanga: 57.4%
- KZN: 25.0%
- E Cape: 8.9%
- W Cape: 7.3%
- Limpopo: 1.3%

Total – 4 599 ha (0.4% of total)
Plantation Area by Management Objectives 2015

<table>
<thead>
<tr>
<th>Purpose</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulpwood</td>
<td>38.2%</td>
</tr>
<tr>
<td>Sawlogs</td>
<td>56.5%</td>
</tr>
<tr>
<td>Mining Timber</td>
<td>2.6%</td>
</tr>
<tr>
<td>Poles</td>
<td>2.1%</td>
</tr>
<tr>
<td>Other</td>
<td>0.6%</td>
</tr>
</tbody>
</table>

Total – 1,224,456 ha
Softwood Plantation Area by Management Objectives 2015

- Pulpwood: 0.0%
- Poles: 72.6%
- Sawlogs: 0.4%
- Other: 27.0%

Total – 619,311 ha
Hardwood Plantation Area by Management Objectives 2015

- **Pulpwood**: 86.7%
- **Sawlogs**: 2.9%
- **Mining Timber**: 5.3%
- **Poles**: 4.2%
- **Other**: 0.9%

Total – 605,145 ha
Plantation Area by Province and Ownership 2015

- **Mpumalanga**
  - Total Private: 364,549 ha (83.0%)
  - Total Public: 131,922 ha (17.0%)

- **KZN**
  - Total Private: 457,199 ha
  - Total Public: 31,392 ha

- **E.Cape**
  - Total Private: 114,346 ha
  - Total Public: 27,402 ha

- **Limpopo**
  - Total Private: 26,463 ha
  - Total Public: 21,891 ha

- **W. Cape**
  - Total Private: 48,711 ha
  - Total Public: 581 ha

**Leased Safcol packages included in “Private”**
**KLF included in “Public”**

**Total Private** – 1,011,268 ha (83.0%)
**Total Public** – 213,188 ha (17.0%)
Percentage Plantation Ownership by Province 2015

**Publicly Owned**

- Limpopo: 55%
- Mpumalanga: 73%
- E.Cape: 81%
- KZN: 94%
- W. Cape: 99%

**Privately Owned**

- Limpopo: –
- Mpumalanga: 1 011 268 ha (83.0%)
- E.Cape: –
- KZN: 213 188 ha (17.0%)
- W. Cape: –

Total Private – 1 011 268 ha (83.0%)
Total Public – 213 188 ha (17.0%)
Plantation Area by Species and Ownership 2015

Total Private – 1 011 268 ha (83.0%)
Total Public – 213 188 ha (17.0%)
Percentage Plantation Ownership by Species 2015

- Pine: 75% privately owned, 25% publicly owned
- Other Hard.: 83% privately owned
- Eucalyptus: 90% privately owned
- Wattle: 95% privately owned

Total Private – 1,011,268 ha (83.0%)
Total Public – 213,188 ha (17.0%)
Planted Area Comparisons by Province & Product 2015

<table>
<thead>
<tr>
<th>Product</th>
<th>KZN</th>
<th>Mpumalanga</th>
<th>E Cape</th>
<th>W Cape</th>
<th>Limpopo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulpwood</td>
<td>0</td>
<td>20794</td>
<td>368</td>
<td>67054</td>
<td>255595</td>
</tr>
<tr>
<td>Sawlogs</td>
<td>2050</td>
<td>48688</td>
<td>36637</td>
<td>105619</td>
<td>209336</td>
</tr>
<tr>
<td>Mining Timber</td>
<td>1612</td>
<td>24058</td>
<td>4206</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
<td>5014</td>
<td>7483</td>
<td>236</td>
<td>6738</td>
<td>0</td>
</tr>
</tbody>
</table>

Hectares
Roundwood Production by Product 2015

- **Pulpwood**: 11.838 million m³
- **Sawlogs**: 4.677 million m³
- **Mining Timber**: 0.580 million m³
- **Poles**: 0.428 million m³
- **Other**: 0.375 million m³

**Total** - 6.8 million m³ / 7.0 mt (softwood)

**Total** - 11.1 million m³ / 8.3 mt (hardwood)
Roundwood Production by Province and Genera 2015

<table>
<thead>
<tr>
<th>Province</th>
<th>Hardwood</th>
<th>Softwood</th>
</tr>
</thead>
<tbody>
<tr>
<td>KZN</td>
<td>1.548</td>
<td>0.003</td>
</tr>
<tr>
<td>Mpumalanga</td>
<td>2.518</td>
<td>0.508</td>
</tr>
<tr>
<td>E. Cape</td>
<td>0.400</td>
<td>0.135</td>
</tr>
<tr>
<td>Limpopo</td>
<td>0.303</td>
<td></td>
</tr>
<tr>
<td>W. Cape</td>
<td>0.003</td>
<td>0.135</td>
</tr>
</tbody>
</table>

Total – 6.8 million m³ / 7.0 mt (softwood)
Total – 11.1 million m³ / 8.3 mt (hardwood)
Roundwood Production by Province and Genera 2015

Total – 6.8 million m³ / 7.0 mt (softwood)
Total – 11.1 million m³ / 8.3 mt (hardwood)
Roundwood Production ex Plantations by Province & Product 2015

Total – 17.9 million m³ or 15.3 million tons
Roundwood Production ex Plantations by Province & Product 2015

- KZN: 9.386 million m³
  - Pulpwood: 5.614 million m³
  - Sawlogs: 2.056 million m³
  - Other: 0.704 million m³
- Mpum: 5.614 million m³
- E. Cape: 2.056 million m³
- Limpopo: 0.704 million m³
- W. Cape: 0.138 million m³

Total – 17.9 million m³ or 15.3 million tons
Total Roundwood Production ex Plantations by Province 2015

- KZN: 52.5%
- Mpumalanga: 31.4%
- E. Cape: 11.5%
- Limpopo: 3.9%
- W. Cape: 0.8%

Total – 17.9 million m³ or 15.3 million tons
Total Roundwood Production ex Plantations by Product 2015

- Pulpwood: 66.1%
- Sawlogs: 26.1%
- Mining Timber: 3.2%
- Poles: 2.4%
- Other: 2.1%

Total – 17.9 million m$^3$ or 15.3 million tons
Softwood Roundwood Production ex Plantations by Product 2015

- Sawlogs: 64.3%
- Pulpwood: 34.1%
- Poles: 0.7%
- Other: 0.9%

Total – 6.8 million m³ or 7.0 million tons
Hardwood Roundwood Production ex Plantations by Product 2015

- Pulpwood: 85.6%
- Mining Timber: 5.2%
- Poles: 3.4%
- Sawlogs: 2.9%
- Other: 2.8%

Total – 11.1 million m³ or 8.3 million tons
Total Roundwood Production ex Plantations by Species 2015

- Pine: 36.0%
- Eucalyptus: 59.1%
- Wattle: 4.8%
- Other: 0.1%

Total – 17.9 million m³ or 15.3 million tons
Composition of Roundwood Production by Product 2015

Overall: Softwood = 38% & Hardwood = 62%
Total Plantation Area 1980 to 2015

Total increase in planted area over period – 63 049 ha (5.4%)
Total Roundwood Production ex Plantations 1980 to 2015

Total increase in production over period: 50.6%
Total increase in afforested area over period: 5.4%
Roundwood Production vs. Plantation Area 1980 to 2015

Total increase in production over period: 50.6%
Total increase in afforested area over period: 5.4%
Average Productivity per Hectare
1980 - 2015

Total increase in productivity over period – 4.4 m³ per ha p.a. (43%)
Value of Roundwood Production 2015

- Pulpwood: 72.0%
- Mining Timber: 4.0%
- Other: 2.2%
- Sawlogs: 21.8%

Total – R9.5 billion
Value of Roundwood Production ex Plantations by Product 2015

- **Pulpwood**: 6.839 Billion Rands
- **Sawlogs**: 2.071 Billion Rands
- **Other**: 0.381 Billion Rands
- **Mining Timber**: 0.207 Billion Rands

Total – R9 449 million
Value of Roundwood Production ex Plantations by Province 2015

- KZN: R5 256 million
- Mupumlanga: R2 863 million
- Eastern Cape: R1 010 million
- Limpopo: R308 million
- Western Cape: R62 million

Total – R9 499 million
Value of Roundwood Production ex Plantations by Province & Product 2015

- KZN: R4,680 million
- Mupumlanga: R1,753 million
- Eastern Cape: R522 million
- Limpopo: R188 million
- Western Cape: R53 million

Total – R9,499 million
Value of Roundwood Production ex Plantations by Province & Product 2015

- KZN: $5,256 million
  - Sawlogs: $308 million
  - Pulpwood: $5,048 million
- Mupumlanga: $2,863 million
  - Sawlogs: $786 million
  - Pulpwood: $2,077 million
- Eastern Cape: $1,010 million
  - Sawlogs: $628 million
  - Pulpwood: $382 million
- Limpopo: $308 million
  - Sawlogs: $25 million
  - Pulpwood: $283 million
- Western Cape: $62 million
  - Sawlogs: $2 million
  - Pulpwood: $60 million

Total – R9 499 million
Value of Roundwood Production 1980 to 2015

Nominal increase over period: R9.3 bn (5668%)
Real increase over period: R5.8 bn (154%)
New afforestation over period - 389 805 ha
Average per year - 10 827 ha
Total New Afforestation by Region
1980 to 2015

- KZN: 54.5%
- Mpumalanga & Limpopo: 33.6%
- E&W Cape: 11.9%

Total – 389,805 ha
Total New Afforestation by Region
10 Yr Period - 2006 to 2015

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
<th>Total (ha)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KZN</td>
<td>74.8%</td>
<td>18,827</td>
</tr>
<tr>
<td>Mpumalanga &amp; Limpopo</td>
<td>24.6%</td>
<td></td>
</tr>
<tr>
<td>E&amp;W Cape</td>
<td>0.6%</td>
<td></td>
</tr>
</tbody>
</table>

Total – 18,827 ha
New afforestation over period - 18 827 ha
Average per year - 1 883 ha
New Afforestation by Province 2015

- **W. Cape**: 1.8%
- **KZN**: 36.2%
- **Limpopo**: 3.6%
- **Mpumalanga**: 3.6%
- **E. Cape**: 0.0%

**Total**: 889 ha
New Afforestation by Species
1980 to 2015

**Average p.a. 1980 to 1985**
- 10 974 ha (16.9% of total)

**Average p.a. 1986 to 1990**
- 24 558 ha (31.5% of total)

**Average p.a. 1991 to 1995**
- 24 406 ha (31.3% of total)

**Average p.a. 1996 to 2000**
- 7 019 ha (9.0% of total)
Total New Afforestation by Species
1980 to 2015

- Pine: 46.8%
- Eucalyptus: 43.8%
- Wattle: 8.5%
- Other: 1.0%

Total – 389,805 ha
New Afforestation by Species 2015

- Eucalyptus: 49.0%
- Wattle: 12.9%
- Pine: 1.6%
- Other Hardwood: 36.4%

Total – 889 ha
New Afforestation by Product
1980 to 2015

Average p.a. 2001 to 2005 - 5,044 ha (6.5% of total)
Average p.a. 2006 to 2010 - 2,225 ha (3.3% of total)
Average p.a. 2011 to 2015 - 1,174 ha (1.5% of total)
Total New Afforestation by Product
1980 to 2015

Pulpwood: 57.7%
Sawlogs: 22.9%
Mining Timber: 13.8%
Other: 5.6%

Total – 389,805 ha
New Afforestation by Product 2015

Total – 889 ha
Area Converted Out of Timber Production by Species 1980 to 2015

- Area converted over period: - 91,615 ha
- Average p.a.: - 2,545 ha
Area converted out of Timber Production by Species 2006 to 2015

Area converted over period: - 8 226 ha
Average p.a.: - 823 ha
Total Area Converted out of Timber Production by Species 1980 to 2015

- Pine: 45.8%
- Eucalypts: 27.8%
- Wattle: 23.9%
- Other: 2.5%

Total – 91,615 ha
Net New Afforestation by Species
1980 to 2015

Net new afforestation over period: -298,188 ha
Average p.a.: -8,283 ha
Net New Afforestation by Species
2006 to 2015

Net new afforestation over period: -10,599 ha
Average p.a.: -1,060 ha
Net New Afforestation by Species 1980 to 2015

- Pine: 47.0%
- Eucalypts: 48.7%
- Wattle: 3.8%
- Other: 0.5%

Total – 298,188 ha
Net New Afforestation by Species 2015

Total net new afforestation - 697 ha
Area Converted Out of Timber Production by Region 1980 to 2015

Years

Area converted over period - 91 619 ha
Average p.a. - 2 545 ha
Area Converted Out of Timber Production by Region 2006 to 2015

Area converted over period: - 8,230 ha
Average p.a.: - 823 ha
Total Area Converted out of Timber Production by Region 1980 to 2015

- Mpumalanga & Limpopo: 27.7%
- KZN: 42.3%
- E&W Cape: 30.0%

Total – 91,619 ha
**Net New Afforestation by Region**

**1980 to 2015**

- **North**
- **KZN**
- **Cape**
- **Total**

**Net new afforestation over period**: - 297,489 ha

**Average p.a.**: - 8,264 ha
Net New Afforestation by Region
2006 to 2015

Net new afforestation over period: -10 597 ha
Average p.a.: -1 060 ha
Net New Afforestation by Region
1980 to 2015

Mpumalanga & Limpopo: 7.0%
KZN: 34.8%
W&E Cape: 58.2%

Total – 297 489 ha
Conversion of Plantations out of Production & to Other Species 1980 to 2015

- Net loss to production area over period: -91,619 ha
- Average p.a.: -2,545 ha
Conversion of Plantations out of Production & to Other Species 2006 to 2015

Net loss to production area over period: -8,228 ha
Average p.a.: -823 ha
Total Area Converted out of Production & to Other Species 1980 to 2015

- Pine: -14,246 ha
- Eucalypts: -22,982 ha
- Wattle: -10,303 ha
- Other: -41,494 ha

Net loss to production area over period: -89,025 ha
Average p.a.: -2,473 ha
Area Converted out of Production & to Other Species 2015

Land taken out of timber production - 482 ha
Net Addition to Planted Area by Species
1980 to 2015

Total net addition to production area: - 298 187 ha
Average p.a.: - 8 283 ha
Net Addition to Planted Area by Species
2006 to 2015

Total net addition to production area
- 10,597 ha

Average p.a.
- 1,060 ha
**Total Net Addition to Planted Area by Species 1980 to 2015**

<table>
<thead>
<tr>
<th>Species</th>
<th>Hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pine</td>
<td>103 342</td>
</tr>
<tr>
<td>Eucalyptus</td>
<td>212 185</td>
</tr>
<tr>
<td>Wattle</td>
<td>-23 930</td>
</tr>
<tr>
<td>Other</td>
<td>6 590</td>
</tr>
</tbody>
</table>

**Total net addition to production area**  
- 298 187 ha

**Average p.a.**  
- 8 283 ha
Net Addition (Loss) to Planted Area by Species 2015

Species

Pine  Eucalyptus  Wattle  Other

Hectares

Total net gain in production area  Plus 697 ha
Damage to Plantations by Genera
1980 to 2015

Total area damaged over period - 1 089 632 ha
Average p.a. - 30 268 ha
**Damage to Plantations by Fires 1980 to 2015**

- **Total area damaged over period**: 1 089 632 ha
- **Total area damaged by fire**: 639 072 ha (59%)
- **Total area damaged by other causes**: 450 560 ha (41%)
Damage to Plantations by Fires 2006 to 2015

Total area damaged over period - 409 332 ha
Total area damaged by fire - 280 713 ha (69%)
Total area damaged by other causes - 128 619 ha (31%)
Damage to Plantations by Fires
1980 to 2015

[Bar chart showing the percentage of damage to plantations by fires and other causes from 1980 to 2015]
Damage to Plantations by Genera 2015

- Softwood: 49.9%
- Hardwood: 50.1%

Total – 31 195 ha (2.6% of total planted area)
Damage to Plantations by Cause 2015

Total – 31 195 ha

- Fire: 38.3%
- Other Causes: 61.7%
RSA FMU certificates cover 1.389 million hectares or 18% of African total coverage of 7.6 million hectares.
FSC Certified Forest Areas in Africa as at January 2017

Total FSC certified area in Africa: 7,592,153 ha
FSC Certified Forest Areas in Selected Countries as at January 2017

<table>
<thead>
<tr>
<th>Country</th>
<th>Thousand Hectares</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td>6,196</td>
</tr>
<tr>
<td>Chile</td>
<td>2,313</td>
</tr>
<tr>
<td>RSA</td>
<td>1,389</td>
</tr>
<tr>
<td>NZ</td>
<td>1,238</td>
</tr>
<tr>
<td>Australia</td>
<td>1,235</td>
</tr>
<tr>
<td>Uruguay</td>
<td>973</td>
</tr>
<tr>
<td>China</td>
<td>840</td>
</tr>
<tr>
<td>Argentina</td>
<td>460</td>
</tr>
</tbody>
</table>

Total FSC certified area in world: 194 million ha
FSC Certified Forests by Region as at January 2017

- Europe: 93.724 million ha
- North America: 68.591 million ha
- Latin America: 13.227 million ha
- Asia: 8.322 million ha
- Africa: 7.592 million ha
- Oceania: 2.636 million ha

Total FSC certified area: 194 million ha in 83 countries
FSC Certified Forests by Ownership: as at January 2017

<table>
<thead>
<tr>
<th>Ownership Type</th>
<th>Certified Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Cos</td>
<td>57.8%</td>
</tr>
<tr>
<td>Private Cos (ex SAFCOL)</td>
<td>13.3%</td>
</tr>
<tr>
<td>SAFCOL (KLF)</td>
<td>13.3%</td>
</tr>
<tr>
<td>Individuals / Group</td>
<td>15.5%</td>
</tr>
</tbody>
</table>

Certified Area – 1 358 881 ha
(incl. planted & non-planted areas)
Section 3
The Forest Products Industry
Number of Processing Plants by Type 2015

- Sawmills: 74
- Pole Plants: 34
- Pulp, Paper & Board Mills: 18
- Mining Timber Mills: 14
- Charcoal Plants: 3
- Match Factories: 1

Total number of plants: 144
Intake of Roundwood into Processing Plants
1980 to 2015

Total increase in intake over period - 6.4 million m$^3$ (57%)
Biggest increase that of pulpwood - 7.6 million m$^3$ (181%)
Intake of Roundwood into Processing Plants 2015

- Pulp, Paper & Board Mills: 67.7%
- Sawmills: 24.3%
- Mng. Timber Mills: 3.6%
- Other: 4.3%

Total – 17.5 million m$^3$
Roundwood Intake into Processing Plants by Province & Product 2015

Total – 17.5 million m$^3$
Roundwood Intake into Processing Plants by Province & Product 2015

- KZN: 11.143 million m³
  - Pulpwood: 10.7
  - Other: 0.4
  - Sawlogs: 0.04
- Mpum: 3.770 million m³
  - Pulpwood: 3.6
  - Other: 0.07
  - Sawlogs: 0
- E Cape: 1.176 million m³
  - Pulpwood: 1.13
  - Other: 0.04
  - Sawlogs: 0
- Limpopo: 0.924 million m³
  - Pulpwood: 0.88
  - Other: 0.04
  - Sawlogs: 0
- W Cape: 0.457 million m³
  - Pulpwood: 0.42
  - Other: 0.04
  - Sawlogs: 0

Total – 17.5 million m³
Overall average intake has increased by: 
Average intake of Sawmills has increased by: 
Only average intake of MT Mills has declined – by 

- 163%
- 128%
- 38%
Sales of Certain Products from Processing Plants 1980 to 2015

- Biggest increase that of chips: -1.9 million tons (+349%)
- Biggest decrease that of mining timber: -1.2 million tons (-75%)
Value of Sales from Primary Processing Plants 2015

- Pulp: 52.3%
- Chips: 7.3%
- Lumber: 23.2%
- Panels: 9.5%
- Mng. Timber: 1.7%
- Other: 5.9%

Total – R21.6 billion
Value of Sales from Primary Processing Plants 2015

- Pulp: 11.307 billion Rand
- Lumber: 5.016 billion Rand
- Woodchips: 1.581 billion Rand
- Panels: 2.058 billion Rand
- Other Products: 1.265 billion Rand
- Mining Timber: 0.377 billion Rand

Total – R21.6 billion
Value of Sales from Primary Processing Plants 1980 to 2015

Nominal increase over period: - R20.9 bn (2 999%)
Real increase over period: - R5.8 bn (36%)

In real terms, 2015 value last seen in 1993.
Value of Roundwood Sales from Processing Plants by Product & Province 2015

Total – R21.6 billion
Value of Roundwood Sales from Processing Plants by Product & Province 2012

Total – R21.6 billion

<table>
<thead>
<tr>
<th>Product</th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar Cane</td>
<td>3.047</td>
<td>5.303</td>
<td>7.704</td>
</tr>
<tr>
<td>Wheat</td>
<td>3.324</td>
<td>5.679</td>
<td>7.474</td>
</tr>
<tr>
<td>Forestry</td>
<td>4.957</td>
<td>6.794</td>
<td>9.499</td>
</tr>
<tr>
<td>Maize</td>
<td>7.474</td>
<td>13.486</td>
<td>21.604</td>
</tr>
<tr>
<td>Foreign Products</td>
<td>15.025</td>
<td>21.354</td>
<td>24.561</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Industry</th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sugar</td>
<td>0</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>For. Prods.</td>
<td>2.458</td>
<td>4.133</td>
<td>5.957</td>
</tr>
<tr>
<td>Wheat</td>
<td>2.319</td>
<td>4.133</td>
<td>5.345</td>
</tr>
<tr>
<td>Maize</td>
<td>3.716</td>
<td>5.345</td>
<td>7.761</td>
</tr>
<tr>
<td>Forestry</td>
<td>7.169</td>
<td>11.263</td>
<td>16.801</td>
</tr>
</tbody>
</table>

Thousands Rand per Hectare
Value Addition in Primary Processing Industry 2015

<table>
<thead>
<tr>
<th>Industry</th>
<th>Input (Million Rand)</th>
<th>Output (Million Rand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Industry</td>
<td>9,499</td>
<td>21,604</td>
</tr>
<tr>
<td>Pulp / Paper Mills</td>
<td>6,839</td>
<td>14,946</td>
</tr>
<tr>
<td>Sawmills</td>
<td>2,071</td>
<td>5,016</td>
</tr>
<tr>
<td>Pole Plants</td>
<td>314</td>
<td>1,045</td>
</tr>
<tr>
<td>M. T. Mills</td>
<td>207</td>
<td>377</td>
</tr>
<tr>
<td>Charcoal Plants</td>
<td>49</td>
<td>89</td>
</tr>
</tbody>
</table>

Note: excludes secondary processing (e.g. paper manufacturing)
Value Addition Comparisons in Primary Processing Industry 2015

Output as ratio of Input

- Pole Plants: 3.329
- Sawmills: 2.422
- Total Industry: 2.274
- Pulp / Paper Mills: 2.185
- M. T. Mills: 1.823
- Charcoal Plants: 1.818

Note: Based only on input value of raw fibre (i.e. excludes all other input costs)
Section 4
Contribution to Employment
## Forest Sector Employment – RSA 2015

<table>
<thead>
<tr>
<th>Sub-sector</th>
<th>No. of employees</th>
<th>Total Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Direct</td>
<td>Indirect</td>
</tr>
<tr>
<td>Forestry</td>
<td>60,200</td>
<td>28,000</td>
</tr>
<tr>
<td>Pulp and Paper</td>
<td>13,200</td>
<td>10,800</td>
</tr>
<tr>
<td>Sawmilling</td>
<td>20,000</td>
<td>8,000</td>
</tr>
<tr>
<td>Timber Board</td>
<td>6,000</td>
<td>n/a</td>
</tr>
<tr>
<td>Mining Timber</td>
<td>2,200</td>
<td>n/a</td>
</tr>
<tr>
<td>Other</td>
<td>10,000</td>
<td>n/a</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>111,600</td>
<td>46,800</td>
</tr>
</tbody>
</table>

Direct jobs in Forestry = 60,200
Indirect jobs in Forestry (158,400 less 60,200) = 98,200
Direct Employment in Forestry Industry by Province 2015

- KZN: 47.2%
- Mpumalanga: 9.2%
- E Cape: 2.9%
- W Cape: 3.7%
- Limpopo: 37.0%

Total – 60 200
Direct Employment in Forestry Industry by Region 2015

- **KZN**: 28,430
- **Mpumalanga**: 22,290
- **E. Cape**: 5,520
- **Limpopo**: 2,210
- **W. Cape**: 1,740

Total estimated direct jobs in the industry: 60,200

- **Total Employment**: 2,256,000
- **KZN**: 1,180,000
- **Mpumalanga**: 1,336,000
- **E. Cape**: 1,293,000
- **Limpopo**: 2,257,000

Total estimated direct jobs in Industry – 60,200
Direct Employment in Forestry Industry as % of Those Employed in 2015

- Mpumalanga: 1.39%
- KZN: 1.11%
- E. Cape: 0.40%
- RSA: 0.38%
- Limpopo: 0.17%
- W. Cape: 0.08%

% of Total Employed in Formal Sector

Total employed in RSA – 15 657 000
Indirect Employment Created by Forestry Industry by Province 2015

Total estimated indirect jobs created by Industry in forestry activities and wood processing activities – 98 200
Indirect Employment Created by Forestry Industry as % of Those Employed in 2015

- Mpumalanga: 2.7%
- KZN: 1.8%
- E. Cape: 0.8%
- RSA: 0.6%
- Limpopo: 0.5%
- W. Cape: 0.2%
Direct & Indirect Jobs in & Created by Forestry Industry by Province 2015

Estimated total – 158 400 jobs
Total Employment in Industry as % of Those Employed in Formal Sector 2015

- **Mpumalanga**: 4.58% (Direct: 2.94%, Indirect: 1.64%)
- **KZN**: 2.94% (Direct: 1.87%, Indirect: 1.07%)
- **E. Cape**: 1.21% (Direct: 1.21%, Indirect: 0%)
- **RSA**: 1.02% (Direct: 1.02%, Indirect: 0%)
- **Limpopo**: 0.79% (Direct: 0%, Indirect: 0.79%)
- **W. Cape**: 0.25% (Direct: 0%, Indirect: 0.25%)

% of Total Employed in Formal Sector
Dependents of Those Working in Forestry Industry by Province 2015

Estimated total – 534 000 dependents
Total Number of People Dependent on Forestry Industry by Province 2015

Total Number of People Dependent on Forestry Industry by Province 2015

- **KZN**: 327,200
- **Mpumalanga**: 236,700
- **E. Cape**: 71,100
- **Limpopo**: 34,300
- **W. Cape**: 22,600

Estimated total – 692,000 livelihoods
Estimated % of Population Dependent on Forestry Industry 2015

- Mpumalanga: 5.53% (4 284 000)
- KZN: 3.00% (10 919 000)
- RSA: 1.26% (54 957 000)
- E. Cape: 1.03% (6 916 000)
- Limpopo: 0.60% (5 727 000)
- W. Cape: 0.36% (6 200 000)

Total RSA population – 55.0 million
Section 5
Investment in Sector
Investment in RSA Forestry Industry 2015

Total Investment - R42.7 Billion
Investment in RSA Forestry Industry 2015

Total Investment - R42.7 Billion
Investment in RSA Forestry Industry 2015

- Mpumalanga: 41.8%
- KZN: 35.8%
- E. Cape: 13.2%
- W. Cape: 4.9%
- Limpopo: 4.3%

Total Investment - R42.7 Billion
**Investment in Plantations – By Province 2015**

- **Mpumalanga**: 17.833 Billion Rand
- **KZN**: 15.286 Billion Rand
- **E. Cape**: 5.649 Billion Rand
- **W. Cape**: 2.096 Billion Rand
- **Limpopo**: 1.827 Billion Rand

*Mpumalanga has highest investment - 42% of total*
Investment in Mpumalanga Forestry 2015

Total Investment - R17.8 Billion
Investment in KZN Forestry 2015

Total Investment - R15.3 Billion
Investment in E. Cape Forestry 2015

Total Investment - R5.7 Billion
Investment in W. Cape Forestry 2015

Total Investment - R2.1 Billion

- Pine Long: 96.9%
- Pine Short: 0.5%
- Gum Short: 2.6%
- Gum Long: 0.0%
- Wattle: 0.0%
Investment in Limpopo Forestry 2015

- Pine Long: 63.3%
- Pine Short: 0.0%
- Gum Short: 14.5%
- Gum Long: 22.1%
- Wattle: 0.1%

Total Investment - R1.8 Billion
Investment in Forest Products Sector by Type of Processing Plant 2015

<table>
<thead>
<tr>
<th>Type of Processing Plant</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulp &amp; Board</td>
<td>86.2%</td>
</tr>
<tr>
<td>Sawmills &amp; Veneer</td>
<td>9.4%</td>
</tr>
<tr>
<td>Other</td>
<td>3.4%</td>
</tr>
<tr>
<td>Pole Plants</td>
<td>0.9%</td>
</tr>
<tr>
<td>Mng. Timber</td>
<td>0.1%</td>
</tr>
</tbody>
</table>

Total Book Value of Investments - R20.1 Billion
Investment in Forest Products Sector by Investment Category 2015

- Machinery & Equipment: 84.8%
- Land & Buildings: 12.8%
- Moveable Assets: 1.4%
- Other: 1.1%

Total Book Value of Investments - R20.1 Billion
Section 6

Contribution to GDP
Composition of RSA GDP 2015

Agric: 8.4%
Mining: 2.5%
Other Secondary: 13.3%
Manufacturing: 20.5%
Finance: 37.5%
Other Tertiary: 17.8%

Total GDP – R3 534 Billion (i.e. R3.5 Trillion)
Contribution to GDP 1980 to 2015

Increase in Forestry to Ag GDP over period from 4.5% to 11.1%
Decrease in For. Prod. to Mfg GDP over period from 6.3% to 4.6%
Forest Products vs. Other Manufacturing
GGP per Region 2015

<table>
<thead>
<tr>
<th>Province</th>
<th>Forest Products</th>
<th>Other Manufacturing</th>
</tr>
</thead>
<tbody>
<tr>
<td>KZN</td>
<td>15.1%</td>
<td></td>
</tr>
<tr>
<td>Mupumlanga</td>
<td>14.6%</td>
<td></td>
</tr>
<tr>
<td>Limpopo</td>
<td>12.9%</td>
<td></td>
</tr>
<tr>
<td>RSA</td>
<td>4.9%</td>
<td></td>
</tr>
<tr>
<td>E. Cape</td>
<td>4.1%</td>
<td></td>
</tr>
<tr>
<td>W. Cape</td>
<td>0.8%</td>
<td></td>
</tr>
</tbody>
</table>
Gross Value of Output by Sector & Province 2015

**KZN**
- Forest Products: 5,256
- Forestry: 4,350

**Mupumlanga**
- Forest Products: 1,418
- Forestry: 2,863

**Eastern Cape**
- Forest Products: 1,201
- Forestry: 1,010

**Limpopo**
- Forest Products: 308
- Forestry: 1201

**Western Cape**
- Forest Products: 599
- Forestry: 62

**Million Rands**

0 2,000 4,000 6,000 8,000 10,000 12,000 14,000 16,000
Gross Value of Output by Sector & Province 2015

- **KZN**: 19,293 Million Rands
  - Forestry: 5,000
  - Forest Products: 14,293
- **Mupumlanga**: 7,212
  - Forestry: 3,000
  - Forest Products: 4,212
- **Eastern Cape**: 2,428
  - Forestry: 1,428
  - Forest Products: 1,000
- **Limpopo**: 1,509
  - Forestry: 509
  - Forest Products: 1,000
- **Western Cape**: 661
  - Forestry: 1
  - Forest Products: 660

Million Rands
Forest Industry Contribution to Total GGP per Region - 2015

- **Western Cape**: 0.12%
- **Limpopo**: 0.06%
- **Eastern Cape**: 0.52%
- **Mpumalanga**: 1.06%
- **Average**: 0.61%
- **KZN**: 2.48%

% of Regional GGP
Importance of Forestry and Forest Products Sector has been declining in all Provinces in which it operates over a number of years.
Section 7
Contribution to Foreign Trade
Exports of Forest Products 2014 vs. 2015

- Solid Wood & Other: 2015 - 7.098, 2014 - 6.272

Exports in 2015 R2.939 bn or 13% up on 2014

2014 – R22.8bn
2015 – R25.8bn
Imports of Forest Products
2014 vs. 2015

<table>
<thead>
<tr>
<th>Product</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Solid Wood &amp; Other</td>
<td>1.378</td>
<td>1.286</td>
</tr>
<tr>
<td>Paper</td>
<td>4.786</td>
<td>12.342</td>
</tr>
</tbody>
</table>

Imports in 2015 R1.570 bn or 9.3% up on 2014
**Imports vs. Exports of Forest Products**

**Trade Balance 2014 vs. 2015**

<table>
<thead>
<tr>
<th></th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports</td>
<td>R16.935bn</td>
<td>R18.506bn</td>
</tr>
<tr>
<td>Exports</td>
<td>R18.566bn</td>
<td>R25.763bn</td>
</tr>
<tr>
<td>Trade Balance</td>
<td>R5.890bn</td>
<td>R7.258bn</td>
</tr>
</tbody>
</table>

Trade balance in 2015 R1.4bn or 23% more than in 2014.
Imports vs. Exports of Forest Products
Trade Balance 2013, 2014 & 2015

<table>
<thead>
<tr>
<th>Year</th>
<th>Imports (Billion Rand)</th>
<th>Exports (Billion Rand)</th>
<th>Trade Balance (Billion Rand)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>14.909</td>
<td>18.506</td>
<td>4.182</td>
</tr>
<tr>
<td>2014</td>
<td>16.935</td>
<td>22.825</td>
<td>5.890</td>
</tr>
<tr>
<td>2015</td>
<td>19.091</td>
<td>25.763</td>
<td>7.258</td>
</tr>
</tbody>
</table>
Imports vs. Exports of Forest Products 2015

Positive trade balance in 2015 = R7.258 billion

Exports R25.8bn
Imports R18.5bn

Billion Rand

Exports

Imports

Pulp

Exports 10.262
Imports 1.378

Paper

Exports 8.405
Imports 12.342

Solid Wood & Other

Exports 7.096
Imports 4.786
Forest Product Exports by Product 2015

- Pulp: 39.8%
- Paper: 32.6%
- Solid Wood: 24.7%
- Other: 2.9%

Total – R25.8 billion
Forest Product Imports by Product 2015

- **Pulp**: 0.1%
- **Paper**: 66.7%
- **Solid Wood**: 25.7%
- **Other**: 7.4%

Total – R22.8 billion
Increase in imports: - R17.1 billion (1206%)
Increase in exports: - R23.4 billion (1001%)
Increase in trade balance: - R6.3 billion (686%)
Trade Balance in Forest Products 1992 to 2015 (real)

- Increase in imports: - R12.5 billion (210%)
- Increase in exports: - R15.9 billion (161%)
- Increase in trade balance: - R 3.4 billion (86%)