

# The Forests Dialogue - New Zealand: Tree plantations in the landscape





### Acknowledging Māori & Aotearoa





### Land of Ring of Fire & Long White Cloud





# **Globally-unique ecosystems**



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### The arrival of Māori





### The arrival of Europeans





AGFIRS

### Landscape transformation

### ANALYSIS OF DRIVERS AND BARRIERS TO LAND USE CHANGE

A Report prepared for the Ministry for Primary Industries



# Landscape transformation

- 38% forested (7% tree plantations)
- 50% land area farming
  dairying most profitable
  - grazing most extensive
  - changes 'permissive'
- 25% conservation
- 25% other land uses
  - plantations 2<sup>nd</sup> most profitable land use



### **Tree plantations in the landscape**



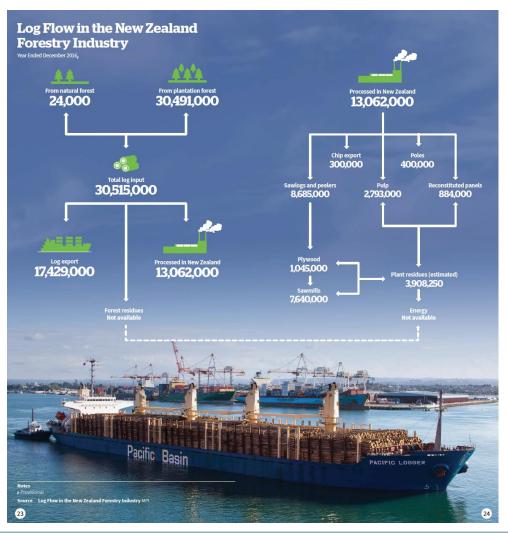


### **Tree plantations in the landscape**

- 1.7 M ha tree plantations
  90% radiata pine
- majority internationally-owned
   many TIMOs, others ...
- 30% under Māori 'control'
  mostly land, some tree, ownership



# Tree plantations in the economy



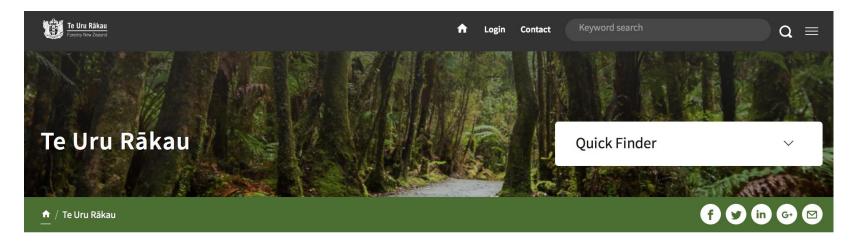
 7% GDP (primary production 30% GDP)

- 50% log harvest exported
- China is main market
- domestic processing "steady"





### **TPL NZ focal issues**



### Te Uru Rākau

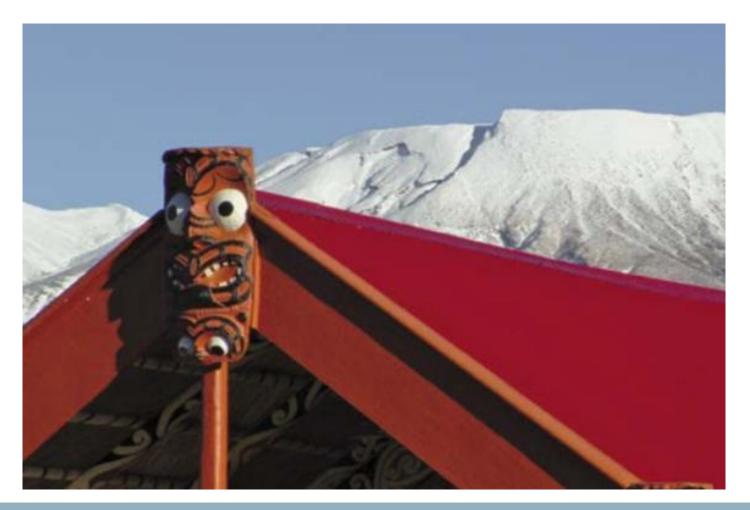


Growing trees. Growing the economy. Te Uru Rākau is focused on supporting the planting of exotic and indigenous forests, sustainable forestry management, programmes like the Emissions Trading Scheme, and forestry grants.





### Māori forestry





# Māori forestry

Issues characteristic of first people and their lands

- respect, responsibility, holistic perspective
- cultural & social goals, as well as economic
- forestry as a means of empowerment,
   & addressing historical disadvantage
- tree plantations part, but not all, of this ...



### Māori forestry

Priorities from recent hui:

- more effective cooperative structures
- greater & more effective use of Māori land
- greater Māori ownership/ control in forestry
- increased Māori capability in forestry
- an industry that meets Māori aspirations



### Planted forests & climate change



### Low-emissions economy



Ministry for Primary Industries Manatū Ahu Matua

#### AN OVERVIEW OF FORESTRY IN THE EMISSIONS TRADING SCHEME

#### NEW ZEALAND'S EMISSIONS TRADING SCHEME

The New Zealand Emissions Trading Scheme (ETS) is a way of meeting our international obligations around climate change. It puts a price on greenhouse gases to provide an incentive to reduce emissions and encourage landowners to establish and manage forests in a way that increases carbon storage.

The main unit of trade in the ETS is the New Zealand Unit (NZU). One NZU represents one tonne of carbon dioxide. The Government issues NZUs for increases in carbon stock in some forests, and these may be held or bought and sold within New Zealand. NZUs are held in the New Zealand Emission Unit Register (NZEUR). ETS participants must have a holding account in the NZEUR for unit transfers. Forest owners participate in the ETS in two ways:

- Voluntarily owners can apply to register their post-1989 forest land into the ETS to earn NZUs.
- Mandatorily owners become participants when nonexempt pre-1990 forest land is deforested.

Generally, where forest land is established after 31 December 1989 on previously non-forest land, it is post-1989 forest land. Where forest land was first established before 1 January 1990, it is pre-1990 forest land. (See *Forest land definitions and classification below*).

#### POST-1989 FOREST LAND PARTICIPATION

Post-1989 forest land owners, or holders of a registered forestry right or lease, may voluntarily apply to register as an ETS participant at any time. They are entitled to receive NZUs for increases in carbon stocks and must pay units for decreases.

Participants can only claim units for the period in which they are registered, and can register part or all of their post-1989 forest land. They can also apply to add or remove forest land at any time.

Post-1989 forest land participants' legal obligations include:

 Account for the change in carbon stocks in the forest at least once every five years. See How to complete and

submit an emissions return.

- Pay units if there is a decrease in carbon stock, for example, due to harvesting or fire.
- Notify the Government if any part of their registered forest land is transferred to another party.
- Repay units that have been issued for that forest land if it is withdrawn from the FTS<sup>1</sup>

#### PRE-1990 FOREST LAND PARTICIPATION

If pre-1990 forest land that has not received an exemption is deforested, the landowner (or a third party who has deforestation rights over the forest, where the landowner has no control over the decision) automatically becomes an ETS participant. They must pay units for deforestation emissions if more than 2 hectares of non-exempt forest is deforested in any five-year period. They do not receive NZUs for increases in their forests carbon stock. Pre-1990 forest land owners must notify MPI of

deforestation, and either: • submit an emissions return and pay units for emissions<sup>2</sup> (See Deforestation: Definitions and obligation and How to complete and submit an emissions return); or

 apply to offset their deforestation prior to deforesting, and establish a carbon and area equivalent forest elsewhere (See Offsetting deforestation of pre-1990 forest land).

#### FOREST LAND DEFINITIONS AND CLASSIFICATION

#### FOREST LAND

Forest land is at least one hectare of forest species. It has, or is likely to have:

 Tree crown cover of forest species of more than 30 percent in each hectare.

 An average width of tree crown cover of at least 30 metres<sup>3</sup>.

1 See NZ's climate change website for a list of units that may be used to pay for emissions or repay units. 2 See www.climatechange.govt.nz for a list of units that may be used to pay for emissions.

2 see www.climatechange.gov.nz tor a list of units that may be used to pay for emissions. 3 Forest land may also include areas with a with of less than 30 meters. This land must be adjoining forest land that meets the criteria given in the definition (see Glossary).

Growing and Protecting New Zealand

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#### Productivity Commission 2018

#### MPI 2015



### **Planted forests & climate change**

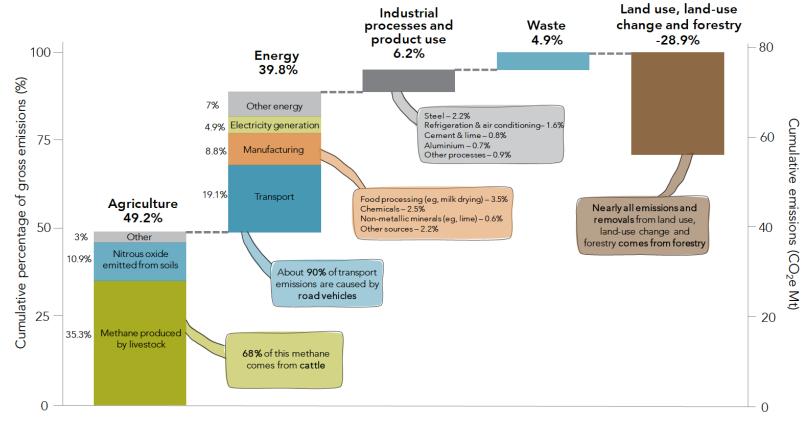
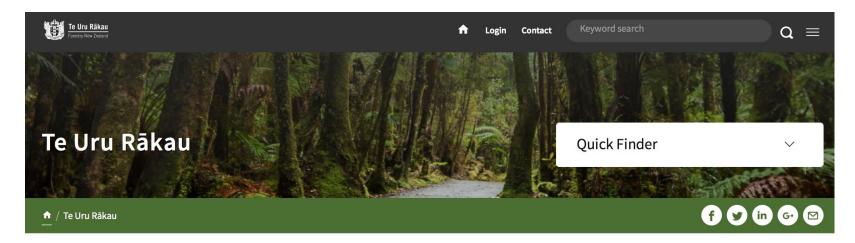


Figure 2-6 New Zealand's GHG emissions and removals by source, 2016

Source: MfE (2018e).



### **One Billion Trees**



### Te Uru Rākau



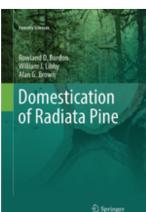
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## **Sustainable intensification**

#### **Forestry Sciences**



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### Domestication of Radiata Pine

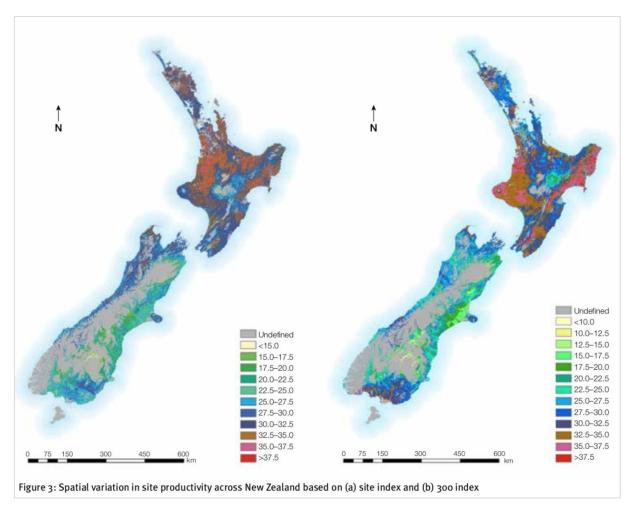
Authors: Burdon, Rowland, Libby, William, Brown, Alan







### **Sustainable intensification**



Aim:

- grow economic value
- 2x biological productivity
- maintain wood quality

Based on precision forestry

 integrated biological, operational, management, & utilisation elements





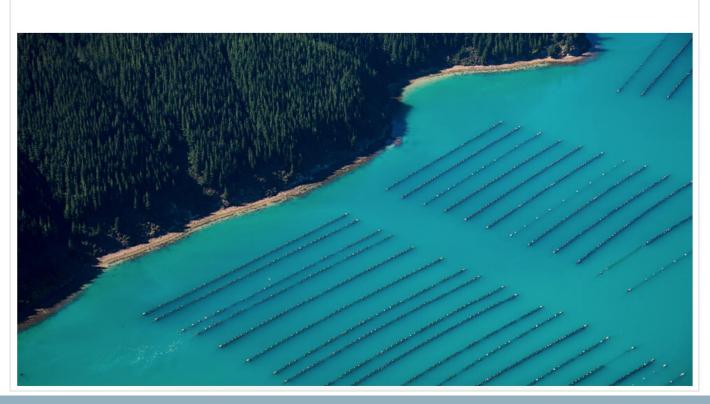


### New Zealand Planted Forests Portal





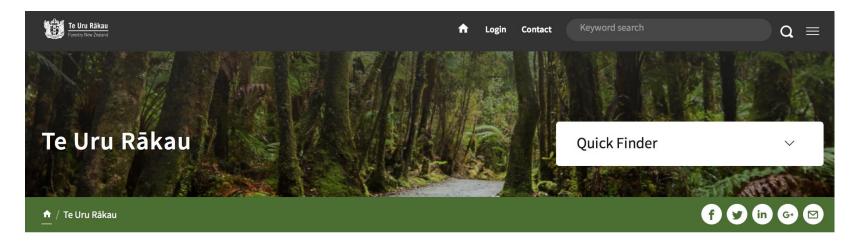
# Sectors of opportunity











### Te Uru Rākau



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# In conclusion: TPL NZ focal questions

- What can we learn from Māori approach; what can we offer ...?
- What can 1BT offer & achieve (beyond simply planting trees)?
- Can sustainable intensification deliver (sustainably)?
- What can planted forests do for Paris (& the world below 1.5°C)?