

# AUSTRALIA'S FOREST AND TIMBER INDUSTRIES

## Resource and Opportunity

### Plantations in Australia “offer the best returns” to investors<sup>1</sup>

#### Executive summary

This document provides information on Australia's current and future timber resource, together with potential investment opportunities associated with this resource. The document is consistent with Strategic Imperative 2 of the *Plantations for Australia, the 2020 Vision*.

Australia's stable political and financial structures, geographical position within the Asia-Pacific region, high technical skills, a high consuming and affluent society, are all features that make Australia consistently ranked among the top countries for international investors. Australia's timber production is relatively cost competitive, possessing particular strengths in the areas of resource, transport and power.

Australia's forest industry is based on sustainably managed native and plantation forests resources. The forest industry generated sales of \$14.1 billion in 1999-2000, accounting for 7.5 per cent of Australia's manufacturing industry and 1 per cent GDP. However, since Federation, Australia's wood production has been unable to meet domestic consumption demands. In 1999-2000 Australian forests only produced 70 per cent of the total wood based products consumed in Australia.

Demand for wood products is expected to continue, with world demand for forest products forecast to increase by 1.2 per cent per annum until at least 2010. Australia's domestic demand is expected to increase by 5 to 15 per cent over the same period. Increased utilisation of current forest resources, combined with the expanding plantation estate, will provide additional product to meet increases in domestic demand and provide export market opportunities.

Australia is well positioned to take advantage of the expanding wood and fibre markets within the Asia-Pacific region. Investments in direct (plantations, processing and manufacturing) or indirect (equities, managed funds, superannuation schemes) forest and wood products industries provide growth opportunities for investors. Australia's strong domestic consumption provides a sound basis for an integrated investment strategy targeting import replacement and international markets.

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<sup>1</sup> Kimio Sato, General Manager, Mitsui & Co Australia, responding to questions about their plantation investments (The Age, 14 February 2000).

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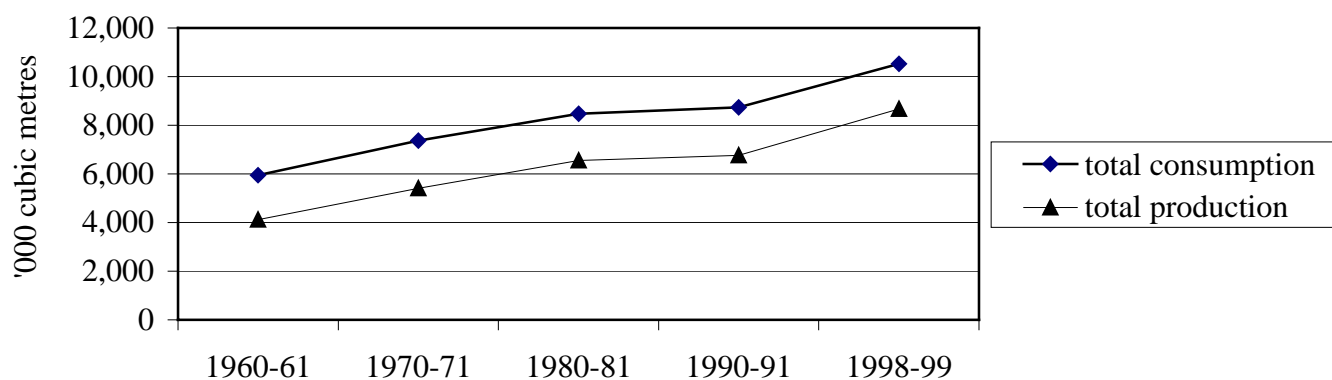
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## THE AUSTRALIAN INDUSTRY

The expanding and maturing plantation sector, combined with a stable and sustainable native timber resource, offers substantial investment opportunities to growers and processors of forest products. During the last 20 years, the total value (sales) of timber products has increased by an average of 5.1 per cent per annum, compared to GDP, which averaged 3.5 per cent per annum. Over the same period, exports have increased 4.9 per cent per annum for sawn-wood and 16.8 per cent per annum for paper and paperboard products.

Australia's growing wood consumption provides a sound base for investments in processing facilities targeting stable domestic and expanding international market opportunities. In 1999-2000 the wood product industries generated sales of \$14.1 billion, accounting for 7.5 per cent of manufacturing output and 1 per cent of GDP<sup>2</sup> (excluding printing, publishing and recorded media, which accounts for 1 per cent of GDP). However, as *Graph 1* illustrates, since 1960, Australia's wood production has been unable to meet domestic consumption demands. Since 1960, Australia's consumption of wood products has increased 56.5 per cent, while production has only increased 47.5 per cent<sup>3</sup>. In 1999-2000 Australian forests produced 70 per cent of the total wood based products consumed in Australia. At the same time over 30 per cent of the total wood and fibre resource remained uncommitted or sold under short-term contracts or spot sales<sup>3</sup>.

**Graph 1: Australia's wood production and consumption, 1960-2000<sup>4</sup>**



While Australia's processing facilities are unable to meet consumer demands for processed wood products, imports continue to increase. In 1999-2000 Australian forests produced 24 million cubic metres of unprocessed wood and fibre products. At the same time an equivalent of 9.6 million cubic metres of raw product was imported at a cost of \$3.8 billion<sup>5</sup>. Australia's domestic demand for forest products is expected to increase by 5 to 15 per cent over the next 10 years<sup>6</sup>. Improved utilisation of existing forest resources, combined with an expanding plantation estate, should provide additional timber products to meet rising domestic demand and consequently reduce imports.

<sup>2</sup> ABS, 2000

<sup>3</sup> derived from ABARE 2001, unpublished.

<sup>4</sup> ABARE 2001, unpublished

<sup>5</sup> ABARE 2000

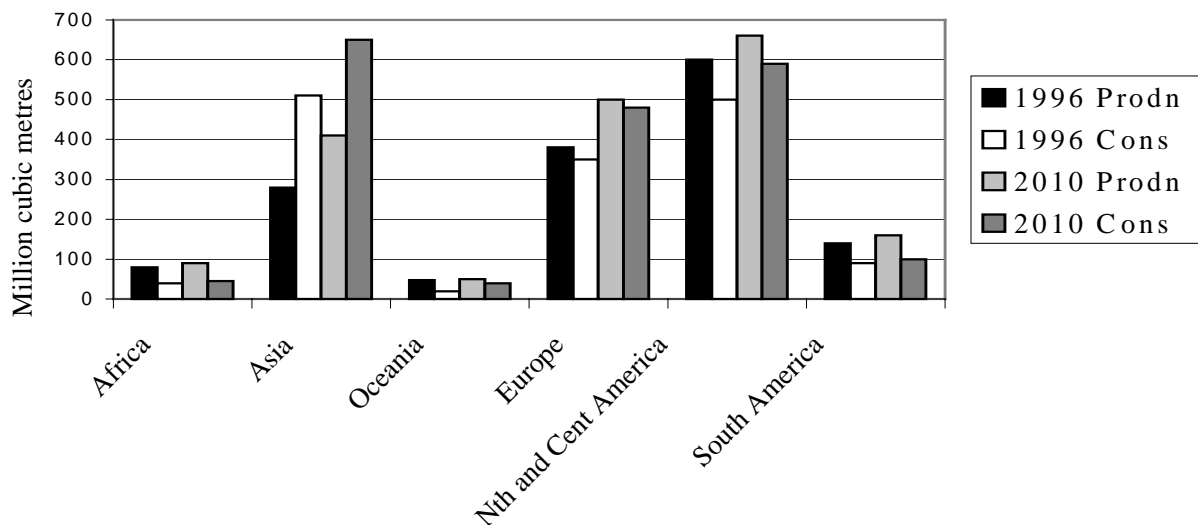
<sup>6</sup> Margules Poyry, 1998

## INTERNATIONAL MARKETS

Current demand for wood products is expected to continue, with world consumption for forest products forecast to increase by 1.2 per cent per annum until at least 2010<sup>7</sup>. Over the same period, the Asia-Pacific region provides significant market potential because:

- the Asian region is forecast to have a wood deficit by 2010 (*Graph 2*); where
  - demand for paper products in the Asia-Pacific region is expected to double; with
  - continuing uncertainty over the ability of Asian-Pacific nations to maintain supply from native forests<sup>8</sup>.
- it is anticipated that there will be a decline in timber supplies from North America as environmental concerns limit production; with
  - sawlog production expected to decline by 10 million cubic metres in 2010<sup>9</sup>; and
  - imports of paper and paperboard products into the United States expected to increase by three million tonnes (to 20 million)<sup>10</sup> over the same period.
- South American timber exports to North America are dramatically increasing:
  - in 1998<sup>11</sup>, 89 per cent of all value added wood products were exported to North America; while
  - there remains uncertainty over long-term commercial supply from Russia.

**Graph 2: World regional timber production and consumption 1996 and 2010<sup>12</sup>**



The European Community, North America (Canada and USA) and Northern Asia (Japan, China and Korea) account for 80 per cent of world forest product trade, with sales to these markets increasing 81 per cent, on average, between 1987 and 1997<sup>13</sup>.

- Imports of wood into the Asia-Pacific region increased 114 per cent between 1987 and 1997<sup>14</sup>:
  - Japan is the largest importer of wood in the Asia-Pacific region and imported over \$19 billion in 2000<sup>15</sup>;
  - Korea, the fifth largest Asia-Pacific market, imports over 80 per cent of its wood products<sup>16</sup>.

<sup>7</sup> Jaakko Poyry May 2000

<sup>8</sup> FAO 2000

<sup>9</sup> IIASA 2001

<sup>10</sup> RPA, 2000

<sup>11</sup> Flynn, 1999

<sup>12</sup> FAO 2000

<sup>13</sup> Robert Flynn, 1999

<sup>14</sup> Robert Flynn, 1999

<sup>15</sup> MAFF May 16 2001

In general, consumption of timber products is a reflection of improvements in regional living standards and disposable income. Forecasts of European and North American consumption and production of wood products shows these markets remaining relatively stable. However, the Asian-Pacific region's improved economic development is expected to significantly increase the demand for forest products and, as shown in *Graph 2*, by 2010 net imports may exceed 200 million tonnes<sup>17</sup>. It is anticipated that the majority of imports will be in value-added products (pulp and paper, and secondary processed wood products). Australia's wood export performance in 1999-2000 reflects these trends, with exports of printing and writing paper increasing by over 100 per cent in volume and by 83 per cent in value in the last two years<sup>18</sup>.

### **Sawn-timber**

World demand for sawn-timber continues to increase, with the majority of production from softwood forests. The Asian-Pacific region is expected to remain a net importer of softwoods, and represents 70 per cent of the global sawn hardwood market<sup>19</sup>. Major factors contributing to regional demand include:

- Japanese housing is the largest single consumer of sawn timber in the world:
  - the value of sawn-wood imports into Japan nearly doubled in value from 1989 to 1997; with
  - 1.2 million housing starts in 1999; with
  - houses, on average, replaced every 20-25 years<sup>20</sup>.
- Korea imports over 80 per cent of its wood and timber products:
  - housing being the primary driver for sawn softwood consumption<sup>21</sup>.
- United States softwood production is expected to remain limited until at least 2010<sup>22</sup>.

### **Secondary Processed Wood Products**

World trade in secondary processed wood products (SPWP<sup>23</sup>) is expanding rapidly, while primary-processed wood product trade remains relatively stable. The United States and the European Union are the major producers, importers and exporters of these products with furniture the single most traded product. SPWP production is a reflection of the desire of many governments and wood product producers to maximise value-added processing while minimising imports. The vertical integration of primary and secondary processing is seen as an important structural change in the forest products sector, and this trend is most prominent in tropical countries<sup>24</sup>.

The world furniture trade is significant. In 1995 world trade in furniture exceeded US\$89 billion<sup>25</sup>:

- The United States imported over US\$5.9 billion in furniture products in 1998<sup>26</sup>;
- Italy exported over US\$5 billion in furniture products in 1998; and
- Malaysia increased furniture exports from RM120 million in 1988 to RM2 billion in 1996.

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<sup>16</sup> CITRAFOR, 2000

<sup>17</sup> Jakko Poyry, 2000

<sup>18</sup> ABARE 2000

<sup>19</sup> Margules Poyry 1998

<sup>20</sup> RPA 2000

<sup>21</sup> CITRAFOR 2000

<sup>22</sup> RPA 2000

<sup>23</sup> SPWP – wood products resulting from further transformation of sawn-wood and other wood-based material, excluding further processed panels sold as such (ECE/FAO 2000).

<sup>24</sup> ECE/FAO 2000

<sup>25</sup> FAO 2000, Dec

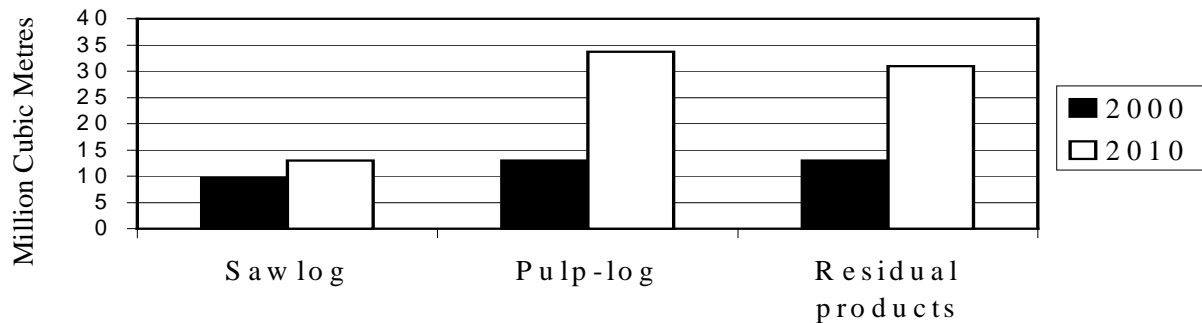
<sup>26</sup> FAO 2000, Dec

## AUSTRALIA'S FOREST AND WOOD RESOURCE

Australian production forests and plantations are sustainably managed to maintain a balance between environmental, social and economic criteria. Harvesting from native forests and plantations produced over 24 million cubic metres of logs in 1999-2000<sup>27</sup>. Government owned and/or managed land provides logs for nearly 50 per cent of hardwood mills and 65 per cent of softwood mills<sup>28</sup>.

The expanding plantation estate is expected to raise the volume of timber available to levels that could supply a world-scale pulp and paper processing facility in regional Australia by 2010. The total volume of available wood is expected to exceed 75 million cubic metres by the year 2010 (*Graph 4*), with significant volumes of low value fibre available for processing.

Graph 4: Australian timber production 2000 and 2010<sup>29</sup>



### Native Forests

Australia has a land area of almost 769 million hectares, of which 20 per cent (150 million hectares) is native forest:

- 70 per cent of native forests are on private land but account for only around 29 per cent of wood production in 1999-2000<sup>30</sup>;
- 13 million hectares are classified as production forests<sup>31</sup>; and
- less than 1 per cent (110,000 hectares), on average, is harvested for timber in any one year.<sup>32</sup>

Nearly 50 per cent of all native forest products harvested in 1999-2000 were sourced from Tasmania, and nearly 25 per cent from Victoria (*Graph 5*). These two States have entered into *Regional Forest Agreements* (RFA) with the Commonwealth Government, and this process provides long term resource security to the native timber industry.

Since the implementation of the RFA process, management regimes adopted by industry ensure sustainable harvesting and long term continuance of supply; allowing:

- hardwood mills to undertake large-scale capital investments; and so
- increases the production of value-added timber products, through kiln dried production and increased market access<sup>33</sup>.

<sup>27</sup> ABARE, 1999

<sup>28</sup> ABARE, 2000

<sup>29</sup> ABARE, 1999

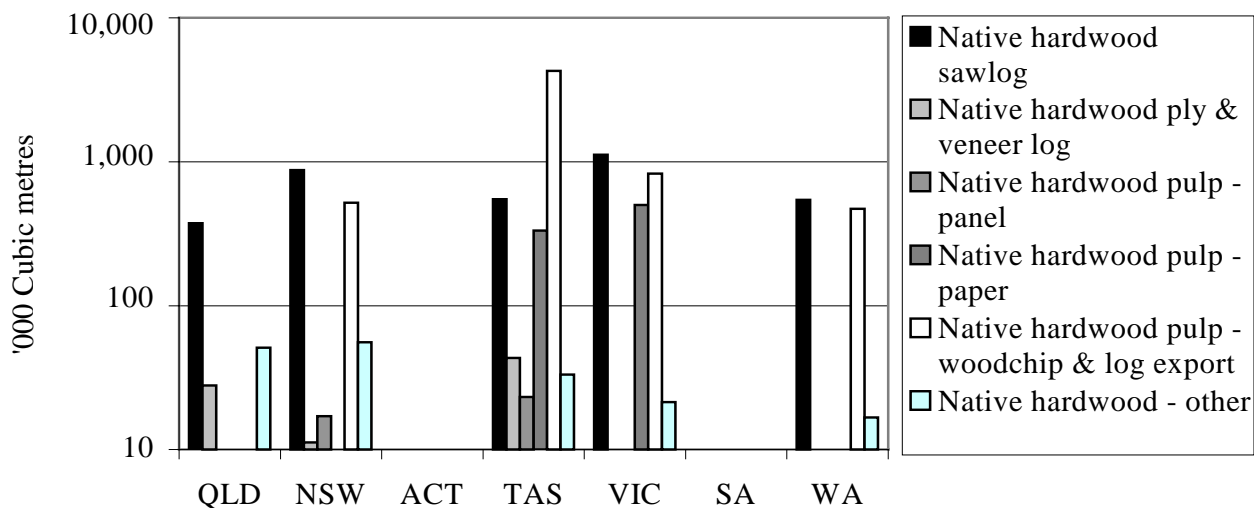
<sup>30</sup> ABARE, 2001

<sup>31</sup> Forests available for commercial harvesting activity.

<sup>32</sup> BRS, 1998

<sup>33</sup> Gooding 2000

**Graph 5: Wood production from Australian Native Forests 1999-2000<sup>34</sup>**



### Plantations

Australia has 19 million hectares of land suited to plantation establishment, of which 2.9 million hectares is considered economically viable for timber production and competitive when compared to other land use<sup>35</sup>.

There is currently nearly 1.5 million hectares of industrial plantations established in Australia<sup>36</sup>. Table 1 shows the area of hardwood and softwood plantations established within each State within Australia. Nearly 60 per cent of all plantations are located within the three major timber growing regions (South-West Western Australia, The Green triangle, and Tasmania), as identified on Map 1.

- Currently 50 per cent of the plantation estate is privately owned and 50 per cent publicly owned, with major expansion activity privately funded.
- Plantation establishment rates have rapidly expanded since 1995, with:
  - annual plantation establishment increasing from 30,000 hectares in 1995 to over 125,000 hectares in 2000<sup>37</sup>; and
  - anticipated levels of investments (mainly in hardwood plantations) are expected to stabilise at about 60-80,000 hectares per year; while
  - the expansion of the softwood plantation is expected to stabilise at about 10,000 hectares per year<sup>38</sup>.

<sup>34</sup> ABARE, 2001 unpublished

<sup>35</sup> BRS Dec 1998

<sup>36</sup> BRS 2001

<sup>37</sup> BRS 2001

<sup>38</sup> BRS 1999

**Table 1: Total plantation area (hectares) established and prepared under hardwood and softwood\*, September 2000<sup>39</sup>**

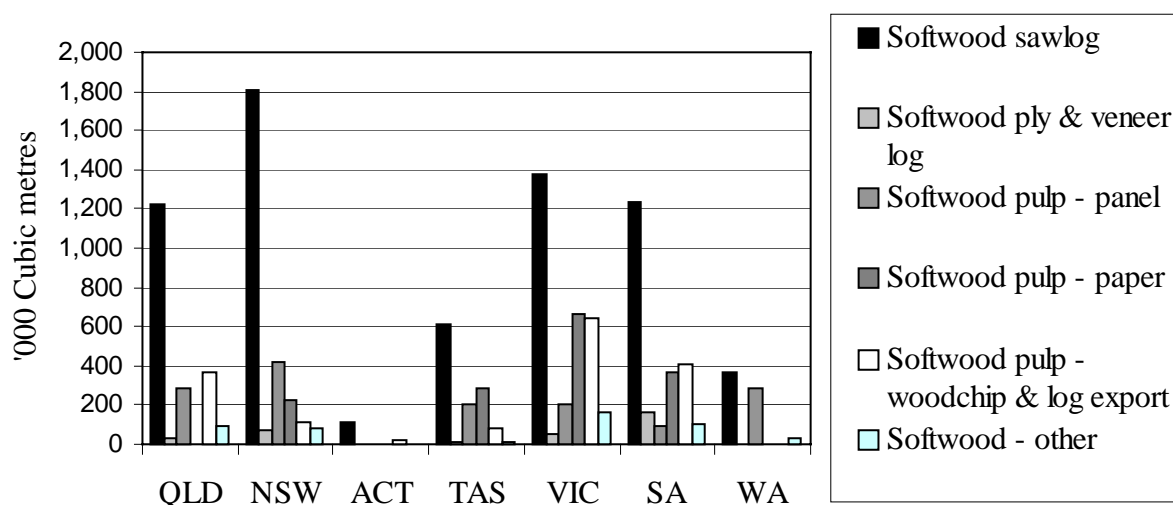
State	Hardwood	Softwood
NSW	44,626	270,672
ACT	194	14,585
VIC	101,453	215,110
TAS	109,567	75,630
QLD	9,435	178,620
NT	1,649	5,235
WA	214,993	98,441
SA	20,703	113,871
<b>TOTAL</b>	<b>502,620</b>	<b>972,164</b>
<b>COMBINED TOTAL</b>		<b>1,474,784</b>

\* These figures do not include 8,549 hectares of mixed and 1,411 hectares of unknown species.

### Softwood

The relatively even age class distribution of the softwood plantation estate provides for long term stability of supply to timber processors and suppliers. In 1999-2000 nearly 12 million cubic metres of wood was produced from softwood plantations with sawlog the dominant use of the resource (*Graph 6*)<sup>40</sup>.

**Graph 6: Australian softwood plantation production by product 1999-2000 (cubic metres)**



Excess sawlog availability is expected to be limited, with current mills able to process the majority of the future resource. However, Australia exported over one million cubic metres of low-grade softwood roundwood logs in 1999-2000 and over 2.3 million green tonnes of woodchip. Korea is Australia's largest market for unprocessed logs, while Japan dominates the woodchip export market. The Green Triangle region (which includes Western Victoria and Eastern South Australia) and Queensland supplied the majority (87 per cent) of these exports, which are generally volume driven, and sold under short-term contracts.

<sup>39</sup> BRS 2001

<sup>40</sup> ABARE, 2001 unpublished

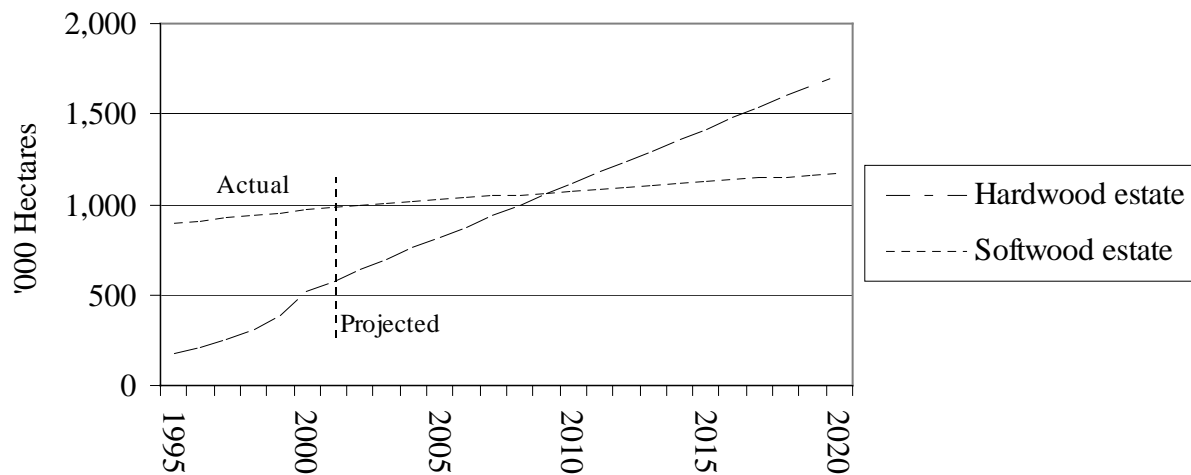


## Hardwood

Hardwood plantations constitute 33 per cent of the plantation estate and by the year 2020 may be as high as 60 per cent of the total area. *Graph 7* shows the trends in plantation plantings, with a balance being achieved within the next ten years. These plantations:

- account for 80 per cent of all new plantings since 1995;
- are concentrated within The Greater Green Triangle, SE Western Australia and Tasmania (Map 1);
- have been funded predominantly by the private sector; with
  - Australian afforestation investment companies dominating establishment operations; and
  - of these companies, the top seven have total combined assets exceeding of \$2 billion<sup>41</sup>;
- provide the basis for a stable and dynamic industry;
- are now on a scale which could provide the resource required for a world scale pulp and paper processing facility;
- it is expected that by 2020 each of the three main growth regions will have a plantation base of 230-240,000 hectares, harvesting in excess of 4 million green tonnes of timber per annum each.

**Graph 7: Plantation estate from 1995 to 2020<sup>42</sup>.**



Note: 2001 to 2020 rates are based on anticipated annual plantings of 60,000 hectares for hardwood and 10,000 hectares for softwood per annum.

<sup>41</sup> Ausnewz

<sup>42</sup> BRS 1999

## AUSTRALIA'S COMPETITIVENESS ADVANTAGE

Australia's stable political and financial structures, geographical position within the Asia-Pacific region, high technical skills, affluent and high consumer society, are all features which make Australia consistently ranked among the top countries for international investors.

Australia's timber production is cost competitive, possessing particular strengths in the areas of resource, transport and power. This view supports a plantation investment "Attractiveness Index" which placed Australia 11th out of 66 countries; ahead of New Zealand (12), Argentina (13), Chile (16), Uruguay (18), Brazil (20) and South Africa (22)<sup>43</sup>. Australia's net wood costs are relatively low due to:

- the uniform nature and management of the resource;
  - providing high recovery rates
- a highly mechanised harvesting and processing industry; which
  - provides lower labour costs
  - higher efficiency
  - greater capacity and flexibility than other harvesting operations
- high grade national, state and regional infrastructure; including
  - an integrated and modern national and regional road transport system
  - a competitive rail network
  - 11 deep-water ports
- a highly trained and educated workforce; with
  - 61,000 people employed in processing
  - 14,000 in growing and harvesting and over
  - 2,500 professionally trained foresters
- close proximity of the resource to mills;
- diversified processing facilities; and
- specialised, high value, kiln dried processing capacity.

Australia's commercially competitive environment has led to significant foreign capital being invested in the timber industry. International investment in Australia's forest industry increased from \$550 million in 1992-93 to over \$1,500 million in 1998-99<sup>44</sup>. By early 2001, foreign ownership of Australia's processing and plantation companies exceeded \$3.7 billion (Table 2). These global forestry and timber companies anticipate solid growth for the Australian sector, which allow vertically integrated plantation owners and processors to maintain target rates of return on net assets between 9 and 17 per cent per annum<sup>45</sup>.

**Table 2: Investment companies within Australia, 1997-1999**

Investment Type	Number entities	Investment
Plantation	2 American 4 Asian + private prospectus investment companies)	>\$600 million >\$200 million >\$1,000 million
Processing	4 (1 domestic, 1 European, 2 American)	> \$1.3 billion
Integrated	3 (1 domestic, 1 New Zealand, 1 American)	> \$1.6 billion

<sup>43</sup> Chandler 1998

<sup>44</sup> Invest Australia, 2000

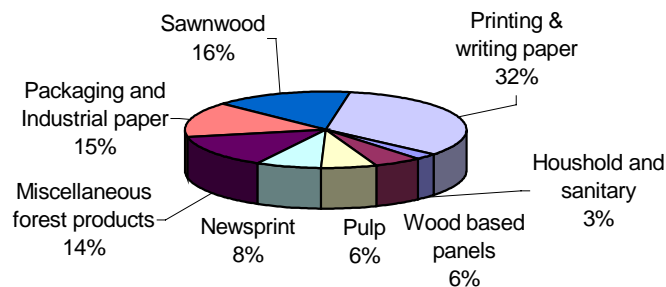
<sup>45</sup> Weyerhaeuser

### Import replacement strategy

Any successful investment in timber processing within Australia should contain an integrated import replacement strategy with a strong domestic and international market focus. The strength of the Australian domestic wood and paper market offers significant commercial advantages to processors, providing opportunities to maintain stable sales within diverse and fluctuating markets.

Australia imported \$3.8 billion of forest products in 1999-2000, 16 per cent more than in 1998-99. Imports were dominated by paper and paperboard (55 per cent) and sawn-wood (16 per cent) by value<sup>46</sup> (as shown in *Graph 8*). At the same time forest products exports increased 22 per cent to \$1,580 million. However, as shown in *Graph 9*, Australia's exports remain dominated by high volume, low value products. For example, the value of pulp imports was one third that of exported woodchips, however, the volume of woodchips exported was nearly 17 times greater than the volume of imported pulp.

**Graph 8: Australia's imports of wood based products 1999-2000<sup>47</sup>**



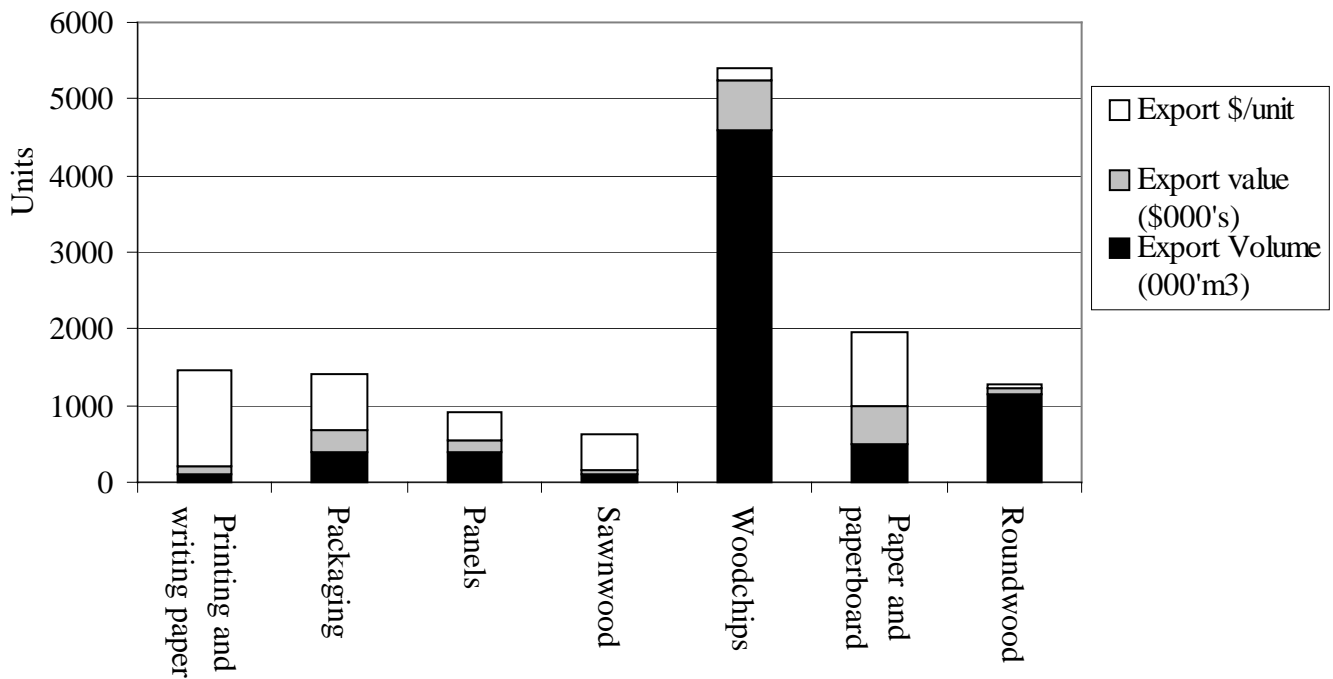
Consequently, Australia provides strong investment opportunities for timber processors through:

- current and increasing future domestic consumption;
- Australia's close proximity to growing Asian markets; and
- Development of a resource capable of:
  - regionally supplying at least 2 million tonnes of wood and fibre per annum on a sustainable basis
  - replacing significant amounts of domestically consumed imports
  - vertically integrating various processing facilities and
  - producing a range of very high value paper products

<sup>46</sup> ABARE 2000

<sup>47</sup> ABARE 2000

**Graph 9: Relative weighting of exported wood products 1999-2000<sup>48</sup>**



## Transport

### Shipping:

Extensive restructuring in Australia's shipping and transport industry has resulted in a significant reduction in costs and wharf-side delays<sup>49</sup>:

- Australian port loading/unloading rates are now comparable to most overseas ports;
  - the five-port average crane rate continues to increase and
  - is currently 25.4 containers per hour
- Over the past five years, ship charges have fallen by:
  - an average of nearly 23 per cent for Australia's five major ports while
  - stevedoring charges have decreased by 11 per cent on average

### Roads:

The majority of the timber resource is within 100 kilometres of a processing mill, with the majority of these mills close to major regional centres and markets. The National, State and regional road networks are extensive and well maintained.

- Australia has over 800,000 kilometres of public roads; of which
  - 37.5 per cent are sealed
  - 32.5 per cent have improved surfaces (e.g. gravel)
- Australian Governments spent \$7 billion in 1997-98 on maintenance and improvements<sup>50</sup>.

<sup>48</sup> ABARE 2000

<sup>49</sup> Waterline 2000

<sup>50</sup> Austroads 2000

## Energy

Modern processing facilities consume large amounts of energy (15-20 per cent of all costs). Efficient and cost effective production requires that power for these facilities must be delivered economically and consistently over time.

Australia's regional electricity prices vary, however they remain highly competitive when compared to other timber producing countries, with electricity costs in Victoria half that of Brazil (*Graph 10*).

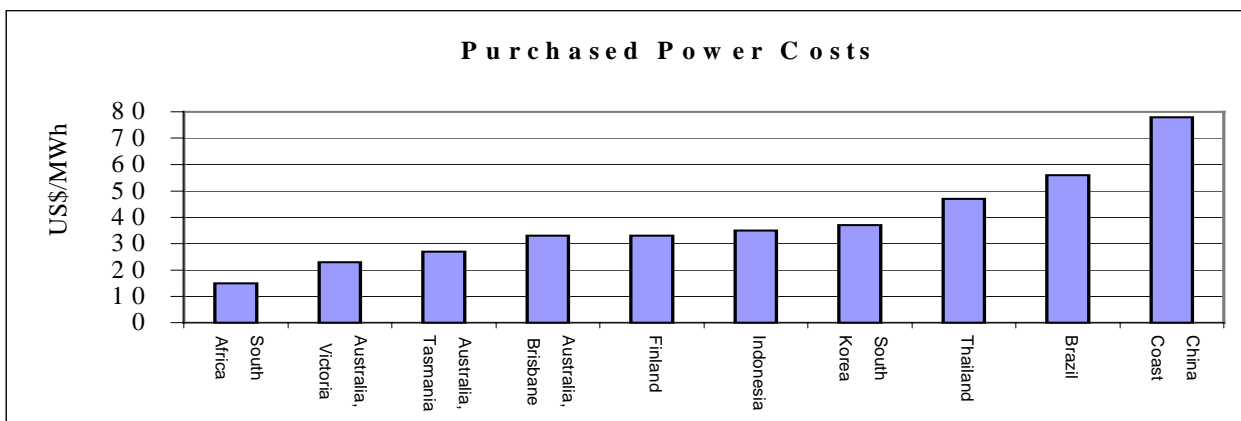
Australia is developing a highly competitive environment within the national electricity grid system that:

- should result in lower costs through:
  - increased competition between power distributors and suppliers
  - significant investments by private companies
  - a divestment of state ownership of power authorities

In addition to coal and hydro-electrical power sources, Australia has extensive reserves of Natural Gas. Australian companies are rapidly expanding the national gas pipeline system, which makes Australia:

- one of the most competitive suppliers of gas within the OECD<sup>51</sup>;
- a long term, reliable and consistent supplier of gas; providing
- a stable and competitive international pricing structure.

**Graph 10: Comparison costs electricity prices<sup>52</sup>**



<sup>51</sup> Kolednik 2000

<sup>52</sup> Jaakko Poyry 2000

## OPPORTUNITIES FOR INVESTMENT

There are direct and indirect investment opportunities in Australia's forest and wood products industries. Investors can choose between plantations, processing and manufacturing or equities, managed funds, and superannuation schemes.

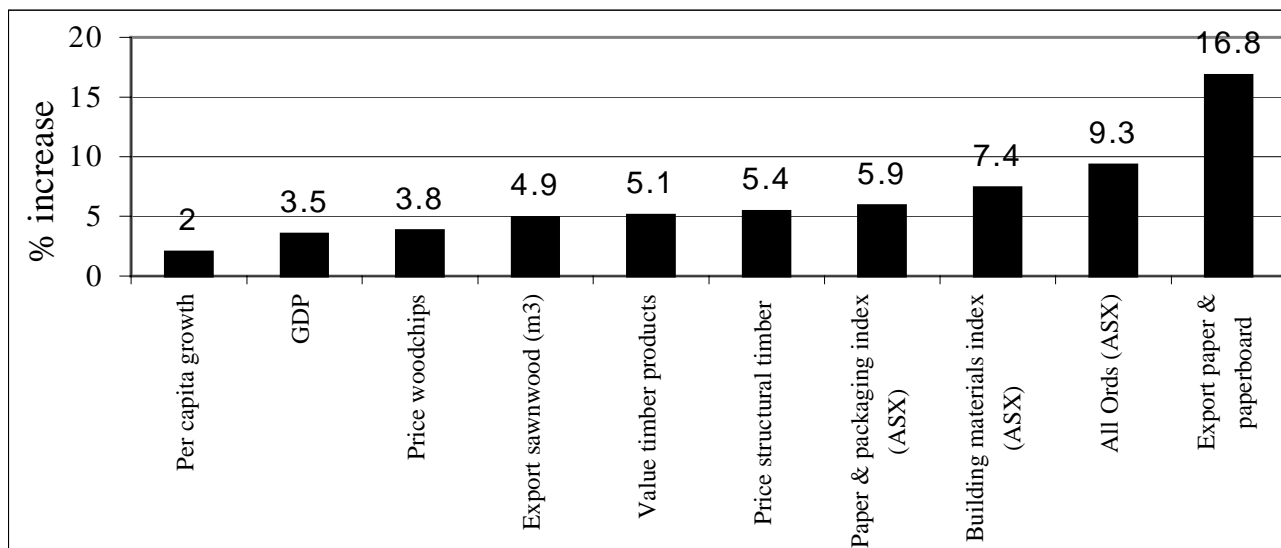
### Equities

Equity investments can be through Australian Stock Exchange (ASX) listed or unlisted (restricted) companies. Listed companies vary from small plantation managers, through to large international processors. The size (capitalisation) of listed companies, while dependent on market forces, are quite diverse. Information on listed companies can be found on the ASX web site<sup>53</sup>. Generally forest product operations fall into three general categories, with companies capitalisation varying significantly in each;

- plantation growers (\$30-\$280 million),
- processors (\$160-\$4,200 million) and
- building suppliers (\$72-\$6,000 million).

The ASX and the Australian Bureau of Statistics data show that Australian timber resource companies have historically offered stable and relatively high rates of returns. A comparison of the average annual difference between several benchmarks (per capita growth, Gross Domestic Product (GDP) and ASX All Ordinary) demonstrates that timber companies provide real growth for investors. Over the last 20 years GDP and woodchip have only increased, on average, less than 4 per cent, the value of structural timber has increased, on average, 5.4 per cent while the value of exports of paper and paperboard have increased 16.8 per cent (*Graph 11*).

**Graph 11: 20 year average annual indices**



The trading in timber equities and managed funds in North American markets is considered common, with individual funds having over US\$3 billion invested in timber companies<sup>54</sup>. Research shows that the “addition of timberland to a portfolio ... substantially reduce its volatility”<sup>55</sup>. The lower risk is due to the counter cyclical nature of timber products in the United States (which is also true for Australia). As the economy and other stocks fall, the return on timber investments increases.

<sup>53</sup> [www.asx.com.au](http://www.asx.com.au), 19/5/01

<sup>54</sup> HTRG, 2000

<sup>55</sup> HTRG, 2000

Ethical investments generally include forest and wood product companies. Ethical investment funds expand the choices available to investors and are attractive to investors who would not otherwise be active in the market and offers substantial and personal reward for investors. Ethical investment managers often manage significant funds on behalf of investors, with over US\$2 trillion within the United States, 3 billion pounds in the United Kingdom, and AUS\$1 billion in Australia<sup>56</sup> invested in such funds.

### **Direct**

Direct investments offer the potential for high and stable return, and can be made through ownership in forest resource, and/or wood processing facilities. Forest ownership provides resource security and allows owners to influence the quality of timber being produced and so maximise market opportunities and profits. Wood processing investments could be geared to take advantage of Australia's continuing large domestic wood and paper demand, import replacement strategies, and regional export markets. Environmental credits may also provide future returns to investors, while contributing to improved land management strategies.

### **Forest ownership**

Resource security is an important factor in any commodity business with an emphasis on consistent quantity and quality over time. The reliance by international companies on high yield/low cost native forests for wood and fibre is changing. In many Asian-Pacific economies natural resource availability is reducing, resulting in changes to wood volumes being available to processors as various countries:

- adopt sustainable management practices for natural forest resources;
- improve recovery practices;
- establish plantation resources; and
- adopt environmentally efficient technology.

In response to these changes, large processing companies are developing international strategies designed to provide stable and consistent volumes of high quality raw materials. To secure long-term timber supplies, some overseas companies are directly, or in partnership, entering into plantation establishment agreements in Australia.

Australians, in response to forecasted improvements in timber prices and increasing domestic and international demand for timber, have invested in many prospectus based managed plantations. Within these schemes professional managers usually supervise all operations, while ownership of the plantation remains with the individual investor. Over 500,000 hectares of plantation forest have been established under these schemes, with investments exceeding \$2 billion.

Plantation ownership also offers the ability to trade in environmental credits, an emerging market, gaining international support. Carbon credits are the most widely known within this market. Carbon credit investments may provide an early cash flow from carbon credits and a long-term yield from timber products. Several international investments within Australia have been made on the basis of obtaining carbon credits.

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<sup>56</sup> Their 2000

### Processing Industry Investment Opportunities

Australia exported 4.6 million dry tonnes of woodchips in 1999-2000 (9.4 million green tonnes), valued at \$646 million. When the newly established plantations mature the available resource, within each of the growth regions, could supply a world-scale kraft pulp and paper mill (with at least a 750,000 tonne capacity) and while such a single mill would require about US\$1 billion to build it

- could supply both domestic and international markets; and
- could replace a major portion of the paper and pulp products currently imported at a cost of over \$2.2 billion per annum.

Opportunities in both international and domestic markets exist for increased processing within the pulp and paper sector in Australia. In the 1999-2000 financial year, Australia imported about \$3.8 billion worth of forest products, with:

- paper and paperboard products accounting for over 50 per cent of imports of all products; and
- printing and writing paper imports exceeding \$1.2 billion, while exports were \$121 million (an increase by volume of 61 per cent).

Table 3 illustrates the current domestic potential for a range of paper products which directly rely on a Bleached Hardwood Kraft Paper (BHKP) resource. It is clear from Table 3 that without additional domestic capacity Australia is expected to significantly increase imports of these products. By 2010, the import of coated woodfree paper is expected to increase by nearly 65 per cent to over 360,000 tonnes per annum, while uncoated woodfree paper consumption is expected to exceed 550,000 tonnes per annum<sup>57</sup>.

**Table 3: Paper processing requirements and demands (1998-99)<sup>58</sup>**

Product	Resource required	Domestic consumption (t)	Domestic production (t)	Imports (t)	Current imports (per cent)	Investment benefits
BHKP	2,000,000t/a	180,000	0	180,000	100	High
Printing & writing papers	BHKP	1,155,000	497,000	718,000	62	High
Uncoated woodfree	BHKP	422,000	311,000	168,000	40	Med
Coated woodfree	BHKP	281,000	55,000	226,000	80	High

<sup>57</sup> Margules Poyry 1998

<sup>58</sup> ABARE 2000



## Sawn-timber

Australia's sawn-timber production increased 18 per cent over the last decade, with timber processing mills (940 in total) producing wood products with a total value of about \$2 billion in 1999-2000<sup>59</sup>. The mill door value of sawlogs delivered to these mills was \$711 million. In 1999-2000 the total sawn-wood output exceeded four million cubic metres with the majority of these products sold domestically.

In the financial year 1999-2000, Australia's consumption of sawn-wood increased by 11 per cent to 4,808 million cubic metres, with:

- domestic production increasing only 9 per cent, or 3,928 million cubic metres; and
- imports increasing in volume by 25 per cent to nearly 1 million cubic metres; with
  - their value increasing 31 per cent (\$548 million), which reflected Australia's high construction activity for that year
- exports increased by 75 per cent or 90,000 cubic metres, valued at \$70 million.

Australia is expected to produce a surplus of sawlogs by 2010. The majority of this timber is likely to be processed and consumed domestically, although the size of the surplus will depend on the quality of the timber and whether the industry can:

- replace imports;
- replace alternative building material;
- increase consumption;
- maintain and expand export opportunities.

While Australia's sawn-wood sector is in a transitional stage these changes may provide new opportunities for mills to diversify and produce high value products as:

- large-scale processing facilities change to reflect market forces; with
  - softwood production focused on the building sector
  - hardwood mills changing focus from quantity to quality,
- competitive forces and changes in resource availability are resulting in:
  - softwood processors specialising and/or increasing capacity; while
  - hardwood mills are investing in value adding technology, reducing reliance on green structural timber and developing speciality products based on feature, strength and durability.

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<sup>59</sup> ABARE 2000

### GOVERNMENT POLICY

Australia has a well-established mature forest industry, historically resourced from native hardwood and plantation softwood forests.

The Federal Government supports both native and plantation forest sectors, playing an active role in the development and expansion of a competitive, profitable and sustainable industry. Legislative and policy initiatives have led to increased confidence and stability within the industry. Government support has encouraged investments in value-adding processing and the development of new and more profitable markets. Policy initiatives include:

- entering into *Regional Forest Agreements* with State Governments that provide 20-year resource security agreements for the native hardwood industry with emphasis on value adding processing through the *Forest Industry Structural Adjustment Program*;
- jointly implementing the *2020 Vision* with industry, State and local governments to create a national plantation estate of over 3 million hectares by the year 2020;
- launching the *Action Agenda for the Forest and Wood Products Industry*: providing an environment within which sustainable competitive advantages can be pursued by the industry;
- enhancing the timber industry's competitiveness through changes to Australia's tax system. The introduction of the Goods and Services Tax, the reduction of private and company tax rates, and improvements to the Capital Gains Tax have provided an equitable framework within which agricultural enterprises, including forestry, can carry out their business;
- supporting research and development programs through the Commonwealth Scientific and Industrial Research Organisation (CSIRO), the Forest and Wood Products Research and Development Corporation (FWPRDC) and the creation and funding of Cooperative Research Centres (CRCs);
- providing funding of initiatives to promote regional development, including the \$1.2 billion *Roads to Recovery Program*, the *Farm Innovation Program*, and the *Regional Solutions Program*;
- assisting the development of an *Australian Forestry Standard* to provide a basis for a credible and verifiable measure of sustainable forest management for wood production from individual forest ownerships in accordance with accepted Australian and international practices;
- supporting industry initiatives designed to enhance the reputation of, and create greater confidence within, the plantation industry, including the development of a *Code of Practice* for tree investment companies and the development of an Australian forests valuation standard.

### RESEARCH AND DEVELOPMENT

Research and Development will underpin the global competitive performance of Australia's forest and wood products industries. Federal and State Governments, in partnership with industry, have significantly funded research and development programs aimed at facilitating sustainable forest management, improved wood and fibre performance, increased efficiency and environmental performance of wood and paper processing and increased value adding for wood and paper products.

The following organisations are at the forefront of forest and wood product research and development in Australia.

#### **The Commonwealth Scientific and Industrial Research Organisation (CSIRO)<sup>60</sup>**

CSIRO is an independent statutory authority constituted and operating under the provisions of the *Science and Industry Research Act 1949* and the *Commonwealth Authorities and Companies Act 1997*.

CSIRO is one of the world's largest and most diverse scientific research institutions. It has an operating budget of nearly \$900 million and a staff of over 6,000. CSIRO's research is planned and resourced on a sectoral basis. The organisation has defined 22 sectors, including the Forests, Wood and Paper Business Unit.

In partnership with industry, this Unit's objective is to increase the competitiveness of all stages of the value chain from sustainable management of native forests and plantations, to tree harvesting and log transportation, wood processing into building materials and furniture, pulp and paper, and recycled fibre processing and products.

#### **Cooperative Research Centres (CRC)<sup>61</sup>**

CRCs are established under the Commonwealth Government's Cooperative Research Centre Program. They are collaborative ventures between Australian companies, Federal and State Government enterprises, Universities and the CSIRO. CRCs are long-term collaborative arrangements that support research and development and education activities which achieve real outcomes of national economic and social significance. Cooperatively, \$6.3 billion has been invested in CRC programs since 1990. There are currently 65 CRCs, of which three focus of the forest and wood products industry.

- **The CRC for Sustainable Production Forestry** was established in 1997. The centre conducts research and training for those organisations in the business of growing trees and its objectives are directed towards ensuring the long-term viability of Australia's forestry industry through high quality, relevant research in sustainable plantation forestry.

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<sup>60</sup> <http://www.csiro.gov.au/>

<sup>61</sup> <http://www.dist.gov.au/crc/centres/index.html>

- **CRC for Functional Communication Surfaces** was established in 2001 and its focus is on developing new products and manufacturing processes in the rapidly expanding area of enhanced communication surfaces for the "knowledge economy". The centre will research products for use in the area of high value print media, advanced writable and re-writable substrates for communication printing, packaging and supply chain industries, and new paper coating and printing technologies.
- **CRC for Innovative Wood Manufacturing** was also established in 2001. The CRC research program focuses on developing microwave technology for use on wood product manufacturing, surface engineering and improved timber adhesives, the relief of growth stresses in logs and sawn timber and improvements in wood permeability for infusion with preservatives and other additives.

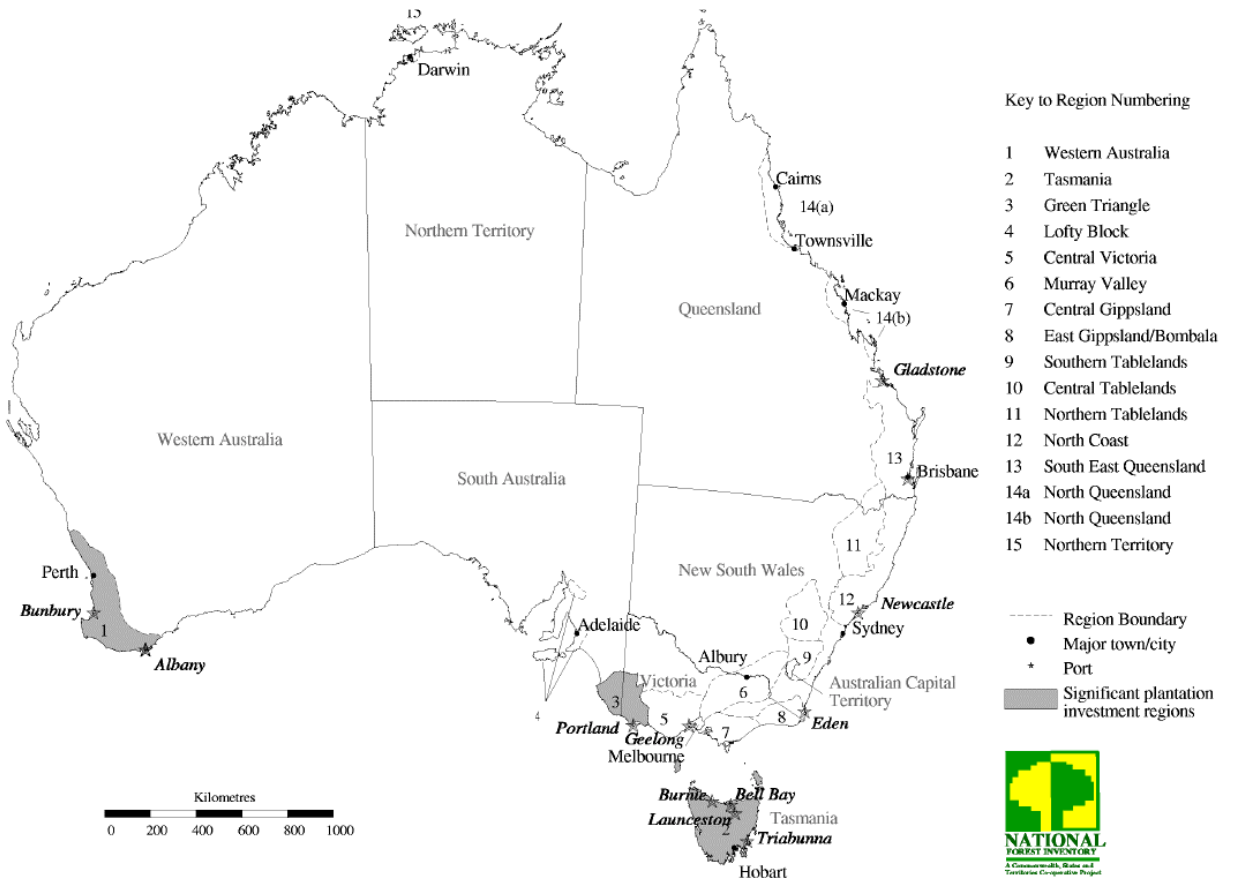
### **The Forest and Wood Products Research and Development Corporation (FWPRDC)<sup>62</sup>**

FWPRDC was established on 1 January 1994 under the *Primary Industries and Energy Research and Development Act 1989*. It is jointly funded by the Federal Government and the forest and wood products industry. The FWPRDC was established to invest in effective, coordinated research which has potential to increase profitability, international competitiveness and sustainability of the forest and wood products industry in Australia.

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<sup>62</sup> <http://www.fwprdc.org.au/>

Map 1: Major Timber Growing Regions



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