

The tyranny of distance and a post-industrial future?

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Logging trucks: they are the connectors in the industrial complex, these log-laden 18-wheel carriers of commodity from hill skid to mill door. Most who follow behind them don't give a thought to where they have been or where they are going. Like sheep trucks, people are more concerned with the stuff that comes off them - chucks of bark or that fine mist of faeces mixed with urine. But there is a story in where these trucks travel, and many, many questions about the shape of the future.

Here's the big question. If we grow only a commodity product, what will be the effect on both a possible future reduction in sale value and an increase in the cost of harvesting and transportation? That will impact particularly on those forests in the backblocks, planted on hard hill sites where a lot of energy is required to remove and transport logs to a processing point. Half the weight of a log is water. If energy costs rise in the future, it will make little sense to transport that spare weight.

So what are the options? There are a few. We can go for higher value logs either through different tending regimes or different species; ever larger scale blocks; or we can shift our thinking out to what is referred to as 'post-industrial' systems where instead of the logs (and their water) travelling long distances to the long-distant mills or wharves, the portable processing comes to the site. Quite a few New Zealand foresters are doing that now - the Millens, the Wardles, and a growing pool of others.

Currently, it is the 'industrial model' that we all know well. 'Stumpage', that net value paid to the forest grower for every hectare harvested, is a reflection of the value at the mill-door or wharf-gate return, less all the costs from there to the stump. We clearfell, breakout to a skid, load logs onto lorries, transport them to the mill, and wait for the cheque. If you have high costs, you get a low return. If the value of the logs is low - for instance for low radiata grades or pulp from eucalypts - then the returns can be negative.

Under our industrial model, the most successful forestry regions of the country rely heavily on a number of efficient cost structures. That involves having plenty of log sale options needed in order to get a good price (mills and ports, the more the better for a grower) and to optimise travel costs, a quality state highway roading network, a quality local body roading network, a good internal forest or farm roading network, and efficient harvesting costs.

In these successful areas the industrial model is fine.... for the moment. In a well located block of well-managed radiata pine, where there is good internal, district and state highway infrastructure, and where there is good

competition from industrial buyers, stumpage returns can make \$30,000 per hectare. But if your block is open to the tyranny of distance, then the returns can be marginal, especially where long distance is combined with a low price for the delivered logs.

Dealing at what is called 'the margin' is not the best, especially where prices and costs have a tendency to dance about a bit. You go from having great returns to having low or negative ones. *Eucalyptus* pulp regimes are great at that. Dancing is usually OK with forestry because it has this wonderful attribute of not having to be felled if the markets are poor. But when the log price movements for commodities are generally downward, and costs associated with energy and transport are generally upward, then ... well, a rock and a hard place come to mind.

There are a few areas in New Zealand where logging costs are high, location is more difficult, transport distances are long, and sale options either to port or mill are limited. The West Coast of the South Island, the East Coast of the North Island, northern inland Hawke's Bay, parts of the hard Wanganui and King Country hill country are some examples.



Hard Taihape country. Credit Angus Gordon.

The conventional approach is to prescribe large areas. No surprises there. We like to keep to the knitting, and look sideways at any more radical innovations that it is easy to label as 'risky' or 'doomed to fail'. So the higher value species are sidelined in favour of the known - radiata pine - whose supply keeps increasing from other 'third world' producers with far lower cost structures than New Zealand. And we think this is less risky as an option? Hmmm.

It's addressing that thought where the other options

come into their own - different species producing higher-value wood, which happens to be much more amenable to bringing the processing to a site.

Here's the crux. Radiata pine prices will probably trend down in the future, and no amount of cost-efficiency gain is likely to offset that decline in associated profit. There are two reasons for that. The first is that radiata pine has an appalling market position relative to other more internationally recognised timbers like Douglas-fir. There is an old forester saying that the buyers will walk on glass for your cypress, plead for your Douglas-fir, and take your radiata. If there's another cheaper radiata source, they'll take that instead and you can like it or lump it. Going for the cheapest costs - and radiata is a relatively cheap timber to grow - means that you open up the market to many other suppliers who are running after the same 'cheaper is better' view of the world. It's one of the reasons that financial analysis that doesn't consider strategic market position should be strongly discouraged.

One clear demonstration of radiata pine's appalling market position is what happened with the movement of shipping costs over the last 10 or so years. Back in the mid 1990s, bulk shipping costs to north Asia were less than \$US30 per tonne. As the commodity boom happened and north Asia demanded more and more coal and iron ore that competed with shipping space, those prices rose to \$US80 per tonne. Forest growers carried that increase, so a radiata pine log returned \$US50 less per tonne for a given north Asian price that they had 10 years before. In October 2008, the freight costs plummeted following the financial crisis. Freight costs dropped again to \$US20 per tonne. That's a \$US60 drop in costs that forest growers should have received on the principle that he who wears the cost on the way up ought to benefit on the way down. Well that principle didn't hold, and the buyer - the one in the strong market position - took two thirds of that drop. Growers lose \$US40 a tonne and instead of treating this as yet another lesson of why market position is more important than cost efficiency, we are told to strive to 'get our costs down' to make a quid. It's the colonial hang-up. We're great producers and piss-poor marketers. We're great technical tacticians and appalling strategists. We're like an expert bunch of engineers making Morry 1000s by the million, and each time the price drops, we want to build a bigger plant to produce more, cheaper.

It gets worse. The freight cost has gone up again by \$US10 since the lows of late last year. I'm giving no prizes for those of you who guess who out of the producer and the buyer wears the cost.

And then there's the second reason why I think pine prices will continue to fall, and that's about energy. Energy costs are likely to rise in the future, particularly for transport fuels. There may even be a time where we may have limited access to them. The odds are that a currently

cost-efficient, but high energy-use model may in the future be a high cost and high energy-use model in the future. Not in the next ten years perhaps, but twenty, thirty, forty? And that's a forestry rotation. If you get energy biting at one end, and lower prices biting at the other, it becomes time for a radical rethink.

That prospect of shrinking margins - and it's happening in agriculture as well for much the same reasons - is bad enough in those forest areas with great transport infrastructure and good harvesting costs. But in those long distant, harder hill areas mentioned above, they're positively disastrous.

The alternative is better. Grow high value timbers that can take the transport costs, and are very amenable to smaller-scale environmentally-positive woods and forests within farmland. They're also much more amenable to trumping the tyranny of distance by bringing the processing to the trees. You don't have to transport the waste, and you can even dry that half tonne of water out before you ship it out on a flatbed lorry.

But here's the cream: high value species are in a sellers' market so the producers tell the buyers what the price will be, not the reverse; and high value timbers are far more amenable to not just secondary processing into high quality finishing materials, but also for tertiary processing where the craftsman and the artisan can prosper - the fine furniture maker, the sculptor. That's great for local communities.

That's one potential future. And it's a time we started debating and thinking about it.