

AUSTRALIA'S PAPER AND FORESTRY FORUM: A PREVIEW OF SIGNIFICANT ISSUES FOR 1998-2008

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IMPORTANT ISSUES AFFECTING THE PULP AND paper industry, mainly economic rather than technical, were discussed at a forum in Melbourne, Australia. This article presents some highlights of the discussions held last May at Australia's Paper and Forestry Forum.

PLANTATION DEVELOPMENT

The 2020 Vision

The target of "The 2020 Vision" is to triple Australia's timber plantation area by 2020, thus providing a significant opportunity and challenge for the whole tree-growing and wood-processing sector. If the goal is to be achieved, the following steps must be taken:

- Boost the availability of suitable land for plantations
- Use appropriate commercial incentives
- Establish a commercial plantation culture
- Improve information flows

Through their control of land use, planning legislation, and regulation, local and

Author's note: The views summarized in this article are not necessarily endorsed by myself or by organizations with which I am associated. However, I support unreservedly the hardwood plantation policy, for which I have long been an ardent advocate, both in respect to fiber supply for fine papers and to its greenhouse implications.

state governments need to address the following key issues:

- usage rights for plantation growing
- codes of practice for plantation management
- guaranteed rights to harvest plantations
- native vegetation clearing controls
- separation of the ownership of trees from the ownership of land.

The current plantation area of 1.1 million hectares (ha) is being used as the base for The 2020 Vision, so the target is 3.3 million ha, which would require planting about 90,000 ha/year for the next 22 years. The potential benefits that would be realized from well-planned and managed plantations include import replacement and export enhancement to address Australia's trade deficit in forest products, increased employment in depressed rural areas and regional centers, increased farm incomes, and the provision of a commercially viable means of slowing land degradation.

With respect to the existing 900,000 ha of plantation softwoods, increased sawn timber and panel production is already resulting in significant import replacement, a trend that is likely to continue. The major task is to generate significant export markets.





In the hardwood plantation sector, with about 160,000 established hectares, significant volumes of pulpwood will soon be available in Tasmania and Western Australia for the export wood chip market.

It has been assumed that the increase in resource availability will assist the processing industries in achieving the economies of scale required for establishing new internationally competitive processing facilities. However, other factors are involved, and the current level of wood chip exports from Australia (about 7 million green metric tons/year) suggests that resource availability is not the main issue affecting domestic processing of hardwoods for pulp and paper.

Transport infrastructure

A strategic approach is being used to assess the transport infrastructure needs for an expanded forest products industry. The study has particular relevance to Victoria, but the approach could be applied to other states or countries. From the perspective of international competitiveness, estimates indicate that, from forest to mill, transport constitutes 50% of a mill's wood costs. Based on industry sources, the study allowed A\$ 10-15*/metric ton between the plantation and processing plant or bulk port for low-value-added products, and an additional A\$ 10-15/metric ton between the plant and domestic market or container port for high-value-added products.

ASIA PACIFIC SUPPLY AND DEMAND

Production and markets

Although a considerable threat is posed by Asia's low-cost procedures, opportunities are offered by Asia's markets. The challenge, as always, is to maintain a competitive and profitable pulp and paper industry in a way that is environmentally sustainable and socially beneficial. Australia's plantations are approaching 1.2 million ha, about 0.9 million ha of softwood, with the eucalypt area growing sharply. The country is making only about 1 million metric tons/year of pulp and importing 200,000 metric tons/year. If Australia converts less than half of the wood chips exported, it would close this gap.

Pulpwood exports from some Asian countries are projected to grow over the period 1997-2000 by more than 2.5 million metric tons/year (Indonesia), 0.65 million metric tons/year (Korea), and 0.40 million metric tons/year (Thailand). Woodfree paper production capacity in Asia was expected to increase dramatically in this period—by about 370,000 metric tons/year in Thailand, 1.4 million metric tons/year in the People's Republic of China, and 3.1 million metric tons/year in Indonesia. (These figures are subject to revision in light of the current economic crises).

Two companies, Asia Pulp & Paper (APP) and APRIL, with worldwide marketing organizations, make 3 million metric tons/year of pulp at a cost of less than US\$ 100/metric ton of production (an estimate based on US\$ 1 = Rp 6000+). They export more than 80% of production, they are on our doorstep, and APP's expansion is fully funded. Indonesia, Korea, and Thailand are becoming quality producers of white papers. For Australia to compete internationally in the printing paper field, it must use existing wood resources for domestic pulp production, increase the rate of development of home-owned plantations, build state-of-the-art mills, and adopt an export orientation.

Long-term profitability seems assured in brown papers and tissues, barring major misfortunes, and a new machine will help provide self-sufficiency in newsprint, but to compete in printing and writing papers, we need a radical change of approach.

The economic crisis

Several items describe the effect of the Asian crisis on supply and demand in the Asia Pacific region:

- With a large population, demand will grow in the long run.
- The present situation is a financial crisis rather than an economic collapse.
- Consumption was expected to decrease in 1998 in most countries in the region, while capacity and production continued to increase.
- The turmoil will breed opportunities.
- The emerging structure will be stronger than before.

The present crisis has been marked by plunging currencies, lack of bank loans, little working capital or few letters of credit, and declining stock markets and foreign investment. Delivered costs of uncoated woodfree producers have declined, and interest rates have soared in all countries directly affected by the crisis. A number of development projects have been canceled or postponed, but a large capacity increase is still on the way. In most grades, imports are decreasing and exports increasing, while fiber imports continue to grow.

New Zealand

Carter Holt Harvey Paper (CHH) (originally New Zealand Forest Products) is New Zealand's largest pulp and paper company, with mills at Kinleith, Penrose, Whakatane, Kawerau, and Mataura. Tasman Pulp and Paper is the other major producer, with pulp mills and paper machines at Kawerau. CHH has ties with International Paper and Tasman with Fletcher Challenge. Two smaller companies are Pan Pacific Forest Industries (owned by Oji Paper), which produces 240,000 metric tons/year of

*A\$ 1 = approximately US\$ 0.617.

thermomechanical pulp (TMP), and Winstone Pulp International (owned by Perfect Match Corp.), which produces 120,000 metric tons/year of chemithermomechanical pulp (CTMP).

Major upgrades at CHH Kinleith in 1997–98 include pulp processing and a dryer (+80,000 metric tons/year), the PM No. 6 rebuild (+70,000 metric tons/year net increase after the shutdown of PM No. 5), and a new recycled paper plant. New Zealand pulp production has been fairly steady over the last decade at 300,000–350,000 metric tons/year (about half chemical and half mechanical). In the same period, paper production has increased from 750,000 to about 780,000 metric tons/year.

Australia is the main market for New Zealand chemical pulp (80,000 metric tons in 1997), followed by Indonesia, Korea, Taiwan, the United States, Japan, and Thailand. Most New Zealand mechanical pulp exports are to Japan (246,000 metric tons in 1997) and to Indonesia (58,000 metric tons in 1997). Most of the paper exported is bound for Australia (161,000 metric tons in 1997), with Hong Kong receiving 62,000 metric tons and Malaysia getting 41,000 metric tons. The Australian paper imports from New Zealand are mainly newsprint. The Japanese tree farm industry is dabbling in New Zealand: Itochu-Oji in Southland and both Itochu-Oji and Marasumi in Northland. Among future challenges for the New Zealand industry are plans for hardwood pulp and paper and the establishment of profitable markets outside Oceania.

International trade

Although the Asia Pacific region is both an exporter and importer of wood and paper products, most of the trade—some 80%—is intraregional. For this reason, some contend that the sectors should be considered for early liberalization of trade barriers. However, some of the ASEAN economies have very high tariffs, e.g., Malaysia (up to 40% on wood products and up to 30% on some paper products) and Indonesia (up to 25% on wood products and up to 15% on paper). Australia's tariffs, on the other hand, range from 0 to 5% on wood and paper items. Australia, therefore, may have more to gain from a sectoral liberalization plan.

Regarding the extent to which Australia's exports are being affected by the Asian crises, products that target the higher-value-added—or consumer product end—of the scale are being affected much earlier and much more severely than those that are resources or intermediate inputs to production for export. Because some two-thirds of our exports to east Asia are inputs to production rather than consumer product, Australia is better off than it might otherwise have been.

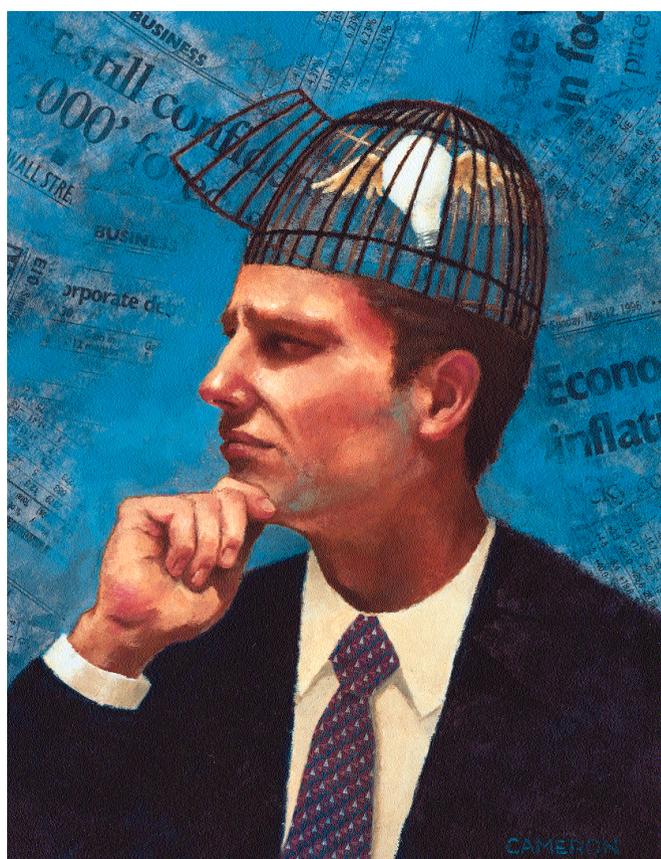
The question of what constitutes dumping was raised in the context of the very strong growth in recent months of Australian imports of Indonesian paper. The

depreciation of the rupiah has given a competitive advantage to the Indonesian exporters. In the longer term, however, the east Asian region is still viewed as one of opportunity for Australia.

FIBER SUPPLY, PACKAGING, AND RECYCLING

Several points describe fiber supply, packaging, and recycling in the Australian pulp and paper industry:

- Over the last 8 years, pulpwood harvested within Australia has increased from 3.7 to 3.9 million o.d. metric tons. However, pulpwood used locally has declined from 824,000 to 614,000 o.d. metric tons,



and pulpwood exports have increased from 2.9 to 3.3 million o.d. metric tons.

- Paper and board production in Australia has, however, increased steadily, to almost 2.5 million metric tons in 1996–97. This is because the proportion of recovered paper in papermaking furnishes has risen from 37% to 55% over the last 8 years. Most of the increase has been in packaging grades.
- Surplus recovered paper has been exported to Asia, but part of this trade appears to be a casualty of the Asian meltdown.

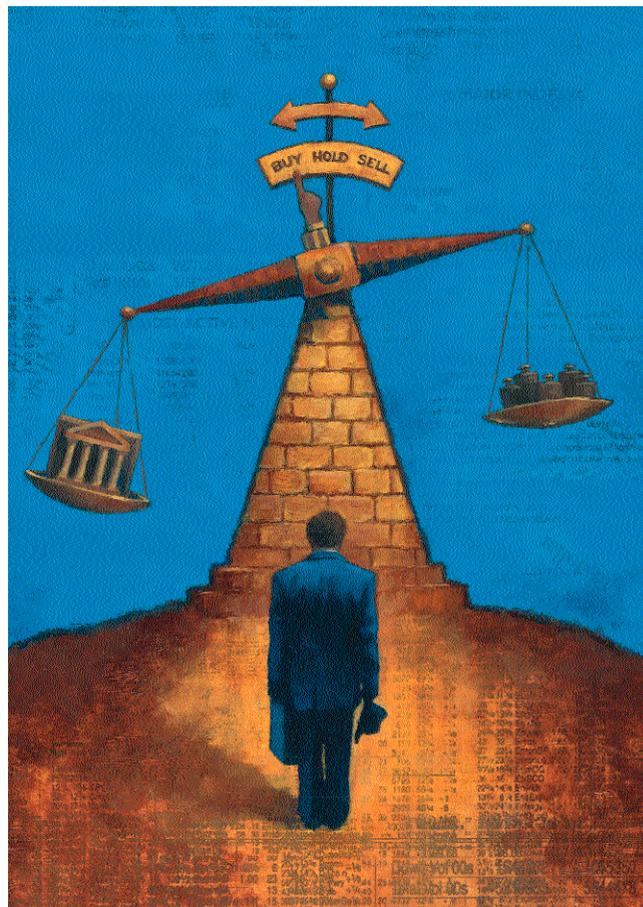
- Fine paper production that relies on market pulp could be vulnerable compared to foreign integrated operations if the price of pulp rises substantially.
- Despite the high utilization rate (apparent consumption of recovered paper as a proportion of the paper and board produced) in Australia, a massive surplus of recovered paper now exists. The market in China may expand because many straw-based pulp mills, without chemical recovery, must be closed for environmental reasons.
- Australian manufacturers have held their own in the packaging paper and board market, but in the printing and writing paper sector, with reductions in tariffs, the local industry's market share has declined from 43% in 1984-85 to 32% in 1996-97. The industry has been unable to take advantage of even the import replacement opportunities, let alone any export prospects.
- Australia is the preferred location for plantations, as envisaged by Japanese development planners, but to be competitive, the next generation of pulp mills may have to be built adjacent to the plantations. Access to world-scale pulping facilities may lead to a local renaissance in the production of printing and writing paper.

Packaging market

A wealth of statistics relating to the various sectors of the packaging market is available, including growth trends from 1990 to 1997. In the paper and board field, the total market value amounted to A\$ 2.4 billion and is broken down as follows:

- corrugated containers: A\$ 1.5 billion
- folding cartons: A\$ 480 million
- multiwall sacks: A\$ 70 million
- liquid packaging: A\$ 95 million
- paper bags and wrappings: A\$ 255 million.

Packaging as a percentage of gross domestic product has declined from 1.30% in 1990 to 1.21% in 1997, with further falls forecast. The corrugated container market, estimated to be 900,000 metric tons in 1997, was projected to grow to 1 million metric tons by 2000, but this market faces competition from various plastic alternatives, such as bundle and display shrink film, pallet shrink bags, stretch wrap, plastic crates, and expanded polystyrene (EPS) cases. The value of the folding carton market totals about A\$ 480 million. The board consumed is about 170,000 metric tons/year, and this value has declined slightly over the last two years. Competition comes from the corrugating industry and flexible plastics packaging.



The development of the home meals replacement market is expected to have a large effect on packaging trends. The "chilled" sector is already growing rapidly, at 200%-300%/year. In liquid packaging, which consumed 46,000 metric tons of board in 1997, there is modest growth—the net effect of a decline in gable-top cartons in favor of plastics, and strong growth in paperboard aseptic cartons.

Recycling

With 14 founding companies, including Amcor and Visy, the Australian Buy Recycled Business Alliance (BRBA) has several social and business objectives:

- to demonstrate that buying recycled products is a sound, practical, and market-based approach to waste minimization
- to increase the use of products and materials with recycled content
- to increase the understanding of the value, reliability, and performance of recycled materials
- to encourage innovative methods of extracting value from the waste stream.

The fact that a single business can make a large difference in the recycling chain is exemplified by U.S. BRBA

member, American Airlines, which uses recycled material for on-board paper napkins, towels, and tissues and which recycles large amounts of aluminum from its beverage service.

In considering a local government perspective on recovered paper collection, the annual cost to the local government of providing curbside collection services is estimated to be A\$ 15–20 million in Victoria and A\$ 80 million across Australia. Local government is invariably asked to pay more for curbside collection when the price of paper falls. However, some contend that councils should not pay any more than the avoided landfill charges, plus any avoided transport/collection costs.

Discussions about national waste minimization concluded that effective and efficient waste management and reduction must rely on a partnership between all levels of government, business, industry, and the broader community; that solutions must be market-based; and that government actions in this sector must be based on the establishment of clear signals and incentives.

THE GREENHOUSE CHALLENGE: CARBON TRADING

There are significant effects of greenhouse protocols, as agreed to at the Kyoto Conference in Japan, on the pulp and paper industry, particularly in relation to the emergence of carbon trading as an important economic factor in silvicultural and manufacturing processes. Although these protocols are still not fully settled, the following key points pertain to the Australian paper industry:

- The commercial aftereffects of the Kyoto Protocol from January 1, 2000, to January 1, 2008, will drastically alter the paper industry, with smart and flexible operators surviving and prospering, and the slow and conservative ones having problems.
- The changes will blur the lines between paper producers, waste recyclers, and power utilities.
- Native forest operations may not be considered in the emissions audit path because the issue is too complex.
- Recycling may be at risk in its present form.
- Certified emission reductions will play a vital part in the whole process.
- The protocol will create three categories of paper industry operators in Australia: (a) those with a pure 1990 baseline (currently operating at or below the emission levels of their business in 1990), (b) those with a 1990 baseline and a post-1990 expansion element, and (c) those that have entered the business after 1990. Most Australian companies are in the second category.
- If a business with an audited 1990 baseline shuts down, then its 1990 emissions can be converted

into CERs (Certified Emission Reduction certificates) and sold as a block for up to 10 years. Boards of directors may be under shareholder pressure to match performance against a shutdown scenario.

- Every operation in the industry will be subject to an emissions audit. Some critical factors will be how long trees are grown before harvesting, the type of tree, how to minimize emission debits, the shutdown premium for the previously mentioned category (a), management skills in soil biomass and fertilizer application, and fire protection in hardwood plantations.
- The assumption that a CER bonanza may emerge from a company's plantation activities may not necessarily be valid, as each company will be audited across the full range of its systems.
- Another possible business opportunity is the exploitation of the Clean Development Mechanism, set up under Article 12 of the Kyoto Protocol, whereby a pulp and paper operator could establish a long-term sequestration project in a developing country and transfer the CERs from that operation to be part of its own baseline.
- Emission managers will appear, probably reporting directly to the CEO or CFO.
- Those 1990 baseline operators using native forest timber apparently have a potential cash flow should they choose to shut down this sector of their operation, or part of it.
- The question of how paper recycling fits into the carbon-trading regime is complex. Recycled paper is stored renewable carbon, whereas paper that is not recycled usually goes to a landfill and degrades anaerobically; the carbon then escapes as methane or carbon dioxide, thus negating the credit for the original photosynthetic sequestration.
- In the context of carbon trading, the economics of introducing recovered paper into a biological digestion system is worthy of consideration. For many operations, methane might replace diesel fuel between 2000 and 2008.
- The sooner the industry starts to address the issues surrounding Kyoto, the sooner it will be able to crystallize costs in the long term and lock in some protection against the inevitable market fluctuations. **TJ**

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