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Forests for Woods' Sake: The Demand for Primary Wood Products to 2020

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Paper prepared for presentation at the “Forests, Wood and Livelihoods: Finding a Future for All” conference conducted by the Crawford Fund for International Agricultural Research, Parliament House, Canberra, Australia, August 16, 2005

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SESSION: DEMAND FOR FORESTS AND FOREST PRODUCTS TO 2020

Forests for Woods' Sake: The Demand for Primary Wood Products to 2020

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This presentation covers the main factors driving demand for wood products, global and regional demand to 2020, the significance of developing countries in supply and demand, and the role of Australia in Asia-Pacific.

Demand drivers

The demand for primary wood products is driven by a number of factors, most notably:

- Population, economic growth and changes in demographics
- Technological change
- Environmental issues.

While consumption of wood products has increased with population growth, per capita consumption has been relatively static.

The majority of global demand for forest products is for fuelwood, mostly in developing countries. However, as Gross Domestic Product (GDP) increases in these countries, demand tends to shift to industrial wood products (sawn timber, panels and paper).

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Demographic factors also affect consumption as people in developing economies shift from rural to urban regions, where they develop a more western style of consumption.

The strongest growth in demand for forest products occurs in regions that have both an increasing population and economic growth, such as China, India and the non-Japan Asian countries. For instance, China's demand for paper and paperboard more than doubled in the 10 years from 1993 to 2003.

In Asia, much of the growth in demand is satisfied by supplies from the natural forests. The resulting products are often exported to developed countries that have significant areas of forests locked away in conservation reserves.

The Philippines and Thailand are good examples of countries physically exporting themselves out of forest products. The Philippines was a major exporter of plywood in the 1960s and early 1970s, and Thailand was in the 1980s. Now both countries have virtually exhausted supplies from their natural forest, and consequently both are net importers of forest products!

Technology has also been significant in allowing more to be done with less wood, such as:

- Improved processing efficiency, increasing log recoveries from 30% to around 70% for comparable end-use products.
- The development of engineered wood products has enabled stronger, lighter products to be made using either less wood and/or wood that has naturally lower strength properties.

- Improved building systems are using less wood and have less waste than systems used 20–30 years ago.
- Recycling technology has improved the life of wood products. For instance, recovered paper is now a major feedstock for the paper industry, and panelboards are being successfully produced from recycled wood.
- However, technology has also increased demand. Development of electronic media has been accompanied by a significant increase in production of printing and writing paper (Fig. 1), although current technology is finally moving towards the paperless office and is curbing some demands, particularly in the developed economies.

Environmental trends also impact on wood consumption through either a reduction in the supply as forests are preserved from harvesting, or a shift in demand. Demand is increasing for natural products that are organic, greenhouse friendly, sustainable and recyclable. Forest products should have a natural advantage in this market, but there is a disconnection by consumers between demands for these products and their understanding of how they are produced — particularly in developed countries.

For instance, a desire to restrict harvesting in natural forests in developed countries may inadvertently accelerate destruction of forests in developing countries as imports are sought to meet the supply shortfall.

As developing economies strive to increase their GDP and meet demand from developed countries, most have encountered problems with unsustainable and/or illegal harvesting of forest products. The challenge for these countries is to shift from mining their resources to managing them sustainably. Some countries will need co-operation from the international market to achieve this.

Many consumers in developed countries are totally unaware of the source of the timber products they purchase. This is a problem for the industry, as there is little promotion to the community of the delineation between good and bad forest practice, and consequently bad forest practices and the perception they create can overwhelm the positive features of the good forest practices.

Global demand for wood products from 1993 to 2020

Global demand for papermaking fibre is anticipated to grow by around 2.0% per annum from around 320 million metric t (mt) in 2003 to 490 million mt by 2020 (Fig. 2).

The expansion in demand will be greatest in developing countries with emerging economies, such as China, non-Japan Asia, Eastern Europe and Latin America: all are growing at around 4% per annum.

China's growth will be the strongest, increasing production by over 50 million mt by 2020. Much of the growth in China will be met initially by imports, but China is rapidly developing its own plantation resources.

Demand for sawn timber and panels is expected to increase by around 1–1.6% per annum, rising from about 590 million m³ in 2003 to about 770 million m³ in 2020 (Fig. 3). Softwood sawn timber accounts for half of these volumes: it is expected to increase from around 300 million m³ in 2003 to around 360 million m³ in 2020.

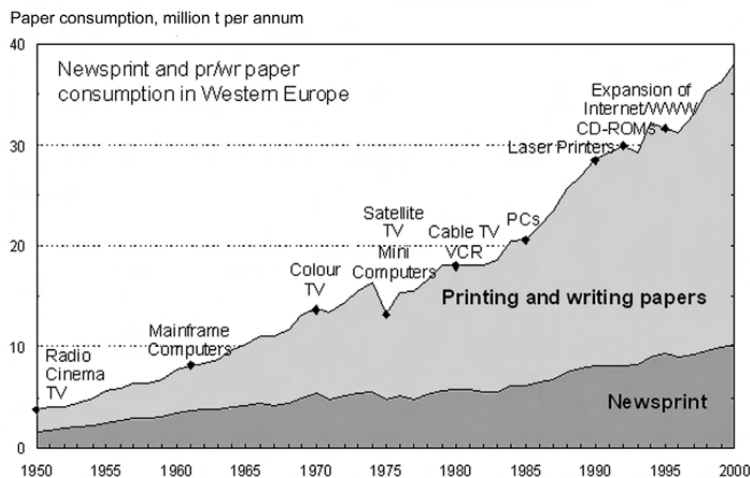


Figure 1. Technology has driven demand for printing and writing papers (JP Research 2005a)

Australia and its role for developing countries

Australia is very small in terms of the global forest products industry. Production of forest products in Australia represents roughly 1% of global forest products demand.

Australia did not develop an annual supply surplus until the mid-1990s; this currently stands at around 7 million m³ and is expected to rise to around 12 million m³ by 2015. However, for the year 2003–04, Australia still had a significant trade deficit in value

terms of around AU\$ 1.7 billion (ABARE 2005). The main contributors to this deficit are imports of paper and paperboard, sawn timber and other value-added products such as doors, mouldings and window frames. Imports of wooden furniture, although not generally reported in forest products balance of trade figures, are also significant at around AU\$ 1 billion.

Australia is and is likely to remain a major exporter of hardwood woodchips, and to a lesser extent wood-based panels, but will struggle to compete in the export market with cheaper panels produced closer to the main north Asian markets. Paper exports have been significant, but are mostly packaging grades. There is a potential for Australia to become a significant exporter of paper pulp if proposed pulpmills are constructed in Tasmania and/or the Green Triangle and Western Australia.

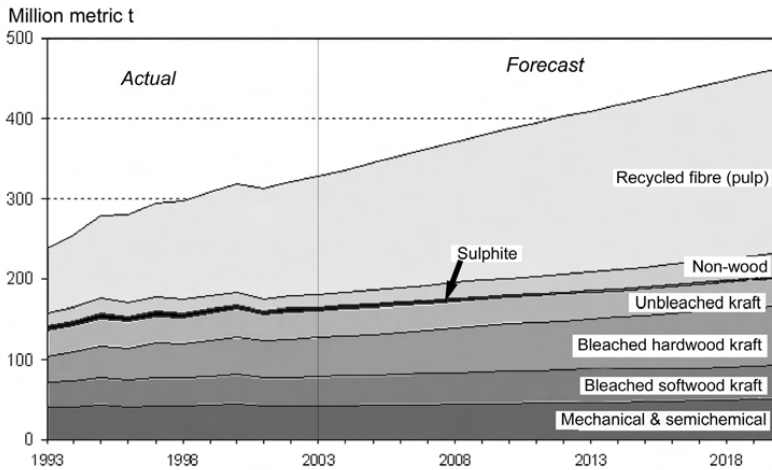


Figure 2. Annual global papermaking fibre demand 1993 to 2020 (JP Research 2005a)

The major product growth in the period will come from reconstituted panels such as medium-density fibreboard (MDF) and oriented strand board (OSB). Russia will show strong growth but from a small base, and China will again exhibit growth in demand of well over 3% per annum.

Total growth will be around 180 million m³ over the period, and China and North America will account for around 60% of this increase.

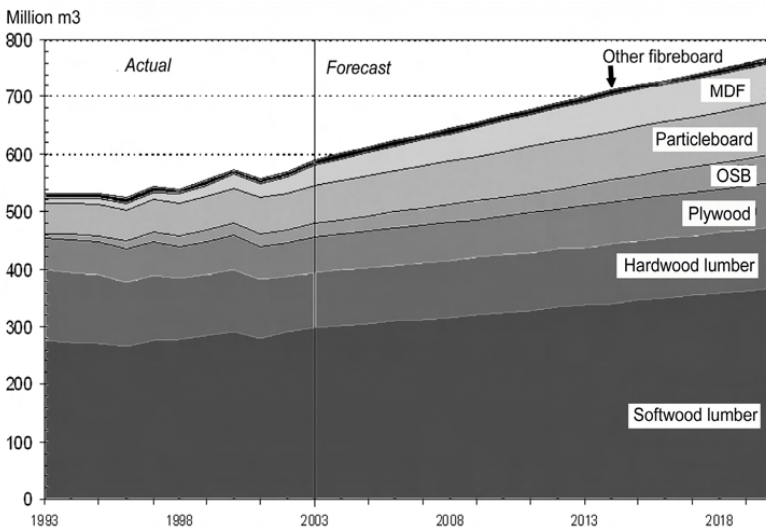


Figure 3. Annual global wood products demand 1993 to 2020 (JP Research 2005b)

As an importer, Australia can assist its Asian neighbours by ensuring that products are sourced from legal and sustainably-managed forests. A country conserving its forests at the expense of others has little environmental credibility.

Certification and Chain of Custody schemes are becoming increasingly common to improve not only sustainability but also to reduce the problems of illegal harvesting of forests. Illegal harvesting occurs mostly in developing economies and economies in transition (recovering from major political turmoil), and is invariably driven by demand from other countries looking for cheap products.

Australia as a producer should ensure that by excluding harvest of its own resources it is not exacerbating the loss of other poorly-managed resources.

Australia has strong technical skills in forest and environmental management and can assist developing countries in managing their resources sustainably. The concept of sustainability is not new to most foresters, but its definition has been expanded beyond purely silvicultural production to include social and environmental factors, and these issues must be taken into account.

Without technical assistance, awareness and cooperative effort, developing countries will lose not only forest resources and revenue, but also ecological biodiversity. Their long-term economic growth can also be seriously restricted, thereby negating the positive economic impact of harvesting their forest resources.

Australia can assist by being a good neighbour and providing both technical expertise and quality products to assist the orderly development of the industry in the Asia region.

Summary

The expanding demand for wood products is driven by population increase in conjunction with economic growth, although consumption is also influenced by technological developments and environmental issues. Most forest products are consumed as fuelwood, and mostly by developing countries. As developing countries increase their GDP, fuelwood demand is generally replaced by

demand for traditional industrial wood products such as sawn timber.

Global demand for paper and paperboard is expected to increase by around 2% per annum to 2020; most of the growth will be in the developing economies of Asia, particularly China.

Demand for wood products is expected to increase at a slower rate of around 1–1.6% per annum to 2020, with the major growth again coming from the fast-growing economies. Reconstituted panels such as medium-density fibreboard (MDF) and oriented strand board (OSB) will make up most of the growth.

Australian production is minor in terms of world demand for forest products, accounting for only about 1%. However, it is likely that Australia will be significant in Asia in terms of exports of hardwood woodchip and possibly hardwood pulp if proposed new pulp mills are constructed. Current indications suggest that Australia will not become self-sufficient in sawn timber, leading to a continuation of imports for which a sound environmental policy will be important. There is also an opportunity to use the significant skills in the Australian forest sector to assist near neighbours who are encountering problems in forest sustainability. Creating greater market awareness is both a challenge and an opportunity for the forest industry, as very few consumers have any real idea where their forest products ultimately come from or the role they play. Accomplishing these tasks will not be easy, but they must not be ignored. It is up to the forest industry to take a lead role to ensure it is the most environmentally sensitive industry in practice as well as in theory!

References

- ABARE 2005. *Australian Forest and Wood Products Statistics*. September and December Quarters 2004. Australian Bureau of Resource Economics, Canberra.
- JP Research 2005a. *World Paper Markets to 2020*. Jaakko Pöyry Consulting, Helsinki November 2005.
- JP Research 2005b. Outlook for the global wood products markets. Jaakko Pöyry Consulting, Helsinki (unpublished).