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WOOD COUNCIL OF NZ INC

# Prosperity from Forestry and Wood Products



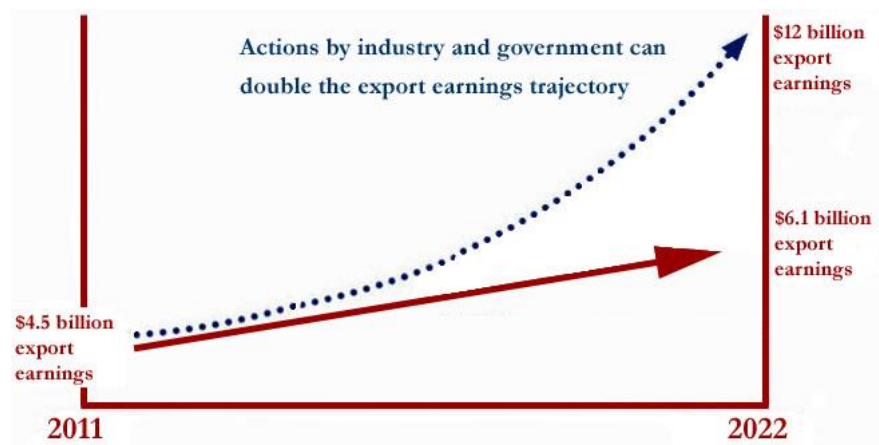
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## The Prize

A global shift in the framework for economic growth and national prosperity is taking place. Burgeoning populations, increasingly scarce natural resources and the pressing need to address and adapt to climate change, mean new economic growth models are required. The move to materials and energy that are renewable and recyclable is the new reality and will be as transformational as the industrial revolution. It will also significantly impact future competitiveness of firms and economies, and shape consumer preferences. The forest and wood products sector is almost “custom designed” to fit this new world order - a business model of taking rain and sunlight to produce a natural, renewable fibre that is then turned in to a myriad of sophisticated products and customised solutions

with a net benefit to the environment.



The New Zealand forestry and wood products sector is already our third largest exporter, with a value of NZ\$5 billion annually and a direct employer of around 20,000 full or part-time workers. All from just 6% of NZ's land area. But it can be so much more.

The Wood Council of New Zealand's Strategic Action Plan (SAP) is to increase export earnings to around \$12 billion by 2022. This will come from securing a sustainable supply of wood, shifting the emphasis away from commodities, and investing in jobs, skills, R&D and high value products that are made in New Zealand.

The forest industry can deliver:

- A boost to the Business Growth Agenda;
- Increased economic diversification and resilience;
- Regional development and jobs;
- Waterways that meet national standards and public and Iwi expectations cost effectively;
- Greater primary sector resilience to a changing climate and more frequent extreme weather;
- Improved biodiversity and a reduced environmental footprint;
- Iwi land development consistent with cultural aspirations.
- Construction materials that are energy efficient, earthquake tolerant and an established form of carbon capture and storage.

The industry is pursuing opportunities but the prize also requires changes to public policy settings.

# The Government toolkit to deliver the Strategic Action Plan

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## Ensure security of wood supply

- Develop a clear, coherent policy framework for sustainable long term economic growth and therefore investment in forestry and wood processing;
- Introduce policy and regulation that recognises the carbon credit value of wood and paper products in line with UNFCCC carbon storage agreements;
- Change tax policy to enable woodlot owners to aggregate wood supply without penalty.

## Encourage investment and the modernisation of plant and equipment

- Introduce accelerated capital depreciation rates and encourage recapitalisation of processing plant and adoption of automation and precision technologies;
- Provide entry financial assistance for the design of high-value processed timber construction buildings.

## Streamline regulations and building standards

- Build on the broad support already achieved to implement a National Environmental Standard for plantation forestry for those issues that are not addressed by current RMA reforms;
- Review and rationalise the building codes and standards and implement a system that ensures they remain current and easy to use;
- Redirect the building levy towards updating and simplifying building standards as part of a partnership approach with industry and implement processes for regular updates.

## Facilitate greater R&D to increase innovation

- Align government's R&D policy for wood processing with Callaghan Innovation's focus on increasing high-value manufacturing productivity;
- Provide high funding ratios in forest and wood processing sector R&D in expectation of expanding the public good benefits provided by the sector;
- Support R&D assessment of renewable biomaterials and bio-energy to improve New Zealand's export earnings, economic resilience, energy security and environmental credentials.

Support a skilled and safe workforce

- Support forest training and education providers including partial qualification training;
- Support industry initiatives to improve workplace safety.

Develop regional infrastructure to raise productivity

- Facilitate the extension of the network of roads that will accommodate High Productivity Motor Vehicles;
- Introduce more flexible arrangements to allow local authorities to fund rural roads over a longer period of time;
- Differentiate road service based on a national classification system;
- Improve port services to reduce costs for wood and wood fibre products.

Establish policies to achieve sustainable use of land

- Ensure that policies designed to achieve good environmental practice (or discourage bad practice), treat all land uses equitably; and, where appropriate, attach a monetary value to land use activities and ecosystem services so that the true value to the economy, including on existing investments, is reflected;
- Where setting limits on water pollutants ensure this applies equally to all land use activities rather than allocating on the basis of historical output levels.

Improve international market access and trade terms

- Increase the priority given to wood products in international trade negotiations including a review of existing and future FTA agreements (notably the scheduled China FTA review in 2014) to identify and address impediments such as differential rates of VAT on Chinese log and sawn wood imports;
- Act to restrain the trade in illegal wood products and provide national sustainability assurance to NZ's forest and wood products export markets;
- Pursue central bank options to reduce currency volatility from speculative trading and minimising the rate differentials that promotes the carry trade.

Encourage wood use domestically

- Promote awareness of engineered timber products and increase the supply of skills in timber design in line with NZ Wood;
- Introduce a green procurement policy requiring that wood is considered as an option for government buildings;
- Improve public procurement policies for sustainably sourced and recycled domestic wood and paper products to recognise the whole of life environmental benefits compared with other products.

## NZ forest and wood products potential

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New Zealand is a world leader in primary production coupled with biosecurity protection. Any gain in productivity multiplied by our primary product volumes, is a big deal. Commercial plantations typically out-perform dry stock farming in contribution to GDP per hectare by a margin of 2 or 3 times. We need to achieve the best land-use mix for New Zealand to deliver not only economic resilience and regional development but to underpin environmental sustainability and New Zealand's green credentials. Forestry offers a compelling and unique opportunity to capture new wealth for the country, but the status quo will not deliver on this promise.

Global prospects for the sector are substantial:

- Increasing economic activity in Asia will drive substantial demand for sustainable packaging, tissue, high tech papers and other fibre products;
- China's annual wood fibre deficit will rise to around 150 million m<sup>3</sup> by 2020 despite higher internal production;
- Supply will be constrained by reducing hardwood volumes and the impact of certification and legality requirements along supply chains;
- The bio-economy is at hand, with the manufacture of bio-materials, wood chemicals, dissolving pulp, and liquid fuels at integrated production facilities.



The industry has pursued transformational opportunities identified in the Action Plan including:

-  Commissioning a comprehensive “WoodScape” review of traditional and emerging wood processing to highlight opportunities from applying new technologies and increasing margins from residues such as through pharmaceuticals, fuels and biomaterials;
-  Undertaking a NZ Sawmill Benchmarking Survey for productivity and quality gains;
-  Maintaining a NZ Wood promotional drive with a specific focus on Christchurch and the provision of training and education seminars to architects and engineers;
-  Securing multi-million dollar joint government-industry funding for a collaborative investigating liquid biofuel development to commercial scale;
-  Restructuring industry representation to improve effectiveness expanding the resource and moving to implement a commodity levy on forest growers to fund pan-sector good activities;
-  Producing science and innovation strategies and streamlining science programmes and management accordingly. Providing additional research funding to compensate for reduced government leverage;
-  Securing joint funding to pursue fumigation reduction technologies;
-  Initiating health and safety improvements including breaker-out certification, an Approved Code of Practice, and an independent safety review;
-  Embarking on the establishment of a NZ Timber Quality Scheme and a National Standard Chain of Custody certification.

Industry is focused on areas where it can increase productivity and reduce risk. There are complementary measures that government can take to capture the gains from forestry.

-  Lifting net returns by (x) since 2011;
-  Undertaking a NZ Sawmill Benchmarking Survey for productivity and quality gains;
-  Increased mechanisation of forest operations

## What is needed?

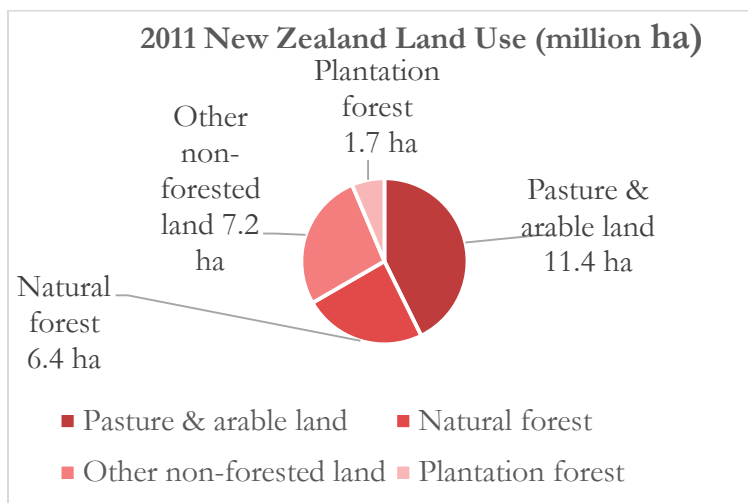
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Simply put, the key outcomes needed are:

- More investment
- Reduced impediments to productivity
- More utilisation of wood

### More investment

We produce more wood per capita than Canada and a lot more is already in the ground. The 2005 New Zealand harvest was 17.5 million m<sup>3</sup>. In the 2012 year it was 26 million m<sup>3</sup>. The 10 year forecast is around 35 million m<sup>3</sup>. That is equivalent to logging trucks, bumper to bumper, 12 abreast, from Cape Reinga to Bluff. There is a difference, however, between a more productive tree (which is happening) and the production of more trees (which is not happening). On current trends less than 5% of the increase in production will be from an expansion in area.



The industry will benefit from new planting in the right areas. Significant areas of rural New Zealand are contributing little or no return to landowners or the economy but could do so if planted in trees. This includes hundreds of thousands of hectares of Maori owned land.

Similarly, if the resource surrounding existing processing plants is increased this could provide the confidence of supply to enable expansion – either greenfields or brownfields and, more importantly, associated economies of scale.

Processors also need confidence forests will be replanted. The most fundamental investment driver for wood processing investment is security of supply and government policies to encourage the supply of environmental services, including carbon will also act as a driver of wood processing expansion.



A viable processing sector is thus both reliant on, and an inducement to, forest planting. It provides insulation from more volatile export markets, is a closer destination for many owners of small forests and like forestry, wood processing contributes significantly to New Zealand’s sustainability goals:

- The long tradition of utilising wood processing residues as biofuel for heat and power generation by wood processors enables a reduction in the NZ energy demand;
- Wood processing and wood products contribute to a “low emissions” economy;
- Wood offers a structural building material, even for multi-storey structures, that is low in embodied energy as well as a net carbon store.

The returns from processing a cubic metre of wood on-shore are around six times more valuable to the economy than the same volume exported in raw form. But, like forest planting, the scale of wood processing is sub-optimal to ensure this happens.

The benefits for government from new planting are even more compelling and the potential target land is much broader than the area of interest to the industry. This is because production forestry complements the native forest estate and delivers similar societal benefits in areas that are becoming increasingly costly for New Zealanders. These are:

- Erosion control;
- Resilience to adverse climatic event (droughts, flooding, snow and hailstorms, etc.);
- Fresh water quality restoration;
- Wildlife corridors;
- Public recreation facilities;
- Greenhouse gas emissions reduction;
- Fossil fuel reduction.



The \$20 billion private forest sector delivers these services for free and will continue to do so in areas replanted but the commercial sector will not undertake new planting or replanting to the extent New Zealand needs, particularly in a world of greater climatic extremes. Government will have to actively encourage this level of planting and in some areas this will likely involve species other than Radiata pine. Land management intervention costs to government will be reduced as a result of afforestation of marginal land. Furthermore, use of private sector capital to establish new forests is one of the least-cost means available to the government to “buy time” for the New Zealand economy to adjust to a low-carbon future and Without this there is a danger that forestry will become part of the problem rather than part of the solution.

Investment decisions are made by individuals not industry bodies or government. Investment confidence for brown-fields and green-fields wood processing, new forest planting and replanting uniquely hinges on clear, equitable and stable forest policy settings over 10 election cycles. We cannot control international prices, but we can ensure an efficient and supportive operating environment domestically through good policy.

## **Reduced impediments to productivity**

Industry has an on-going focus on reducing business cost to remain competitive. Increasing use will be made of GPS, remote sensing, computer simulation and optimisation, and other applications. Harvesting on steep land is projected to increase from the current level of 50% at around 1%/yr, and cable logging comprises 60% of the costs of log delivery to mill or port. The solution is mechanical harvesting and this will become the norm within a generation. As well as delivering substantial productivity gains this shift will help to greatly reduce workforce health and safety risks, and require a different skill set.

The sectors have strategies aimed at delivering gains from science and innovation. These will drive investment priorities and determine where industry will invest and partner with government. In forest growing, for example, it is feasible to achieve an increase in productivity of an additional 10 cubic metres/ha/yr by 2025 – i.e. about a 50% increase. Forest growers are now moving to funding under a commodity levy, but this concept does not yet have traction with equally diverse wood processors. R&D participation by wood processors has been limited by their inability to co-ordinate funding support.

The areas where government can support productivity gains are:

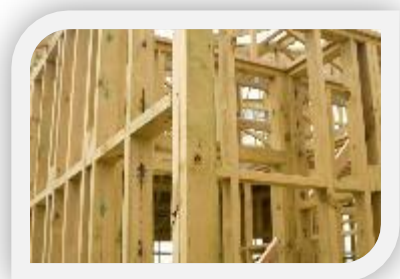
### ***i. Infrastructure***



Transport is a major cost for growers and processors. Industry supports the government's roads of national significance funding, new heavy vehicle productivity legislation and review of road user charges, though all need more work to capture the intended gains. The industry also endorses the well-supported proposal by the 2012 government Road Maintenance Task Force to further differentiate road service based on a national classification system. In common with other primary sectors, forestry is reliant on a network of secondary roads. In many districts, forestry's use of these roads is atypical – heavy demand over a short period during harvest. This pattern of use does not easily fit with rates payments over a 30 year forest rotation. While forest owners have worked with district councils to come up with some innovative solutions, greater funding flexibility for councils is needed.

At key seaports capacity is strained and a conservative approach is taken by the owners to investing in expansion. Greater-on-shore processing would help this situation.

## *ii. Building Standards*



The current complicated and duplicative system is acting as an impediment to the use of timber products, particularly sophisticated, high-value, engineered timber that is well suited for pre-fabrication systems that lower building costs. Over 600 building standards are over 7 years old and are obsolete. An urgent redirection of the building levy to provide funding for change is warranted.

## *iii. Biosecurity*



Protecting the forest asset is a top priority and the forest industry uniquely invests significant resources annually in a pest and disease surveillance system that is dovetailed with the government surveillance programme. The industry is also heavily involved in biosecurity research. We support the principles of the GIA (Government Industry Agreement) approach but to be successful it is imperative that government demands and rewards risk mitigation commitment by the primary sectors and holds

accountable those who exacerbate the risks, including government, where biosecurity operations have failed, or there has been inadequate funding of border and pre-border control.

It should also be noted that a vibrant forestry sector helps mitigate the exotic disease risks associated with a ruminant-dependent economy.

## *iv. Market Access and Competitiveness*



Differential treatment between raw and processed materials significantly disadvantages export growth of value-added wood products. NZ exports 90% of its logs in raw form to countries with import policies that favour log imports and their own domestic processing industries. Trade policy should achieve progress across all sectors rather than agreeing to trade-offs that favour one sector over another. The Free Trade Agreement (FTA) agreed with China is not yet delivering what it should be for the wood products

industry. Equity with competitors is also needed. Chile is a major radiata producer and competitor to New Zealand but has secured a more favourable FTA with South Korea for example.

The other key concern is the volatility in competitiveness due to the fluctuating value of the NZ dollar. This is a common issue for all exporters and ways to reduce the attractiveness of trading in the currency, as opposed to trading in goods, must continue to be explored.

There is inadequate recognition in public procurement policies for sustainably sourced and recycled domestic wood and paper products. The independently audited, international certification schemes that the forest industry operates under provide unequalled levels of sustainability assurance compared with other construction materials but frequently there is inadequate comparison of the full life cycle benefits of wood versus other products.



**v. *Capital Costs***

The Woodscape Study confirmed that the wood processing businesses with the greatest chance of financial success require large, complex, manufacturing plants employing innovative technologies. Before the necessarily large investments with long pay back periods are made in such plants, investors need to have fair access to compete in export markets, or government support to offset the costs of punitive tariffs on processed wood products. Government can lower the hurdle rate by way of capital grants, such as those used to kick-start irrigation schemes, and by an adjustment in depreciation rates.



**vi. *Training, Education and Safety***

All New Zealand primary sectors face a similar challenge in attracting and retaining people in employment. The skill set required by the industry is expected to change over time and mutual government/industry support of our industry training provider, Competenz, will be fundamental to setting and delivering the skills identified through workforce planning. Funding support for skills training should be strengthened, regardless of whether this leads to a full qualification.

Industry has a role in providing a safe and supportive work place. The Forest Owners Association and Forest Industry Contractors Association have worked closely with ACC and MBIE to introduce significant changes to leadership, culture and practice. More is needed and the industry will look to continue partnering with government to co-fund initiatives.

## More utilisation of wood

The products from, and applications for, wood are opening up a new world that New Zealand can be at the forefront of. Cross laminated timber (CLT), optimised engineered lumber (OEL) and engineered strand lumber (ESL) are good examples of new innovative engineered wood products. The first CLT production facility in Australasia was built last year in Nelson and more are underway. This technology is revolutionising multi-storey wooden apartment construction worldwide.

Future New Zealand urban multi-storey construction will require hazard (fire, earthquake) resilient properties. When added to the environmental benefits, including reduced carbon emissions targets, the government has a role to be promoting a renewable, home-grown, resource. The report ‘*Greening New Zealand’s Growth*’ recommends:

*“The government should designate construction as a ‘green growth sector in relation to Public Sector procurement. Purchasing in these sectors will then be tied more explicitly to the sustainability principle and a small number of priority environmental factors (for example GHG emission reduction).”*



The report emphasises Christchurch – a place where wood performance has excelled. The benefits have been sufficient for wood procurement policies to be introduced in other countries such as the US, Canada, France and Japan. In some cases these go further than just a requirement to consider wood. New Zealand should introduce a procurement policy requiring timber to be considered as an option for government buildings.

There are also strong environmental and strategic reasons for government to address the reliance on diesel imports and the Maui gas field. Bioenergy could offer additional revenue and business resilience for land owners and it is important that government facilitates the investigation of solutions in a New Zealand context. EECA has worked with the industry on this, but a clear bioenergy policy commitment by government, particularly for diesel-fuelled transport, is needed.

## Conclusion

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The forest and wood products industry has the ability to deliver renewable and resilient growth. There are a number of areas where government can, and should, have an interest in facilitating the development of the forest and wood products industry. It can do this by delivering better policy, minimising regulatory barriers and publicly committing to and communicating the value it places on the industry.

The status quo alternative provides ample incentive for action - a continued focus on commodities, reducing forest cover, an economy tied to the fortunes of the dairy sector, a degrading rural environment with ever increasing clean-up costs, slow erosion of international clean green credibility, loss of ground to competitors in the technology revolution, continued reliance on ever-increasing fossil fuel costs, and continued use of non-renewable construction materials.

The overall government position with respect to forestry needs to be aligned with the Wood Council of New Zealand strategy to help us achieve a mutually desirable prize.

1 November 2013

