

A FOREST POLICY FOR NEW ZEALAND

Cherishing our trees and forests, which enhance our well-being, our environment and our prosperity

Abstract

Five long-term policies are presented to recognise, protect and enhance the ecosystem and other benefits that trees and forests deliver to the New Zealand environment, economy, society and culture. A number of strategic actions are described that, if implemented in the short to medium term, will help to achieve the policies.

The policies embrace all types of forest in New Zealand (conservation, protection and production), all tenure types and all species (both indigenous and introduced).

Introduction

The Forest Policy for New Zealand was initiated due to concern amongst forestry professionals that the full potential of New Zealand's forests was not being achieved because of uncoordinated, issues-driven, short-term policies relating to matters as diverse as land use, water and erosion issues, climate change, pest control, biosecurity, biodiversity, landscapes, building regulations, trade policy and long-term research. Forests are long-lived, ranging from (relatively) short-term commercial forests taking 2-3 decades to reach maturity up to several hundred years in the case of New Zealand's indigenous forests.

Forests, more than other land uses, provide society with significant public benefits in addition to those that accrue to the owner of the forest ("owner benefits"). Public benefits include carbon sequestration and storage, erosion and flood mitigation, maintenance of water quality, biodiversity, recreation, landscape, spiritual and cultural factors and more. Owner benefits may include the sale of timber and non-wood products, fees for hunting or recreation, payments for the services provided to society (such as carbon credits) and lifestyle choices. The objectives of the owner may range from a commercial approach to maximise the rate of return received from the investment through to preserving biodiversity and other benefits for the community.

Where forests are publicly owned (for example by central or local government), the costs of ownership are offset by the public good benefits that are provided by the forests and enjoyed by society. Policy and regulations will generally recognise the benefits of publicly owned forests. In New Zealand, there is significant public ownership of forests, such as National Parks and other forests managed by the Department of Conservation. These are subject to their own legislation and policies that recognise the trade-off between the costs of protection and management and the public benefits provided.

With privately owned forests, including significant areas of Māori land, owners have choices of continuing or expanding their forests or of changing to alternative land uses or investments. Frequent and uncoordinated changes in policy and legislation can lead to reduced investment, removal of forest and changes in land use to those that appear less affected by the regulators. The actual and perceived short-term risks of forest investment divert funds into other activities. This then reduces the benefits that New Zealand, as a nation, derives from the country's forests, whatever their tenure.

The combination of the national benefit that a country receives from its forests, together with the longevity of forests is what leads many countries to have a national forest policy. Such policies cover all types of forest (commercial, non-commercial and conservation), all forest species (indigenous and

introduced), all land tenures (publicly and privately owned), and extend to reserves, urban forests and street trees. The policies provide guidance for regulations, legislation and decisions that impact on forests. They are focussed on protecting and enhancing the economic, environmental, social and cultural benefits that forests deliver to the nation and they provide security against short-term and frequent policy changes that concern private individuals and entities investing, or considering investing, in forests.

But New Zealand does not have a national forest policy.

As a result of these concerns, a group of experienced forestry professionals formed “The Forest Policy Project” and, acting under the auspices of the New Zealand Institute of Forestry (the body representing forestry professionals in New Zealand), decided to produce a New Zealand forest policy. The project commenced in 2014. Reports from four working parties were presented to a well-attended conference in August 2015. Following that, a draft policy was produced in July 2016. This was revised by a professional editor and the resultant document of July 2017 circulated widely for comment. 33 submissions were received and considered by the working group before producing this document. The policy is supported, but not necessarily fully endorsed by organisations whose members work with trees and forests and their products.

Although most of the work has been provided on a voluntary basis, funding provided by the Forest Growers Levy Trust, the NZ Institute of Forestry and the individuals involved with the project, is gratefully acknowledged.

Apart from a statement of the long-term policies, the document also sets out a number of strategic actions that, if implemented in the next five-ten years, are expected to help achieve the policies.

It is the hope of those who have been involved in preparation of the forest policy that politicians, officials and others will use the policies set out in the document to guide decisions and legislation that affect trees and forests, the products both tangible and intangible that arise from them and the people who own, manage, work and recreate in them.

Section 1: A New Zealand forest policy

Policy 1: Protect and enhance the many significant benefits trees and forests provide to the New Zealand environment, economy, culture and society through developing and implementing a comprehensive, long term and evidence-based national regulatory and decision making environment.

Discussion: Four further policy statements, each with strategic actions to ensure success, are set out in sections 2-4.

The wide range of benefits provided by trees and forests include:

- **Erosion mitigation.** Woody vegetation intercepts greater quantities of precipitation than other vegetation. A proportion of this is evaporated and transpired, meaning less rain directly reaches the soil under forest and reaches it with less force than on unprotected soil. This reduces the erosion effect of heavy rain. Woody vegetation also has more extensive and deeper root systems than other vegetation, adding further stability to the soil.
- **Water quality.** Water arising from well managed forested catchments is generally of a higher quality than from other land uses due to direct shading of water margins and reduction of nutrient and bacterial input. As a result, such water generally requires less treatment to make it fit for human use and is a better habitat for native aquatic organisms.

- **Biodiversity.** Forests, particularly indigenous forests, are home to the majority of New Zealand’s land-based indigenous biodiversity and are critical for sustaining many ecological functions.
- **Climate regulation.** Forests provide a number of benefits for climate change mitigation:
 - Forests are an important store of carbon, extracted from green-house gases in the atmosphere and stored in woody tissue. Increasing the quantity of woody vegetation helps reduce greenhouse gases in the atmosphere;
 - Well managed and healthy forests can help regulate peak water flows in heavy rainfall events, reducing the damage that floods can cause to down-stream properties and infrastructure;
 - Forest soils also store carbon. Maintenance of forest, in perpetuity or over successive rotations, prevents loss of the carbon to the atmosphere;
 - Trees in towns and cities can help lower temperatures through shade;
 - Forest products continue to store the carbon extracted from the atmosphere by the trees they are made from. Increasing the use of wood products will add to the stock of carbon removed from the atmosphere, particularly if forest is re-established on the harvested areas;
 - Energy produced from wood provides a renewable alternative to the use of fossil fuels;
 - There is substantial evidence that wood and wood products in buildings not only store carbon but also reduce the use of other materials with greater “embodied energy”, again providing an option for a reduction in the use of fossil fuels.
- **Recreation and tourism.** New Zealanders use forests for recreation such as tramping, cycling, hunting, fishing, studying New Zealand’s flora and fauna, photography and painting. Forested landscapes are part of the attraction for tourists to New Zealand and feature in New Zealand films.
- **Public health benefits.** Apart from the health benefits of using forests for recreation, an increasing number of studies are showing health benefits for people living close to trees and forests and also for those who work in buildings with exposed wood surfaces.
- **Employment.** Commercial production forestry, including processing, employs more than 25,000 people. Many more people are employed in and associated with conservation and protection forests, national parks, and other forest reserves, both as managers and as providers of ancillary services such as recreation and tourism ventures.
- **Forest products.** Trees and forests provide a wide range of renewable, recyclable and biodegradable products that are used by society. These include:
 - Construction materials such as sawn timber, manufactured boards made from solid timber (such as cross laminated timber and plywood) or from reconstituted wood fibres or chips (such as medium density fibreboard);
 - Pulp and paper products including writing paper, newsprint and packaging;
 - Bioenergy for heating and transport. Solid wood can be used as firewood or manufactured into specialised fuels such as charcoal, pellets and liquid fuels;
 - Medicines, food and chemicals, for example nuts, berries, meat, honey and bioplastics;
 - Genetic resources. The diversity of genetic resources for agriculture and forests plays a crucial role in meeting basic human food and nutritional needs. It is essential for maintaining and enhancing the efficiency and the resilience of production systems, as

well as contributing to sustainable diets and to the delivery of ecosystem services, such as pest and disease regulation;

- Cultural and artistic material such as the wood, dyes and other materials used in Māori meeting houses and costumes.
- **Benefits to the economy.** Exports of products from New Zealand’s plantation forests earn more than \$5.5 billion annually and are the third biggest merchandise export. In addition, tourism and recreation in forests is a significant overseas earner as are the films that have featured New Zealand’s forests.

Section 2: Improve environmental and economic outcomes

(a) Protecting the contribution of trees and forests

Policy 2: Sustain the benefits trees and forests provide, through measures to reduce the risks they face.

Discussion: Risks to existing forests include the impacts of climate change, pests and diseases (both those already present in New Zealand and actual and potential incursions), fire, non-evidence-based land-use policies that discriminate against trees and forests, population pressure and technological change. Coordinated action is needed to reduce the risks and protect the benefits.

Strategic Actions: To implement this policy, the following strategic actions are proposed:

- 2.1 Control or eradicate existing pests and diseases that damage or destroy trees and forests.
- 2.2 Implement efficient and effective processes to prevent, detect and control:
 - new pests and diseases, which have the potential to damage or destroy trees and forests, from entering New Zealand;
 - wild fires affecting or likely to affect forests.
- 2.3 Ensuring adequate protection and management of forest ecosystems that have national, regional or local significance for biodiversity.
- 2.4 Undertake research into understanding the impact of climate change on trees and forests and developing plans to address issues that arise. Potential issues include:
 - Increased threats to trees and forests from existing pests and diseases, as well as incursions from overseas;
 - Increased threats to forests from fire (both in terms of the intensity of fires and in a lengthening of the period during the year in which fires are a threat);
 - Shifts (latitude or altitude) in the optimum growing and reproduction range of individual species (both indigenous and introduced);
 - Changes to the current temperature, precipitation and wind patterns that will affect the optimum growing and reproduction locations for individual species (both indigenous and introduced). For introduced species it could mean the use of species not already in common use. For commercial forests it could mean changes in the way harvesting and management is undertaken, including the possibility of retiring some areas from commercial forests.
- 2.5 Ensure that policies (new and existing) developed in matters that may affect forests (such as taxation and land use policies) are based on sound science, explicitly account for the

externalities arising from different land uses and drive change in ways that are equitable to all sectors. Effective policies are those that consider land use at a catchment and regional scale, not just at the individual property level. Investor confidence in forests needs to be maintained to reduce the risks of policy driven land use change away from forests.

- 2.6 Educate the public, politicians and officials on the important role that trees and forests play in New Zealand's economy, environment, society and culture.
- 2.7 Ensure that all forests are managed to standards that have regard to legislative requirements, impact on neighbours and neighbouring land and the health and safety of those working in or otherwise using the forest.

(b) Increasing the contribution of trees and forests

Policy 3: Increase the contribution trees and forests make to society through a combination of regeneration of indigenous forests, planting new stands of trees and establishing more urban trees and forests.

Discussion: New forests will be targeted at objectives such as mitigation of the effects of climate change, mitigation of erosion, enhancement of water quality and increasing biodiversity. They will use both appropriate species and management techniques to achieve desired objectives and will have regard for the risks facing forests and for projected environmental and technological change.

Strategic Actions: To implement this policy, the following strategic actions are proposed:

- 3.1 Identify land suited to new forests and establish new forests where this will make a significant contribution to the policy outcomes.
- 3.2 Recognise that the species and management regimes applied to new forests will vary depending on the best use of different classes of land. Thus:
 - Biodiversity considerations are likely to indicate new forests on erosion prone land where harvesting of mature trees will be difficult and expensive, should be of indigenous species. If faster growing introduced species are used as a nurse crop, management should be targeted at replacement with indigenous species as soon as possible;
 - Commercial considerations are likely to indicate forests with a wood production objective should be on good sites, close to processing plants and ports. Both introduced and indigenous species should be considered.
- 3.3 Ensure land use policies recognise the long-term nature of forests and that disruptive short-term land use policies threaten the retention of forests and the attractiveness of forest investment.

Section 3: Processing and using forest products

Policy 4: Encourage domestic processing, domestic use and exports of forest products by implementing stable, evidence-based policies and strategies.

Discussion: Forest products are a source of construction materials, paper and packaging products, energy, bioplastics, food, medical products, chemicals, cultural items and more. Forest products surplus to domestic requirements provide trading opportunities, earning significant overseas income. Forest products contribute to climate change mitigation through the embodied carbon in wood products and being renewable substitutes for fossil fuels. The existence of domestic

processing facilities, encouragement for the domestic use of forest products and viable export markets improves the options for those who invest in forests for commercial purposes.

Strategic Actions: To implement this policy, the following strategic actions are proposed:

- 4.1 Provide the policy and regulatory environment that encourages investment in domestic processing. This requires sustainable wood supply plus viable domestic and export markets for forest products and an efficient, evidence-based regulatory environment.
- 4.2 Develop markets for forest products (wood and non-wood) from a range of tree species, including indigenous species. This will reduce reliance on imported tropical and other timbers and provide an outlet for plantation grown indigenous species and from urban trees that require replacement as they age.
- 4.3 Encourage and promote the use of wood and wood products as a sustainable and environmentally friendly building product. This requires availability of high quality technical information on the properties of wood and wood products and education of architects, designers and builders on the properties of wood and wood products.
- 4.4 Encourage research into development, use and marketing of new and innovative products and processes for construction and other uses.
- 4.5 Encourage research, development and marketing of non-wood products from forests such as foods, medical products, cultural materials, bioenergy, bioplastics and chemicals.

Section 4: Governance and other considerations

Policy 5: A sound governance environment providing reliable and comprehensive services and infrastructure will be developed to ensure the success of the policies described above.

Discussion: Protecting and enhancing the benefits society obtains from trees and forests requires:

- Ready availability to Government of a source of experienced and competent advice on the management and use of trees and forests;
- Policy, regulations and strategy affecting trees and forests that:
 - Recognise the long-term nature of trees and forests requires a stable policy and regulatory environment;
 - Recognise and protect forests and the ecosystem services they provide;
 - Encourage investment in forests, whether for commercial or public good objectives;
 - Encourage forest processing and the use of forest products and associated activities;
- Ancillary services needed to ensure the success of the policies including research, education, training, advisory services and infrastructure.

Strategic Actions: To implement this policy, the following strategic actions are proposed:

- 5.1 Establish and maintain a national forest agency to provide expert advice to the government on all aspects of forests and forestry in New Zealand. The agency to be responsible for:
 - Developing, updating and administering forest policy, regulations and strategy;
 - Collecting, storing, analysing and making available to officials, investors and the public, the data needed to make sound, informed decisions on forests and forestry matters;

- Ensuring small scale forest growers are supported through efficient and cost-effective advice on matters such as environmental certification, forest establishment and management, timber sales, harvesting and marketing;
- Improving public understanding and awareness of the value of New Zealand's forests and the ecosystem services they provide.

5.2 Ensure policies, regulations and legislation:

- Create the conditions to recognise and protect forests and the ecosystem services they provide;
- Encourage investment in forests, forest processing, use of forest products and associated activities;
- Support the delivery of the public benefits of forests.

5.3 Ensure international trade in New Zealand forest products is facilitated through trade agreements and other arrangements, including measures (such as alignment of standards) to protect or promote New Zealand forest products in overseas markets.

5.4 Encourage investor confidence in forestry through a stable policy environment and policies where forestry is treated in an equitable way with other land uses while recognising the long-term nature of forestry.

5.5 Ensure equitable allocation of the cost of provision and maintenance of the infrastructure required for the efficient movement of forest products.

5.6 Ensure availability of funding to enable provision of high quality education and training activities to support the needs of all forest owners and managers and to encourage people to gain the knowledge and experience needed for forest management and associated activities, now and into the future.

5.7 Ensure the provision and funding of quality research facilities capable of long-term fundamental and applied research into growing, protecting and managing forests, evaluating new technologies, developing and testing new or improved forest products and forming the basis for evidence-based policies.

5.8 Develop methods for more efficiently quantifying and valuing ecosystem benefits arising from different land uses including forests.

5.9 Support the development of internationally recognised certification standards for forest management and use of forest products.