Transitioning New Zealand to a circular bioeconomy

scion
FORESTS • PRODUCTS • INNOVATION

Forests and landscapes

High-value timber manufacturing and products

Biobased manufacturing and products

RIGHT TREE, RIGHT PLACE, RIGHT PURPOSE

Impact Area 1: Development of healthy, resilient forests that are planted primarily for their standing-forest benefits

Impact Area 2: Development of products, manufacturing, high-value trees and healthy, resilient forests that capture an increasing share of the global high-end market for timber

Impact Area 3: Development of products, processes, manufacturing, trees, other biomaterials and healthy, resilient forest to replace petrochemicals and non-sustainable materials.

Impact Area 1: Development of healthy, resilient forests that are planted primarily for their standing-forest benefits.

By 2030, new forest systems, designed and managed primarily for ecosystem services will have delivered $2 billion in value over 2018 figures through:

- 100% increase in afforestation of highly erodible land in the red zone
- 8 million tonnes increase in sequestered in above and below ground carbon storage in new forests
- 80% increase in forested area managed to enhance soil and water resources, biodiversity, landscape resilience; and a
- 100% increase in the use of forests for human health and wellbeing
- 100% increase in the value of Maori standing forests with maximum carbon net returns defined by land owner values
- Converting 30% of underutilised Maori land, appropriate for forestry, into standing forest plantations

Impact Area 2: Development of products, manufacturing, high-value trees and healthy, resilient forests that capture an increasing share of the global high-end market for timber

By 2030, current and new forests produce products for urban applications adding an extra $10 billion to New Zealand's GDP through:

- $7 billion in new houses and engineered timber applications;
- 50% increase in new species (non radiata pine) commercial plantings, harvest and high-value applications,
- 50% increased exports of processed timber and substitution for imported timber and products
- 10 million tonne carbon locked up in urban environments through adoption of the principles of circularity
- An increase in MAI (productivity) from radiata pine of an average of 35 m^2 per year with improved wood quality, uniformity and resilience to pests and pathogens
- 30% of underutilised Maori land has been cultivated for structural timbers (including indigenous) leading to a 60% increase in high value jobs for Maori and 300% increase in Maori investment in timber manufacturing and biobased co-innovation

Impact Area 3: Development of products, processes, manufacturing, trees, other biomaterials and healthy, resilient forests to replace petrochemicals and non-sustainable materials.

By 2030, an extra $20 billion is added to New Zealand's GDP, from an emerging biorefinery sector, new fibre based materials, fuel substitution, new cropping forests and manufacturing processes and regional employment resulting in:

- $2 billion increase in fuel and plastics substitutions (imports) and
- $6 billion in exports of fibre and plastics
- 10 million tonne contribution in reduction of CO2-e
- A Māori Bioeconomy performing at the rate of national GDP with $500 million in new investment into new manufacturing value chains