International Biomass and Log Markets: Potential Impacts for New Zealand Forest Owners

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Agenda

› Pacific Rim Log Markets
  – Focus on China, Russia, India
› Biomass Energy Markets
  – Pellet trade to Europe
  – Pacific Rim Biomass Trade?
An average of 33% of New Zealand’s total timber harvest has been exported as unprocessed logs since 1994 --- and in 2009 as much as 50%.

Log exports accounted for 28% of total forest products export value from New Zealand in 2009, and 41% of wood products export value.
New Zealand’s log export volume hit a record 8.7 million cubic meters in 2009, up 32% from 2008

New Zealand’s log export markets changed dramatically in 2009, as volume to China soared to nearly 5 MMCM, accounting for 55% of log exports.
China now dominates the Asian softwood log markets, with volume in 2009 more than four times larger than the second largest market, South Korea.

India’s softwood log imports hit a record 1.0 million m³ in 2009, and New Zealand has more than 80% of that market.
New Zealand’s share of the Asian softwood log markets jumped from 15% in 2007 to 28% in 2009, while Russia’s share fell from 69% to 50%.

New Zealand is by far the largest supplier to the Korean market, followed by the USA.
New Zealand is only a relatively small supplier of softwood logs to Japan

Russia’s share of China’s softwood log market fell from 91% in 2007 to 68% in 2009, while New Zealand’s share increased from 5% to 22%
In 2009, New Zealand logs averaged about US$20/m³ less than Russian logs and $50/m³ less than US and Canadian logs, on a CIF basis.

The sharp correction in New Zealand delivered log prices in early 2009 stimulated greater Chinese demand, but by year end CIF prices for radiata had edged back above Russian log prices.
China is the most important wood import market in the world; volumes jumped in 2009 partly in response to the economic stimulus program.

On a log equivalent basis, China’s softwood log and lumber imports are 34% lumber; Russia has 45% of the market, Canada 38%, New Zealand 6.6%.
China’s imports of Russian logs began falling in early 2008, well before the economic crunch.....but don’t count the Russians out just yet

A variety of factors have prevented the USA and Canada from taking a greater role in the Asian log markets, and a recovery in lumber markets will likely keep US exports from rising in the future
Potential challenges for the NZ log trade

- Negative real price trends (in NZ$)
- New entrants in the log export game --- does greater competition for the logs mean better prices for NZ forest owners? Not necessarily
- Methyl Bromide controversy
- Where will the pruned logs go?
- Russia’s log export tax – will they or won’t they?
- And of course exchange rates and freight costs

The Emerging Biomass Markets

Generous feed-in tariffs promote planting of energy crops for biomass like this operation in Spain.
The “biomass bonanza” began with EU countries setting targets for renewable energy to reduce GHG emissions --- these became binding in June 2009.

### EU National Targets for the Share of Energy from Renewable Sources in 2020

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<td>Austria</td>
<td>23.3%</td>
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<td>Latvia</td>
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<tr>
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<td>Czech Republic</td>
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<td>Netherlands</td>
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<td>Estonia</td>
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<td>Finland</td>
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<td>Italy</td>
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<td>17%</td>
<td>EU27</td>
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Note: It is a sure bet that not all of these announced facilities will actually be constructed.
Demand for biomass imports in Europe: will it be wood pellets, biomass chips, or both?

Prenergy’s Port Talbot plant in the UK may import 2-3 million tonnes of woodchips; a number of these projects have been scouring the US South for several years, looking for massive chip volumes..... But no one has yet been successful in heat treating chips to meet the current EU phytosanitary issues.

Despite a few shipments of biomass chips from Liberia to Europe, almost all overseas imports of biomass fiber recently have been in pellet form.
Almost all imports of pellets into the EU from overseas have been from North America; volumes reached record levels in 2009, although well below most forecasts by industry promoters.

Pelt Exports from North America to Europe, 1998-2009E

Vancouver, Canada, is the world’s largest biomass fiber loading port, with both Fibreco and Kinder Morgan loading pellet vessels for Europe.
There is a “gold rush” in North America to produce wood pellets, with more than half of new capacity in the US South.

The potential Japanese biomass market

- Japanese power companies consume 100 million tonnes of coal per year
- Power companies are just getting started with co-firing
  - Kansei Electric importing pellets from Canada
  - At least 7 other power companies testing co-firing of coal and pellets
  - Chubu Electric trialing imports of biomass chips from Australia and elsewhere
- Co-firing testing at 3%, but will move to 5% quickly = roughly 5 million tonnes of pellets
- Timing is the question --- Japanese companies have been dragging their feet for several years, and this could continue slowly for several more.
Korean government voluntarily agreed to cut GHG emissions by 30% from expected 2020 level

- Korean Forest Service plans to produce (procure?) 5 million tonnes of pellets by 2020, including 1.0 million in Korea and 4 million tonnes overseas.
- KFS securing large overseas forest concessions/areas for plantations.
- Currently trying to make deals in Indonesia, Cambodia, etc.
- But they may find that clearing native forest and establishing greenfield plantations for pellet projects is not the best approach......


- Biomass consumption could grow rapidly, including with pellets – but the fiber is most likely going to be domestic, and mainly agricultural residues.
- Both biomass and wind projects multiplying faster than grid connections can keep up ---- biomass may be more expensive than imported coal – maybe– but it definitely creates a lot of employment in rural areas.
- Generous incentives for jatropha planting, but no great successes with this to date.
Conclusions

- Russia has been the main competition in the log market in China, but their decline opened the door for NZ.
- Log market in China for New Zealand is not limited by demand, only limitation is on the supply side. USA, Canada, Australia all very restricted in how much they can/will increase log exports --- and there are no other sources of softwood logs.
- Biomass trade has gotten off to a much slower start than many anticipated, and the European market is currently oversupplied.
- The biomass market of interest to New Zealand is the one in north Asia, primarily Japan followed by Korea. But development could be much slower than many would like to see.

Questions?

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For more information on the woodchip markets, see RISI’s 2010 Edition of *The International Pulpwood Trade Review*, www.risi.com/pulpwood

For more information on policies driving the international biomass markets, see RISI’s new report, *2010 Wood Biomass Policy Review*, www.risi.com/biomass