Forestry in Shaanxi Province, People’s Republic of China – the part played by Yanan Zhengxian

He Zhengxian

Shaanxi Province is a long, narrow region running from north to south in central China. A mountainous area, Qilin Mountain (3372m), lies across the central part from west to east, dividing the province into two parts. Watersheds to the south of the mountain drain into the Yangtze; north of Qilin they drain into the Yellow River. Since the mountains restrict the airflow moving north, the climate becomes drier and colder from south to north. This results in three distinct climatic and phytographic zones.

1) The semi-arid sand dune area along the central part of the Great Wall.
2) The loess plateau, which covers 100,000 km² in the centre of Shaanxi, and which constitutes the forest steppe region.
3) The country south of the mountain barrier which has mixed deciduous and evergreen broad-leaved forest.

From the north to the south, minimum winter temperatures range from -28°C to -12°C (mean -9°C to -20°C), and maximum summer temperatures from 32°C to 38°C (mean 18°C to 26°C).

Serious soil erosion exists in all parts of the province. The total area being eroded is 137,000 km², equivalent to 70% of the total area. Annual loss of silt is 9 million tonnes, about 8 million of which comes from the loess plateau in central Shaanxi. A strategic plan has been drawn up for soil conservation. This contains different afforestation and management methods for the different geographic regions.

In the north of the province, windbreak and sandbreak shelter belts have been established using native or naturalised trees such as saxaul (Haloxylon ammodendron), Russian olive (Elaeagnus angustifolia), Tamarix (Tamarix chinensis), and locust (Robinia pseudoacacia). More recently Pinus silvestris var. mongolica has been extensively planted with better results.

In the north of the loess plateau, attempts were made to establish soil conservation forests of Chinese pine (Pinus tabuliformis), Platycladus orientalis, Ulmus pumila, Hippophae rhamnoides, and Robinia pseudoacacia. As annual evaporation
Summary

To summarise, sawn timber is a sub-sector of the forest products industry. It is an industry that is dominated by average performance. We compare our performance against others on average. We feel good if we are better than the average. And we work to recover if our averages are down.

To date, New Zealand has proved that it can grow radiata trees very effectively. These trees sold as raw logs in Asian export markets yield acceptable and above average returns. In contrast, sawn timber manufacturing has endured over-capacity and is under-capitalised. The sawmill returns have been inadequate. Periodically, there are valued-added opportunities that arise which have the potential to create business excellence. These can require a different type of marketing and/or industry structure. If such opportunities are to be realised, the New Zealand industry and Government need to carefully consider how to create a supportive environment. That is, large forest owners should plan to increase domestic log sales to smaller sawmillers. And Government should encourage venture capital and other funding to build an independent remanufacturing industry and related marketing activities.

In this lumber export alternative, the “window” or time framework for establishing an effective supply position with the US millwork industry is likely to take two to three years. At the end of that time, they either will not need a large supply of New Zealand radiata pine due to non-lumber substitutes or other supply sources could take over, including Southern pine from Brazil.

It should be noted that Brazil grows Southern pine equally well, compared to New Zealand radiata, and that there are established forest plantations reaching maturity. Already, the Brazilian sawmill industry is exploiting export opportunities in the US. And in some regions of the US Southern pine is being used on an experimental basis, as millwork feedstock (fingerjoint blanks, etc.) with good results. Clearly, they too can expand and become a more successful interloper, if New Zealand is unprepared to meet the challenge.

There are no shortages of innovation opportunities for countries that can innovate. Contrast the basic Canadian forest product commodities to the value-added forest products of Finland. What New Zealand requires is a “jump start” to improve the performance of its solid wood industry, and hence, the ability to expand the down-stream processing of value-added fibre products (by-product chips). These strategic moves will improve the overall New Zealand averages for the entire sector.

A current radiata pine lumber export opportunity

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