



Provincial Growth Fund Position Paper

Wood processing investments

Purpose

This paper sets out the Provincial Growth Fund (PGF) approach to investing in wood processing to support regional economic development.

The position set out in this paper complements that which is set out in the PGF [Tier 2: Sector Investments](#) position paper.

Vision

The PGF's vision is to make targeted investments to enhance the productivity potential of, and capture greater value from, New Zealand's wood processing sector. New Zealand has a core competitive advantage in forestry but this has become dominated by the export of raw logs; principally to China. PGF investments will contribute to wider government activity, by enabling greater domestic value generation laying the seeds for sustainable, high-value, economic activity.

Objectives

Objectives of PGF investment in wood processing

Key to achieving the PGF's vision for the wood processing sector is to maximise value from New Zealand's forestry production. This can be done by focusing on moving its outputs up the value chain.

Therefore, the PGF will invest in a range of opportunities with three main objectives. Taken together, these objectives will help to foster domestic value chains that maximises the value able to be generated by the sector.

The most important objective of PGF investment in the wood processing sector is to increase the processing of logs into value-added products. This includes value added timber construction products, such as Cross-Laminated Timber (CLT), Optimised Engineered Lumber (OEL), Industrial Plywood, Orientated Strand Board (OSB), Remanufacturing and building componentry, and prefabricated buildings.

The PGF will invest in projects that convert forestry and wood processing residues and by-products into value-add products. This will complement the PGF's investment strategy in the waste-to-energy space.

The PGF will consider investing in projects that increase the volume of logs that are processed into high quality sawn timber such as for CLT. Without sufficient globally competitive sawmilling capacity there is no foundation on which New Zealand can produce higher value products. The PGF is particularly interested in processing investments where it is done in a way that integrates production into whole-of-log processing, e.g. by processing wood waste into other products or energy.

Contribution of wood processing objectives to wider PGF objectives

Wood processing is a strategic priority for PGF because of its strong potential to contribute to all of the PGF's main objectives:

- **jobs and sustainable economic development:** maximising value from New Zealand's forestry sector, by increasing its value-added output through wood processing investments, will increase the number of better paid jobs in an environmentally and economically sustainable sector;
- **Māori development:** given the existing Māori asset base in the forestry sector, PGF investment presents a clear opportunity to increase the participation of Māori in the wood processing sector, in particular, as owners;
- **climate change and environmental sustainability:** increased economic development based off the forestry sector is inherently sustainable, and will support continued investment in afforestation which is a key climate change mitigation;
- **social inclusion and participation:** increased economic development through the wood processing sector will primarily benefit the PGF's surge region, creating more training and employment opportunities;
- **resilience (infrastructure and economic):** successful investment in value-added processing capacity, and waste-to-energy opportunities, will support the development of domestic value chains that will diversify the sector, including destination markets, helping to ensure regional economies are better placed to withstand economic shocks.

Context

Forestry products are New Zealand's third largest export commodity following dairy and, and meat and wool, with the sector reaching \$6.4 billion in export earnings for the year ending June 2018.¹

New Zealand forestry (logging and downstream) contributed approximately \$3.55 billion to the New Zealand economy in 2017,² and is responsible for employing around 18,000 full and part-time workers.³ The main products produced by the industry are sawn timber, pulp, paper products and panels.

New Zealand's wood processing sector has been undergoing a process of consolidation, with the number of smaller, less efficient mills decreasing over the past 15 years. However, the domestic wood processing industry remains a particularly important source of employment and economic

¹ Situation and Outlook for Primary Industries, June 2019, Ministry for Primary Industries

² Plantation Forestry Statistics Report 2017, New Zealand Institute of Economic Research

³ Industry Insight 2018: Forestry and wood processing, Westpac

growth in the regions, especially in the Bay of Plenty, Waikato, Northland, Hawke's Bay/Tairāwhiti and Tasman/Nelson areas.⁴

New Zealand exports a high proportion of unprocessed logs compared to value-added products such as sawn timber, wood panels and paper products.⁵ There has been rapid growth of both the value and volume of log exports, driven by strong Chinese demand. Nearly 60 percent of harvested logs are exported overseas, with the remaining 40 percent being processed in New Zealand into a range of higher-value wood products.

Processed wood exports have remained relatively static over the past 10 to 20 years, in terms of both volume and average price. This means that while New Zealand's wood supply has been increasing in recent years, all the additional wood is being exported, rather than processed domestically into value added products.

Annually, New Zealand exports 40 percent of our sawn timber and wood panel products, 60 percent of our wood pulp, and 50 percent of our paper products. Key markets include: the United States, China, and Australia for sawn timber, Japan for wood panels, Indonesia and South Korea for pulp products, and Australia for paper products. In comparison, New Zealand has only four major export markets for logs.

Increased planting in the 1980s and 1990s has resulted in a significant increase in harvest volume in recent years, from around 20 million cubic metres (m³) in 2010, to nearly 35 million m³ in 2018. This level of harvesting will continue, and potentially increase to an additional 10-15 million m³ per year from the mid-2020s, with this increase coming mainly from small forest growers.

Targeted investment in the wood processing sector can support the conversion of more of New Zealand's raw log harvests into value-added goods. In the near term, if demand from China starts to slow as forecast, forestry owners may redirect more logs to local saw mills at lower prices. This increase, if it occurs⁶, should be able to be absorbed by domestic market demand driven by acute housing shortages in Auckland and a lift in homebuilding in other parts of the country, including Wellington and Otago.

The medium to long-term outlook for wood processors is more challenging, but there are still investment opportunities – not least because the One Billion Trees programme and increasing afforestation will support long-term wood supply. While New Zealand's competitive advantage is in the production of logs; North American demand is constrained and limited to sawn products with Russian softwood exports shifting from logs to sawn timber following tariff increases on log exports.

New Zealand loses its competitive edge in downstream processing where the sector lacks economies of scale to be able to be internationally competitive, which is aggravated by New Zealand's distance from key markets. However, Red Stag's super mill in Rotorua demonstrates that when operating at scale, wood processing operations in New Zealand can compete on the global market.

⁴ Plantation Forestry Statistics Report 2017, New Zealand Institute of Economic Research

⁵ Industry Insight 2018: Forestry and wood processing, Westpac

⁶ If china log prices decrease many small forest owners (who make up 40 percent of the total harvest) may choose not to harvest – unless domestic prices increase significantly. Also, processors can only take some parts of logs, so it's not necessarily straightforward direct logs that were intended for export to domestic processing.

As per the Tier 2: Sector Investments position paper, the PGF is willing to invest to overcome some of these challenges. Given the strategic importance of the sector, the PGF is also willing to exercise its broader risk appetite to do so.

Gaps and opportunities

New Zealand's forecast growth in forestry harvests supported by a relatively benign climate and good biosecurity, present opportunities for wood processing sector investments. More so when emerging global climate change will adversely affect large producing countries. This has potential to generate significant long term benefits for regions where forestry is a competitive advantage.

Increasing the volume of New Zealand grown logs and sawn timber processed into value-added products

Domestic market demand, driven by acute housing shortages in Auckland and a lift in homebuilding in other parts of the country, has created a market for materials to support homebuilding.

Domestic housing (and urban land) shortages, coupled with environmental concerns, are also driving a market for midrise construction using wood. There is a particular opportunity for wood processing investments to mesh with established and emerging eco-systems like established clusters of Off-Site Manufacturing of housing components or complete houses. Existing opportunities for regional alignment are in Bay of Plenty, Waikato, and Northland.

Increasing the value generated by the wood processing sector by making commercial use of forestry and wood processing residues for value-add products

The forestry and wood processing sectors produce a significant amount of residues from harvest and processing which represent lost value. New technologies, and a growing recognition of the lost value this represents, have contributed to emerging investment opportunities. For example, a range of products can now be produced using wood processing residue, and bioenergy applications can viably convert forestry or wood processing waste to energy for commercial use.

There is also a potential opportunity for investment in value-added production to help address transport issues. Modular mobile solutions, for example, could be funded in remote regions, near or co-located with log supply, to enable shipment of value-added rather than raw products.

Priority regions for wood waste processing investments are Tairāwhiti and Te Tai Tokerau. Tairāwhiti is a particular priority for investment, because of its large forecast supply of logs, and its underdeveloped wood processing sector relative to other regions.

Increasing the volume of New Zealand grown logs processed in New Zealand

Given the percentage of New Zealand grown logs that are processed offshore, the PGF will consider investments that result in a greater volume being processed locally. Given sawmilling is a fundamental pre-requisite to other high-value operations, the PGF will prioritise wood processing that supports the production of higher value products such as CLT, OEL, remanufacturing etc.

However, the PGF's investment priority is in value-added wood products. Therefore, proposals for sawn timber production should be for high quality sawn timber, or for components of higher value products, that incorporate a whole-of-log processing approach.

For example, there is an opportunity for investment is to ensure existing and planned high-value product mills in the central North Island are adequately supplied with chip. Surplus chip from new sawmill capacity could be used to develop further particle-board and Medium-Density Fibreboard (MDF) plants.

Projects that have a lesser value-add proposition should also demonstrate how they would create wider social benefits, such as training and employment opportunities to support people into work or into higher paid work.

Priority areas for potential processing projects are the Bay of Plenty, Manawatū-Whanganui and, in particular, Tairāwhiti, due to the high volume of forestry in these regions.

Priorities

To best contribute to the PGF's objectives, proposals that align with the following will be prioritised.

Projects that help to move the sector, and regional economies, up the value chain and create better paid sustainable employment opportunities

While one of the objectives of PGF investment is to increase the volume of New Zealand grown logs processed in New Zealand into high quality sawn timber, priority will be given to projects that will produce value-added products. These investments are more in line with the objective of Tier 2: Sector Investments, which is to increase the number of quality jobs in a region and contribute to an enduring step change in regional economies.

The PGF is interested in investment partnerships in innovative and new timber products. However, in line with the PGF Tier 2: Sector Investments position paper, the PGF would expect these opportunities to be explored with well-established firms. Applications of this sort would also need to fully align with the principles set out at the end of this paper.

Clearwood production

An area of strategic importance to the future sustainability of New Zealand's production of high value wood products concerns the production of 'clearwood'. Clearwood is wood that is milled from trees that are pruned to ensure the timber does not contain knots, and is used for the production of high quality sawn timber.

Clearwood is necessary for the production of hardened wood, which allows New Zealand's soft wood to compete with natural hardwoods, such as teak. It is also necessary for the production of high-value Laminated Veneer Lumber products.

Due to the cost involved, and high unpruned log prices relative to pruned prices, a significant portion of forests are not currently being pruned. This has the potential to have a high negative impact on the wood processing industry long-term. If the reduction in pruned log availability continues, there will be more mill capacity required that can manage structural and industrial grade logs and smaller "clearwood only" mills are likely to continue to close.

To help ensure the sustainability of high-value clearwood milling, the PGF is interested in supporting projects that would *produce clearwood products*, where such projects address issues with the supply of clearwood logs. The PGF will not fund tree pruning itself.

Projects that benefit Māori

Māori connections to forestry and forest land are strongly cultural and spiritual, as well as commercial. Māori own over 400,000 ha of indigenous forests (6 percent of total indigenous forest) and some 238 000 ha of planted exotic forests (13 percent of total exotic forests). These forests contribute significantly to Māori socio-economic development.

Māori participation in forestry is moving from being principally a source of labour to stronger commercial involvement. Currently, forestry comprises 10 percent of Maori's total asset base. This will grow as Māori take increasing ownership and control of their land and forests.

Ngati Porou Forestry Ltd, for example, has entered into a joint venture with Hansol NZ, a South Korean conglomerate. 38 landowner blocks provided land, while Hansol provided funds to establish and manage forests. This joint venture consists of 38 forests, which cover 10,000 hectares.

Given the existing involvement of Māori in the forestry sector, the PGF's investment appetite presents a clear opportunity to increase the participation of Māori in the wood processing sector, as owners in particular, therefore putting Māori on a stronger economic base that is sustainable into the future.

Projects that benefit surge regions

Wood processing is also a strategic priority because the opportunities it presents complement the PGF's wider investment strategy. This is especially the case in relation to the PGF's focus on surge regions. Given their location primarily in surge regions, existing forestry and wood processing assets provide a strong foundation for PGF investment to achieve its goal of maximising the productivity potential of those regions.

Tairāwhiti is a particular priority for investment, because of its large forecast supply of logs, and its underdeveloped wood processing sector relative to other regions. However, forest ownership structures in Tairāwhiti means there are a limited number of corporate operations that could commit to long term wood supply agreements. The volume of wood in Tairāwhiti available for large scale wood processing is approximately two million m³ per annum.

Projects that include plans for extracting value from by-products

Where the primary component of a proposal is to produce wood products, priority will be given to integrated wood processing operations or clusters that include plans to extract value from by-products of the production process. This is especially important for projects with a low value-add proposition, such as proposals where the primary output is sawn timber.

Projects that involve well-established firms

The PGF will prioritise projects that involve mature or well-established firms with commercial experience in the sector. Firms with proven experience are more likely to be able to operate at the scale the PGF is interested in, especially through the uptake of new technologies or into new products.

The PGF welcomes applications from New Zealand as well as international investors with experience in wood processing.

Projects that benefit multiple sector participants

Projects that have the potential to benefit multiple businesses, for example, processing capabilities that are too expensive for individual firms to invest in on their own, are a priority for investment due to the wider benefits such investment is likely to produce.

Principles

- applications must demonstrate how they are aligned with the PGF's objectives and priorities for investment in the wood processing sector, as set out in this paper;
- projects will begin within the timeframes of the PGF;
- projects will be considered in the context of regions' comparative advantages, challenges and opportunities;
- projects may be considered from firms that do not require PGF project support but support to resolve infrastructure deficit(s) holding a project back;
- applications will be supported by:
 - a clear and compelling proposal, confirming long-term viability, including understanding and management of risks, evidence of market demand, market accessibility, and how the operation intends to remain competitive;
 - wood supply analysis, including long term (20-30 year) analysis of where the wood will come from, how the proposal will impact wood supply within region(s), and whether co-location is viable;
 - infrastructure analysis, including energy, emission mitigation and transport requirements, and the existing eco-system of wood processing;
 - if the proposal relates to building componentry or prefabrication, demand and pricing analysis, forward orders as well as sales projections by region; and
 - appropriate labour market analysis;
- firms will have already sought private sector funding, and provided a clear explanation as to why it was not approved;
- projects will not be funded where other appropriate sources of government support are available with the exception of projects that were declined KiwiBuild support);
- the project will include clearly identified public benefits relating to, in particular, Jobs and Sustainable Economic Development, Māori development; Social Inclusion and Participation; Climate Change and Environmental Sustainability; or Resilience (infrastructure and economic);
- projects should generally have a minimum 50 percent co-contribution (applications with potential to generate significant public benefit may be exempt from this requirement);
- investments will be consistent with New Zealand's international obligations.

Relationship to other agencies and areas of investment

PGF investment in the wood processing sector is part of wider government initiative to foster a productive and sustainable wood processing sector that increasingly contributes to prosperous regional economies. Key agencies in this work are Te Uru Rākau, the Ministry of Business, Innovation and Employment, New Zealand Trade and Enterprise, and The Ministry of Housing and Urban Development, and Kāinga Ora.

PGF investments in the wood processing sector will contribute to, and inform, this wider work, including:

- supporting Kāinga Ora objectives;
- Te Uru Rākau's forestry strategy; and
- the development of an Industry Transformation Plan for the wood processing and forestry sector, that:
 - induces at-scale investment in primary and secondary forestry production focused on market ready products;
 - maximises regional, economic, environmental and health and safety benefits;
 - identifies opportunities to develop the forestry sector at the heart of a circular, bio-based, carbon neutral economy through the completion of the long-term, sector-led development of a forest strategy for Aotearoa New Zealand.

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