





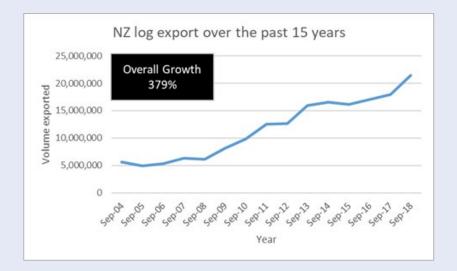
The Institute of Road Transport Engineers NZ (IRTENZ) 16th International Conference Technology & Infrastructure - rapid change, constrained framework"

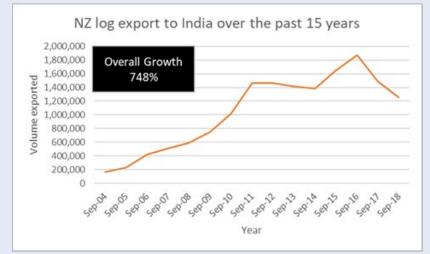
August 2019

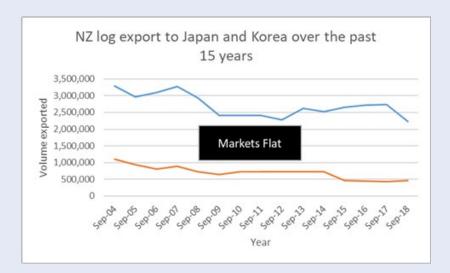
At the heart of New Zealand's freight & transport system

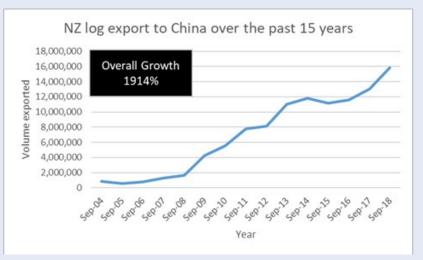


The Macro View











China China China

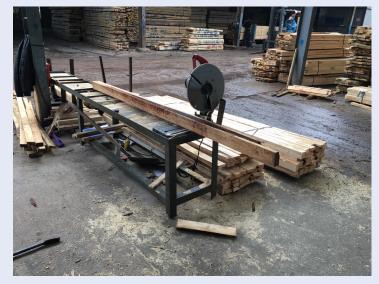
- Population 1.5 billion and growing
- Movement to Urbanisation
- Increase in Middle Class
- Government Investment in Infrastructure on a massive scale





China photos - Sawmilling



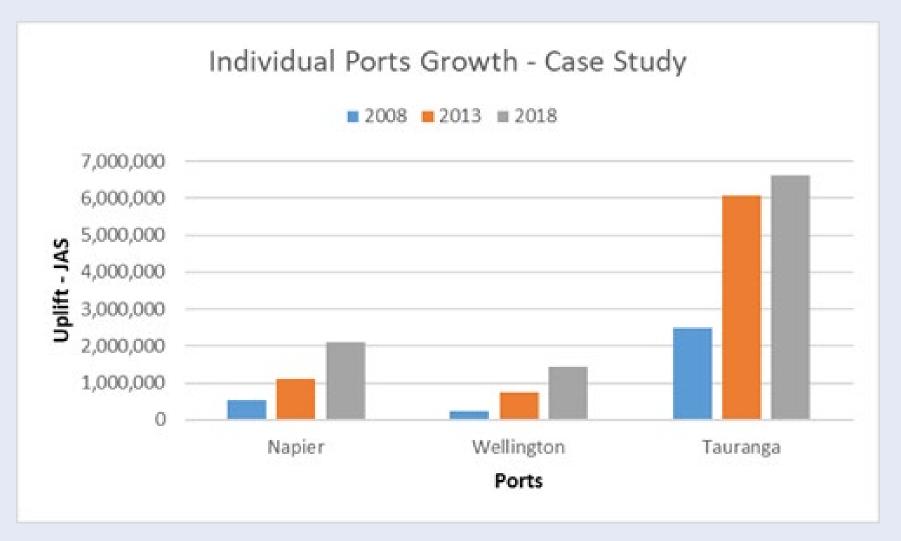








New Zealand Infrastructure Stretching Capacity





- FY18 carried 3.6m tonnes of logs railed to port
 - □ equates to 120,000 truckloads
- 21% of NZ's log exports
- log volumes grown 40% in last 7 years
 20% of network volume
- 650 log wagons





Billion Dollar Rail Investment next 2 years

\$331m

towards addressing legacy issues to improve reliability and resilience (e.g. maintaining existing tracks, signals, bridges, tunnels, new freight handling equipment and a new freight reservation and tracking system.)

\$375m

towards replacing 900 aging container wagons and start replacing the fleet of 48 South Island locomotives and some shunt engines; and improving the layout and efficiency of the major maintenance depots at Hutt and Waltham.

\$35m

for progressing procurement of two new, rail enabled ferries that will replace Aratere, Kaitaki and Kaiarahi.

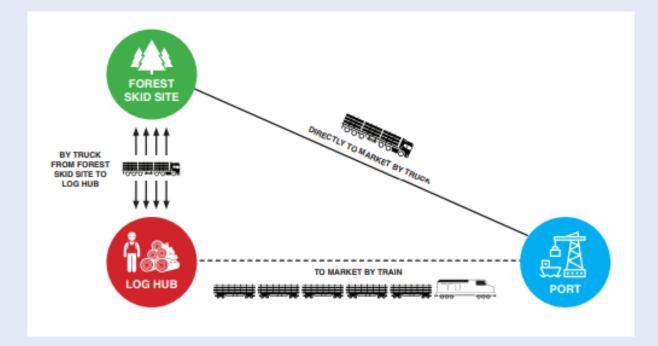
\$300m

Potential to access up to \$300m from the PGF for regional rail projects.



Improving Resilience of NZ's Transport Network

- Consolidation at log hubs for rail to port
- Truck can carry more logs/day to hub than to direct to port





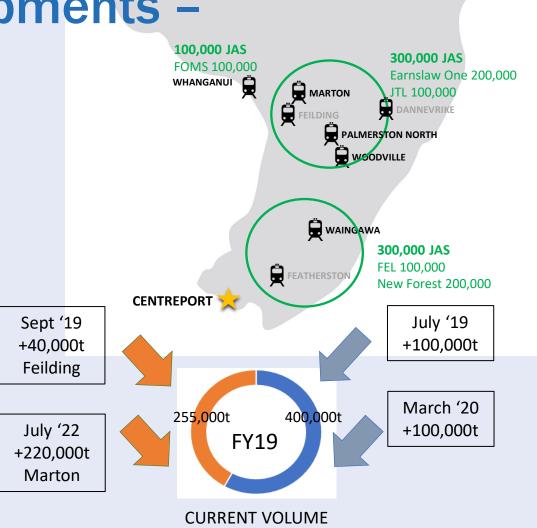
Hub developments

- Provide access to the rail network for forestry operators
- Aggregation point for road, rail and ports
- •Supply chain buffer between log production and shipping
- Significant investment to set up requiring scale





Hubs Developments – CentrePort





Repurposing wagons

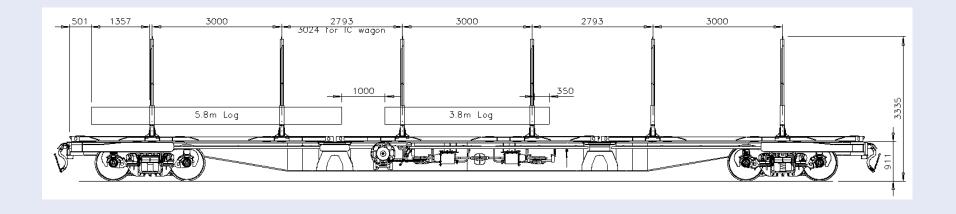
- Investment in new container wagons releases wagons for conversion to carry logs, extending their economic life
- Low cost conversion with proven industry equipment supplier
- Aged fleet 96% of fleet over 35 years old





A look into the future

- 60' log wagons with greater payload
 - □ leverage network capability
 - □ leverage existing 60' container wagons with cassettes
 - □ cassettes universal fit for standard 52' containers wagons
- BOP focus





60' log wagon





Innovation

- Robots Ticketing
- Scanners Scanning
- Remoted Controllers Diggers
- MHC





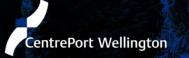
More of this needed











Questions/comments?