

An aerial photograph of a vast landscape. The foreground and middle ground are dominated by rolling hills covered in dense, dark green forests. Interspersed among the forests are patches of lighter green, open fields and small clusters of buildings. In the distance, a large, calm body of water, likely a lake or bay, stretches across the horizon. Beyond the water, more mountain ranges are visible under a bright blue sky with scattered white clouds. The overall scene is a mix of natural beauty and human settlement.

**Improving the long-term outcomes for forestry:
A document for discussion**

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Prepared by FOA for NZ Forest Growers

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Purpose

This document is intended to provide a roadmap for our forest growing sector and to clarify our priorities and drivers for other key stakeholders such as science providers, government, and the wider industry. Although coordinated by Forest Owner Association (FOA) staff, this is not a FOA piece of work, but is on behalf of all forest growers, large and small.

The document will also provide a touchstone for the various work stream committees which the FOA and the Farm Forestry Association (FFA) operate. It will guide, and be guided by, their own more specific strategic efforts.

The work to date, including this paper, has benefited from a wide range of contributors but can be expected to evolve further as a wider input is received. It has a high-level focus and is not intended to be prescriptive in setting quantified goals that are dependent on commercial investment decisions. It is intended to provide a strategic view of factors that will influence the forest growing sector and it will guide the allocation of resources by the FOA and FFA.

The future forest growing environment will be different from today

The forest growing sector will be shaped by two key influences over the next three decades.

Technological changes have transformed parts of the sector over the last 30 years and offers the same potential over the next 30 years. It offers improved safety and working conditions through automation and robotics; it offers the ability to accelerate genetic improvement and to respond to threats and new opportunities more rapidly and more cheaply through new biotechnology developments and it offers the ability to gather and process information on a scale unheard of until recently. Technology also presents disruptive threats such as mass scale 3 and 4D printing of natural cellulose fibres produced in bio reactors and competing biomaterial products to solid wood.

Changes in the wider environment for forestry particularly in response to climate change, the flow-on domestic policy settings and the influence of these on consumers and the community will increasingly influence forest growers in the future. A world-wide transition to low carbon economies presents enormous opportunity for forest growers. Forest growing is being encouraged by governments for environmental and social reasons including the Paris Accord and the Billion Trees programme in NZ. Forests provide many other services and benefits besides wood production, and wood remains valued as a traditional centuries-old construction material. A strong advantage over other materials is that wood can be grown sustainably with a low environmental footprint. Forests also provide feedstock for an increasing range of biomaterials that will be favoured in a low carbon world.

The same drive to low carbon economies presents challenges. Forest growers are heavily reliant on fossil fuels to harvest forests and transport high volume low value products to often distant markets.

As a part of our changing environment, **societal expectations are shifting** and will increasingly influence how we conduct our business. Investors, consumers and society are wanting to know more about how an organisation acts and impacts the environment and community. They will have a low tolerance to activities that present risks to the well-being of workers and adjacent communities. Industries using manual labour in difficult conditions and with poor health and safety or environmental performance will struggle to attract high calibre people and constraints will increase. Commercial forest growing is totally reliant on herbicides and pesticides yet community pressure is growing against the continued use of these products. These changes need to be built into all that the forest growing sector does in the future.

The impact on how we do business

Forests will be providing a broader range of products and services. Timber will remain an important mainstay, but its relative value will have diminished alongside a range of other products and services. Forest growers will have more options for generating income. This parallels a transformation in the processing part of the value chain where the emerging bio-economy will see processing facilities producing much more than just wood products.

Many traditional drivers for forest growers will remain the same - growing wood products better and more efficiently than anyone else. We will need to be more aware of our customers operating environment, and prospects. This will drive us to better understand and manage the downstream forest to market value chain. At times, it will also mean trade-offs.

Genetics will be transformational and will need to play a much more prominent role than it has to date if we are to remain internationally competitive. The ability to respond quickly, whether to markets or environmental challenges will rely on the inclusion of advanced genetic technologies in our toolbox.

The climatic effects of global warming will present forest growers with new challenges – new pests and diseases, new weeds and more volatile weather systems. The increasing frequency of high energy storm events is already testing current forest managements systems and in a number of areas threatening forestry's social licence to operate. A warming climate, changes in humidity and biosecurity risks are increasing threats to our *Pinus radiata* mainstay.

Increasingly landowners will manage “their” resources in partnership with society, and in particular, iwi. The license to operate entails many facets including social, cultural, consumer, customer and investor expectations.

Setting the sector up for the future

A Forest Growers Strategy workshop was held on 13-14 February 2018. The purpose of this workshop was to identify where the sector will need to be in 30 years if it is to remain a cornerstone industry for NZ, and the key areas of focus needed if we are to realise that future.

What New Zealand forestry could look like in 30 years

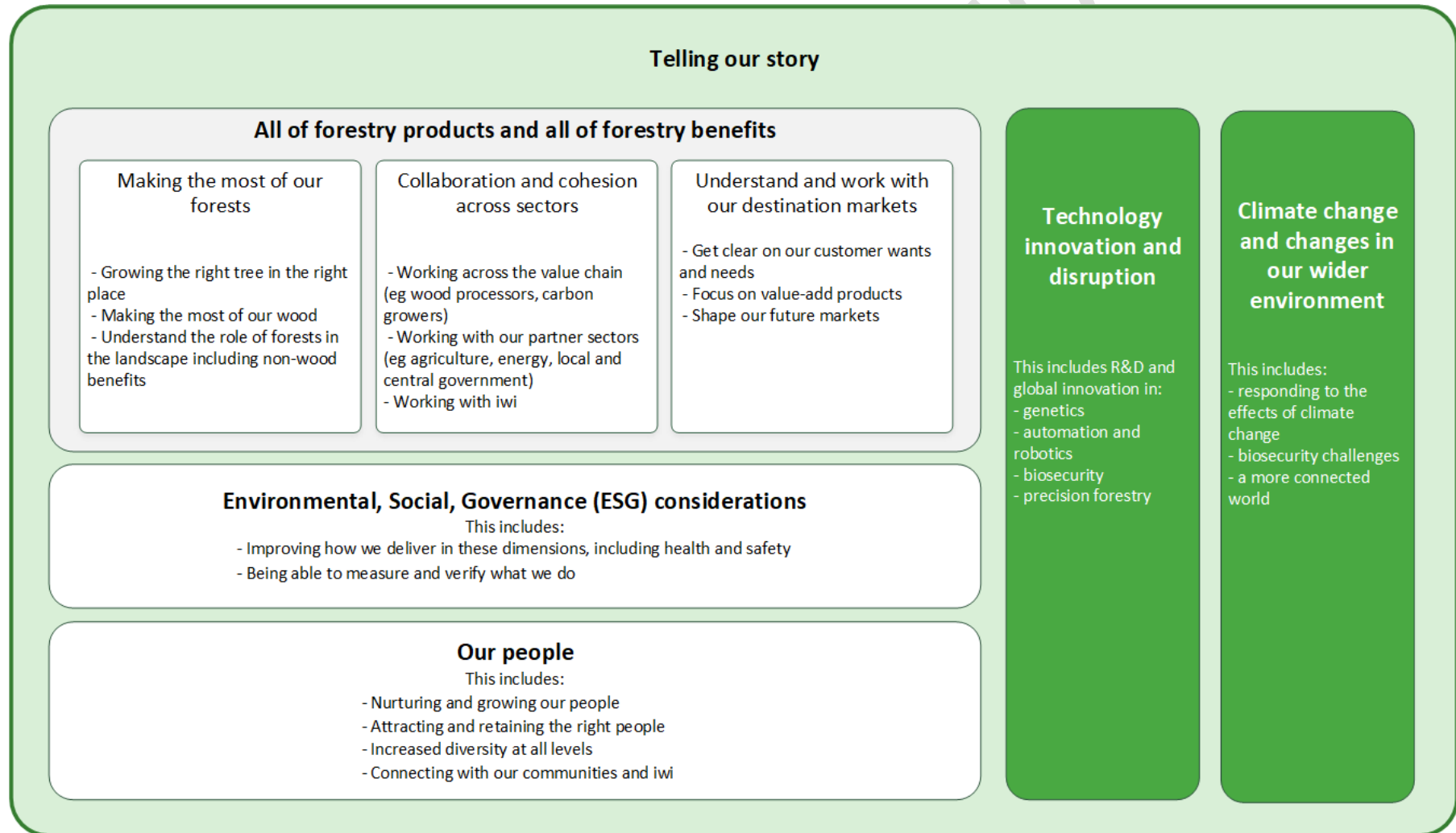
The core themes and key outcomes for our sector to remain viable, vibrant and progressive as identified in the workshop are set out in the table below.

Working with the full tree and full tree benefits	<ul style="list-style-type: none"> • The full spectrum of benefits are recognised (monetary and non-monetary) across the forestry sector • We have increased our resilience through diversification in our planting of species • We think about the full tree and forest products, that is the fibre – not just the logs
Our products	<ul style="list-style-type: none"> • Our products are value-add, a premium is being paid for NZ branded wood products • World and domestic markets want and value our forest products • We grow high quality, cost efficient fibre that the customer demands • Wood is at the centre of our construction industry • We have planted species in our forests to meet different needs and products
Our performance	<ul style="list-style-type: none"> • The NZ forestry growing industry is competitive, sustainable and profitable • The NZ forestry processing industry is strong and profitable • We are number one in the world for our reputation as a forest investment
Research, development and technology	<ul style="list-style-type: none"> • We are in partnership with science, and that partnership adds value to the forestry sector • NZ forestry is recognised internationally for innovation and uptake of new technology
Our people	<ul style="list-style-type: none"> • Forestry is safe - we look after our people every day • We attract (and keep) the right new people to grow the industry • We are an industry, and employers, of choice • We have diversity across the industry and in our leaders
Our community	<ul style="list-style-type: none"> • We have a social licence to operate – this is based on measurement and verification of the environmental, social and governance (ESG) considerations. • The forestry industry is held in high regard by the NZ public (see below about many people owning trees) • We have strong community connection and endorsement – forestry is “loved and admired”
How the industry is set up	<ul style="list-style-type: none"> • We have a diverse range of market opportunities – we are less reliant on log exports • We have a more integrated sector • There are different investment opportunities, a high proportion of New Zealanders own trees

Key areas of focus for the forest growing sector to achieve its 30-year goal

To achieve the end outcomes identified above, we identified that the sector will need to focus on the areas set out in Figure 1. The two pillars represent the external drivers and opportunities we must respond to if we are to remain relevant; the rows and boxes represent the matters we can control.

Figure 1 Focus areas to set the sector up for the future



What we need to do now – our priorities for action

The following priorities for action have been developed from the workshop and the areas of focus above. This is where we will need to put our effort if we are to meet the challenges and grow the place of commercial forestry in NZ. These are mutually reinforcing. All priorities will need to respond to the external drivers and opportunities.

1. Achieve greater understanding and utilisation of wood and forest services

We need to determine and promote the full value we can accrue from our forests – not just from a commercial perspective, but also from an environmental and community good perspective. Actions could include:

- Promotion of wood for –
 - Mid-rise construction
 - Mass timber application
 - Higher-quality, value-add products e.g. modification.
- Promotion of our forests for –
 - Environmental services including carbon sequestration, water protection, biodiversity
 - Community services including employment, education, and recreation.

Links to focus areas

All of forestry products and all of forestry benefits especially Making the most of our forests

2. Better understand our customers and markets

To pitch our products into a world awash with options, we need understand our customers and our markets better. Actions could include:

- Analysis of our current markets and products – both ours, and what we are competing with
- Assessment of market trends including where our new markets might be
- Engagement with customers – both current and future.

All of forestry products and all of forestry benefits especially Understand and work with our destination markets

3. Attract, engage and retain the right people

Our workforce is ageing. To position our sector for the future we need to focus on increasing the attractiveness of our sector to a workforce that is increasingly diverse and has a much greater range of choices available. Actions could include:

- Improving our safety culture
- Increasing and improving our training opportunities and qualifications so that we attract and retain the right people and the right mix of people.

Our People

4. Improve our performance

To protect our licence to operate and the profitability and sustainability of the sector, we must lift our game across the sector as a whole. This includes what we do, as well as how we do it. Actions could include:

- Collaborating with science and continuing to undertake research and development into:
 - Our management and forest practice, including short rotations
 - Biosecurity issues – both today's and tomorrow's
 - A genetics programme that significantly lifts our performance
 - Clarifying the role of genetic modification and opportunities
 - Improving the resilience of our forests
- Providing evidence for our environmental performance and footprint and other ESG components
- Managing our poor performers
- Reducing harm to our workers.

*ESG Considerations and
Our People*

5. Tell our story

We need to develop and implement a communications strategy to ensure we can tell our story to NZ and to the world. This could provide a platform for growers to use and support, using media appropriate to our changing audiences and needs. This could include being able to communicate:

- the qualities and uses of our wood (e.g. mid-rise timber)
- advocating for a wood procurement strategy
- our environmental and societal goods, to improve and protect our social licence to operate
- the value of forestry as a career.

All focus areas especially the wrap
around *Telling our story*

Next steps

This document provides a high-level roadmap for the forest growing sector for the future. To ensure this remains relevant it will be refined, tested and revisited from time to time. It will provide guidance for more focused strategic planning in areas such as science and innovation, biosecurity and industry communications.