

# Carbon Farming and Small Woodlots





# Today..



- ETS Participation
  - P89 registered forests
- ETS Fundamentals.
  - 1<sup>st</sup> rotation carbon
  - Minimum (Safe) carbon levels
  - 2<sup>nd</sup> rotation carbon
  - Carbon profiles
- ETS Investment Analysis
  - Permanent forests
- CCC recommendations Re: Woodlots

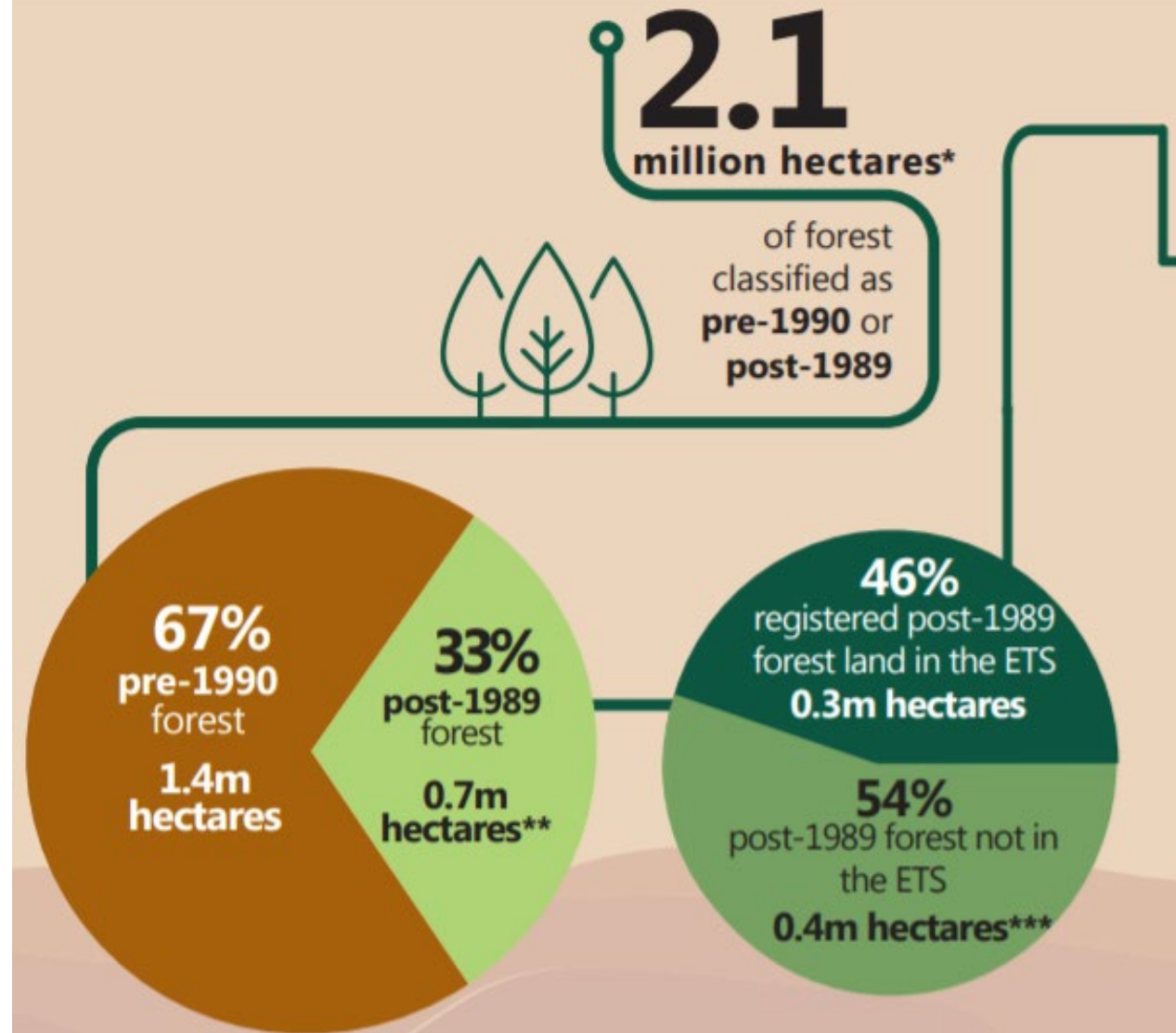
# ETS Participation



# ETS Participation

- 2.1m ha of forest either P90 or P89
- P90 classified - 1.4m ha
- P89 classified - 700k ha
- P89 registered - 300k ha
- P89 not reg. - 400k ha

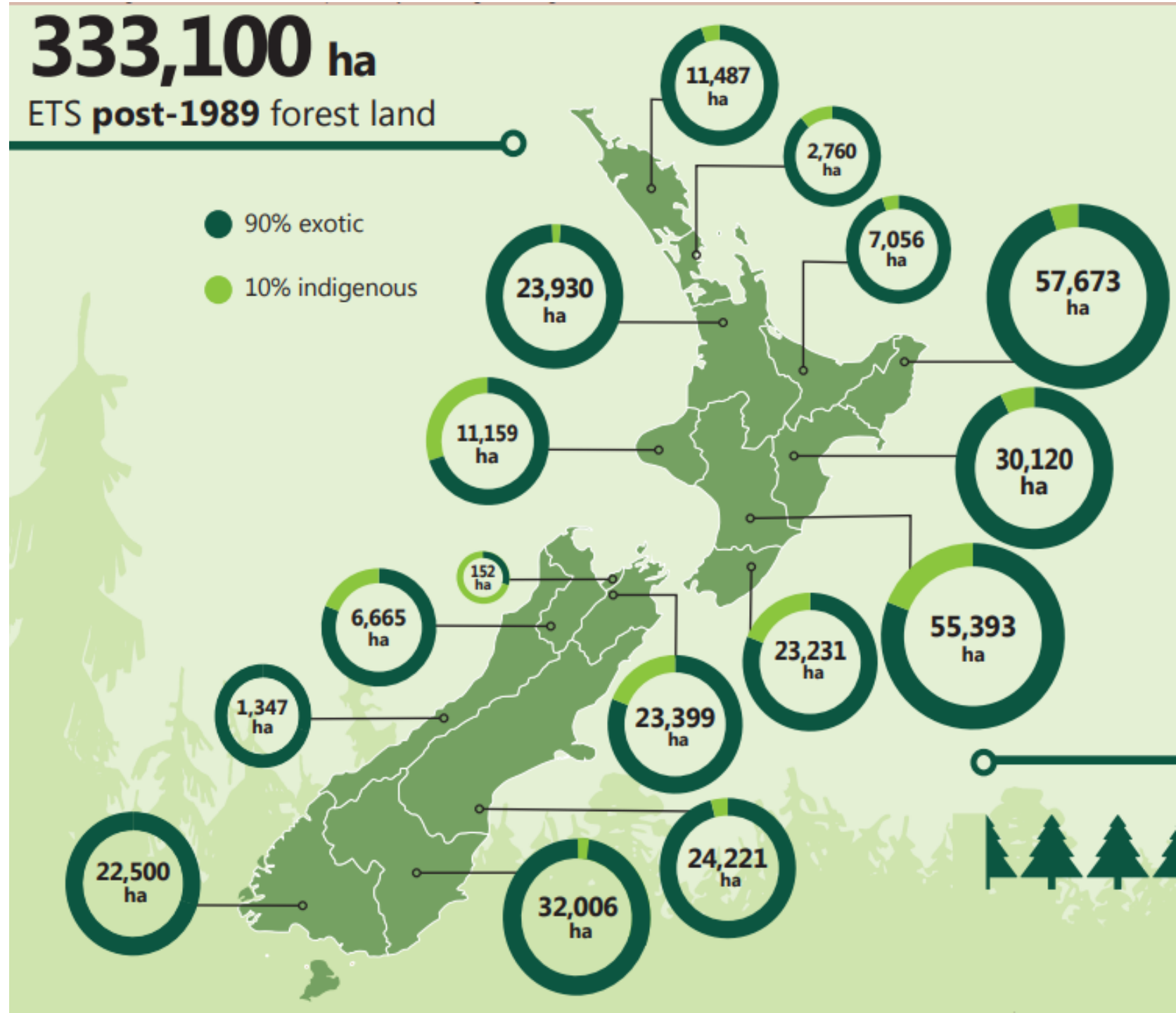
## Emissions Trading Scheme as at 31 December 2020





# P89 Participation

- 50% of P89 registered forest in four regions - E.Coast, HB/Wairarapa, Wellington, Horizons

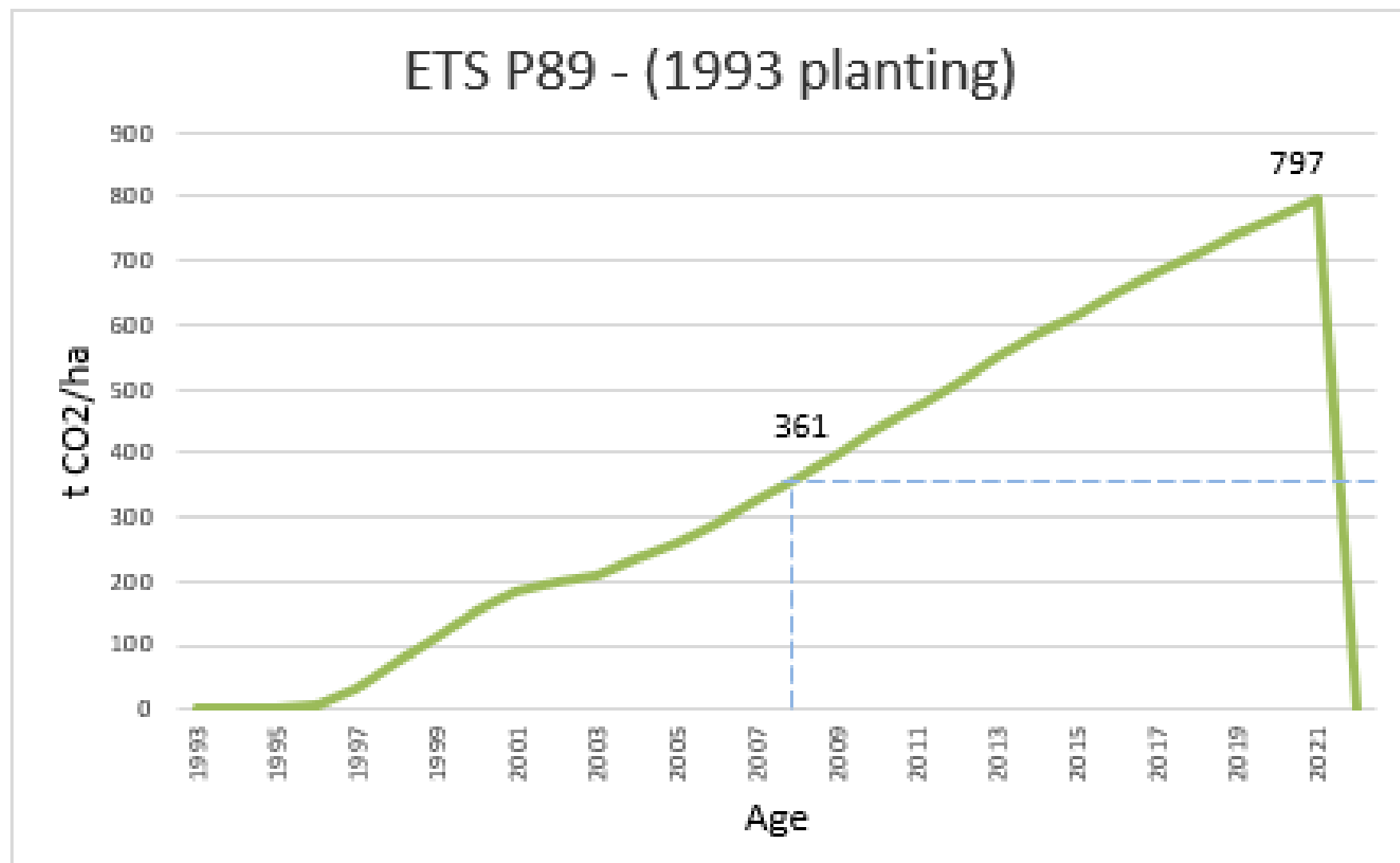


# ETS Fundamentals

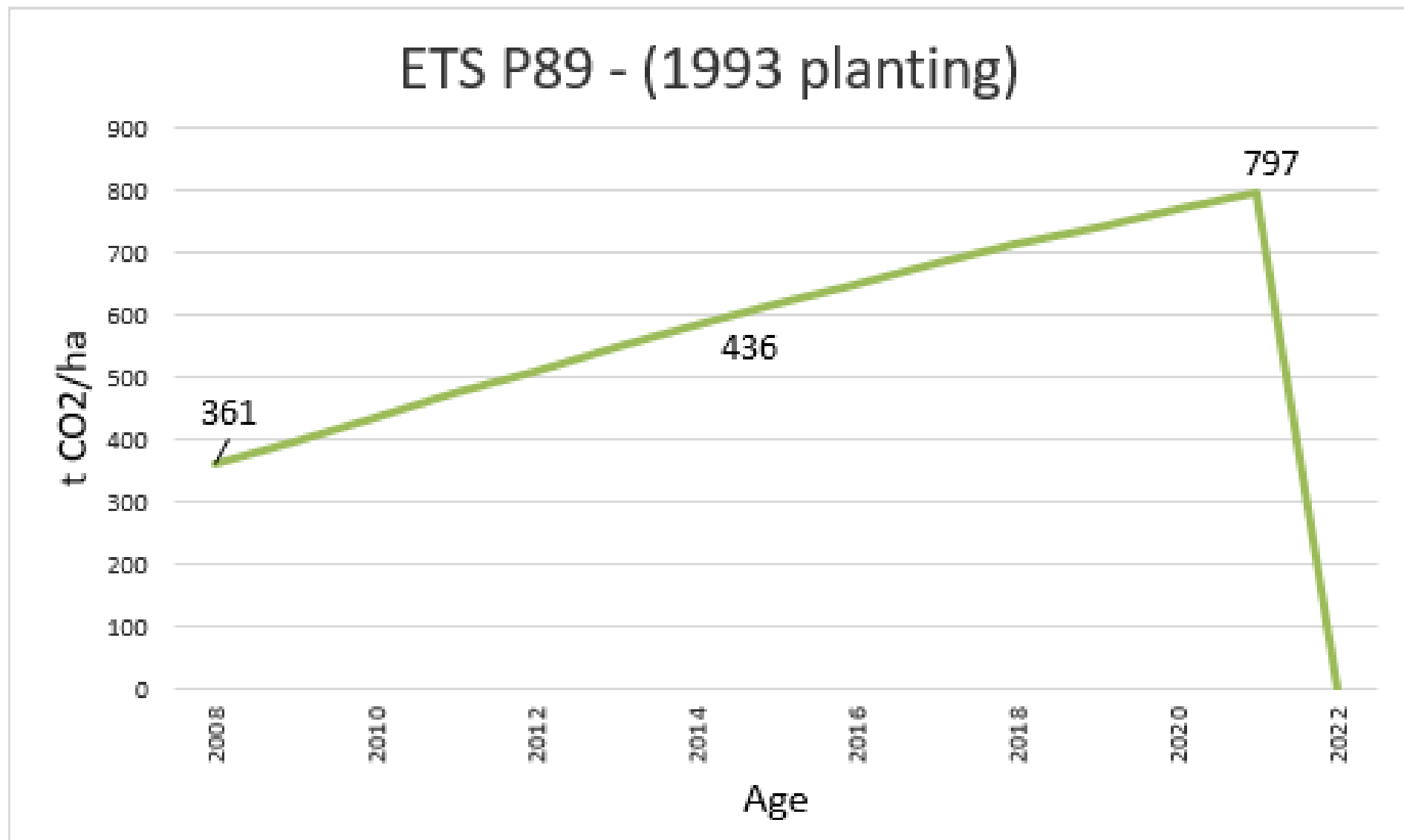




# ETS P89 – 1993 planting

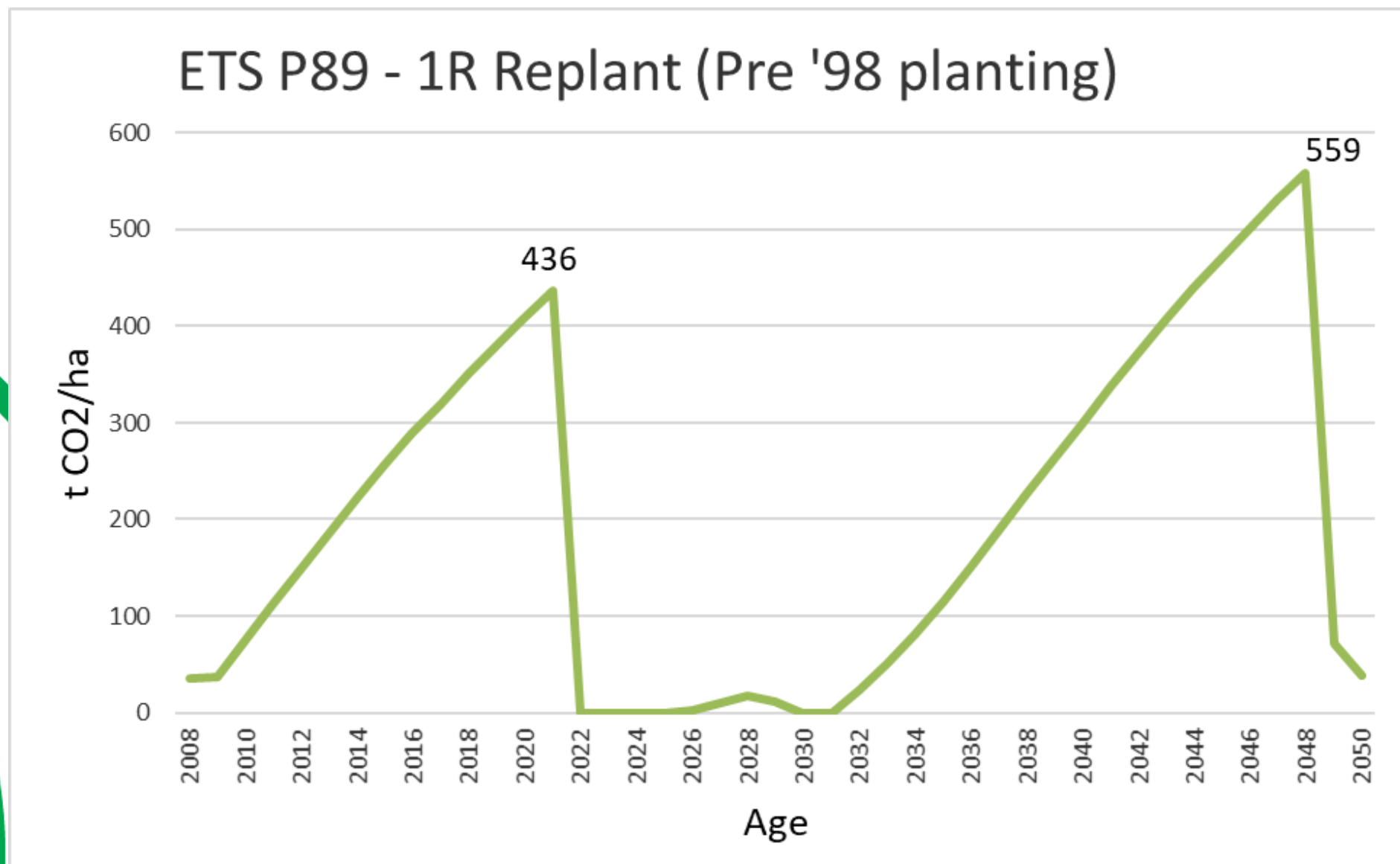


# ETS P89 – no replant





# ETS P89 – Replant (1993 age class)

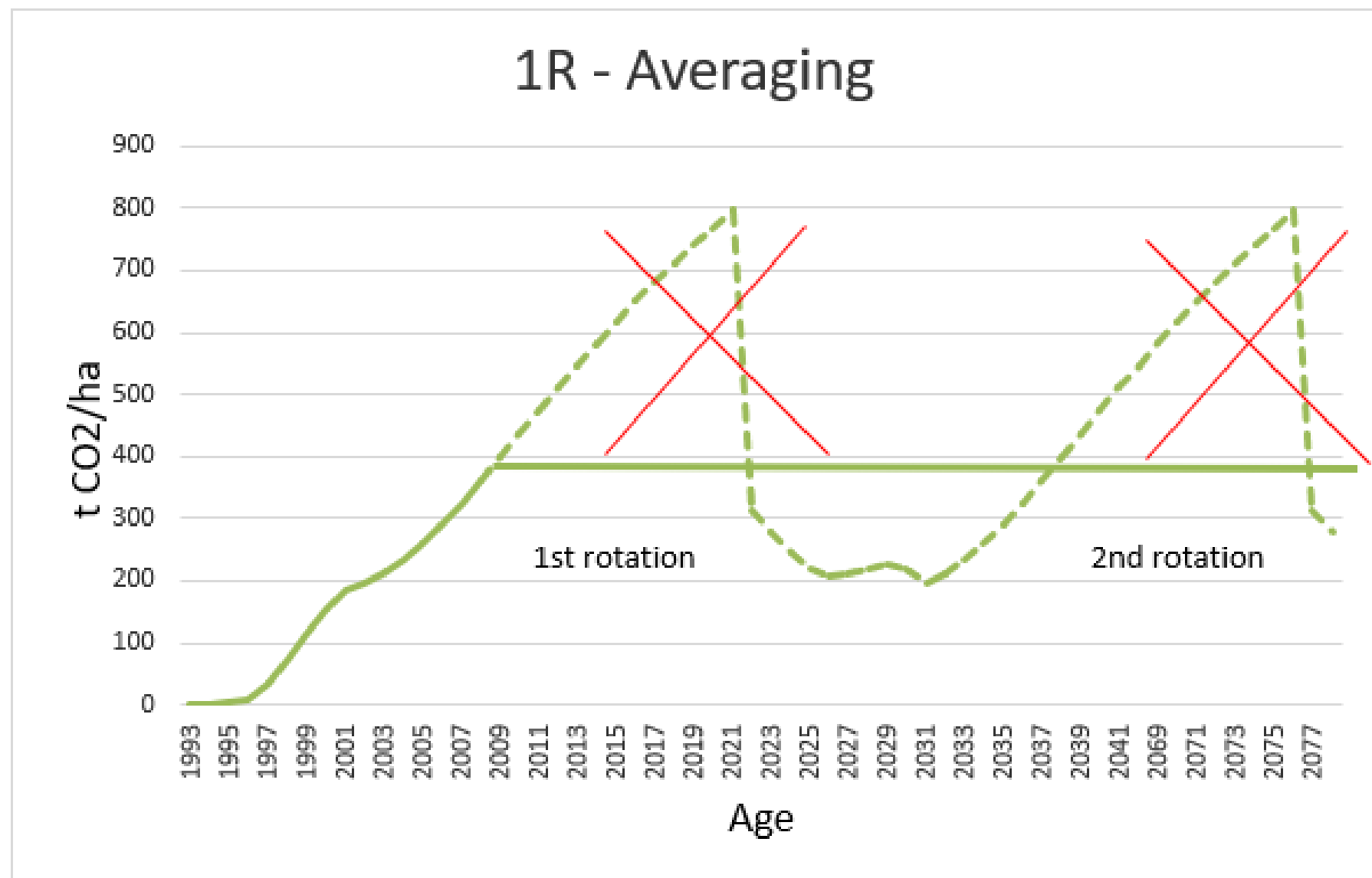


# P89 2<sup>nd</sup> Rotation Carbon

- 1<sup>st</sup> rotation P89 owners not registered have until Dec 2022 to register under CSC accounting
- After this, if you were to register it would be under Averaging.
- No opportunities for 1<sup>st</sup> rotation forests under Averaging unless your extending the rotation Age

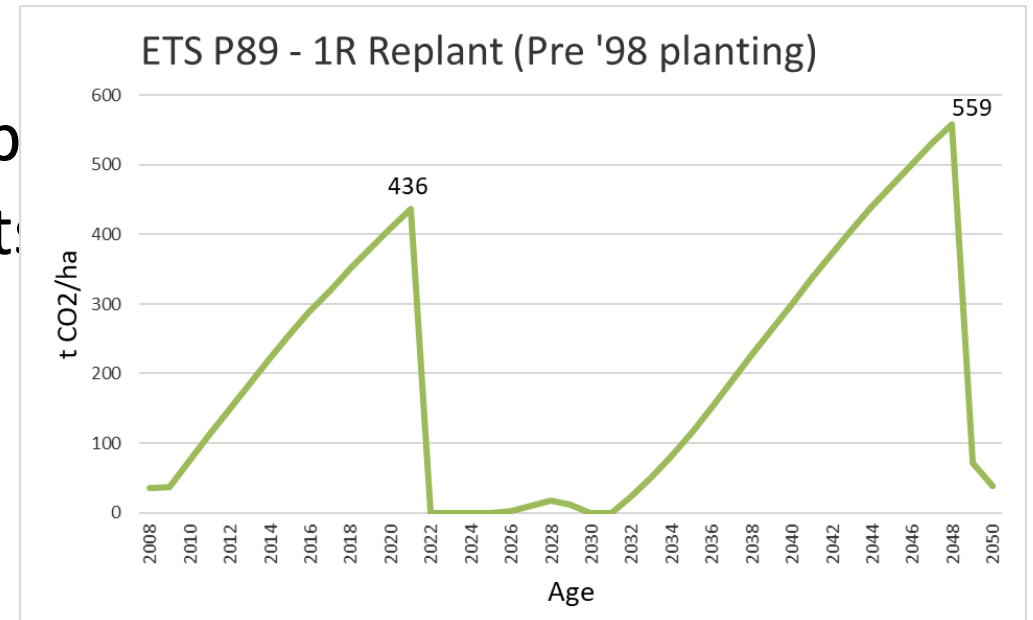


# ETS P89 1R –after 2023



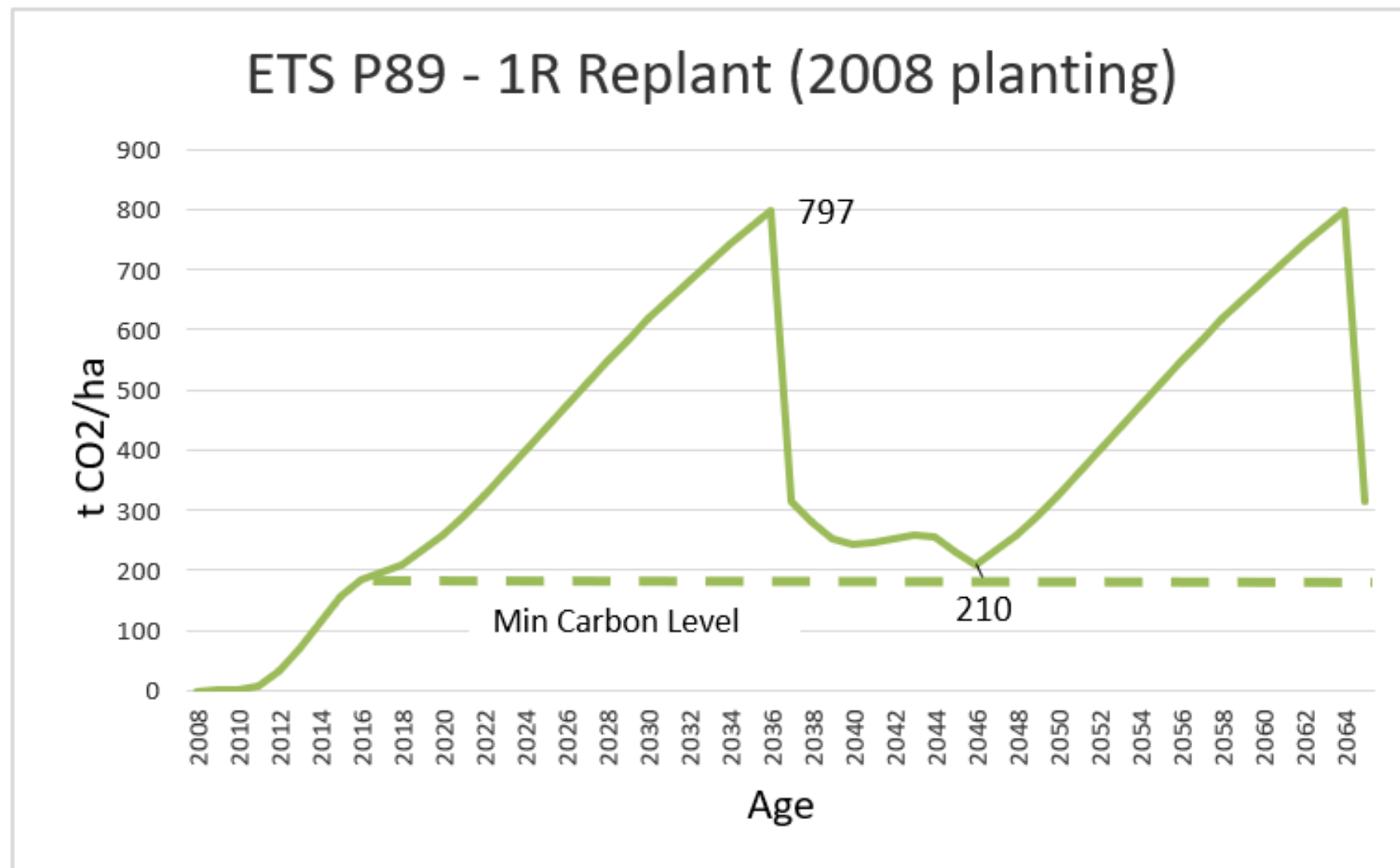
# P89 2<sup>nd</sup> Rotation Carbon – Why bother!

- You still have to pay it back at the end of the rotation.
- You never know what opportunities may come about if you have carbon in your account.
  - 20yrs time value
  - Anything can happen
  - Loan arrangements
  - More saleable

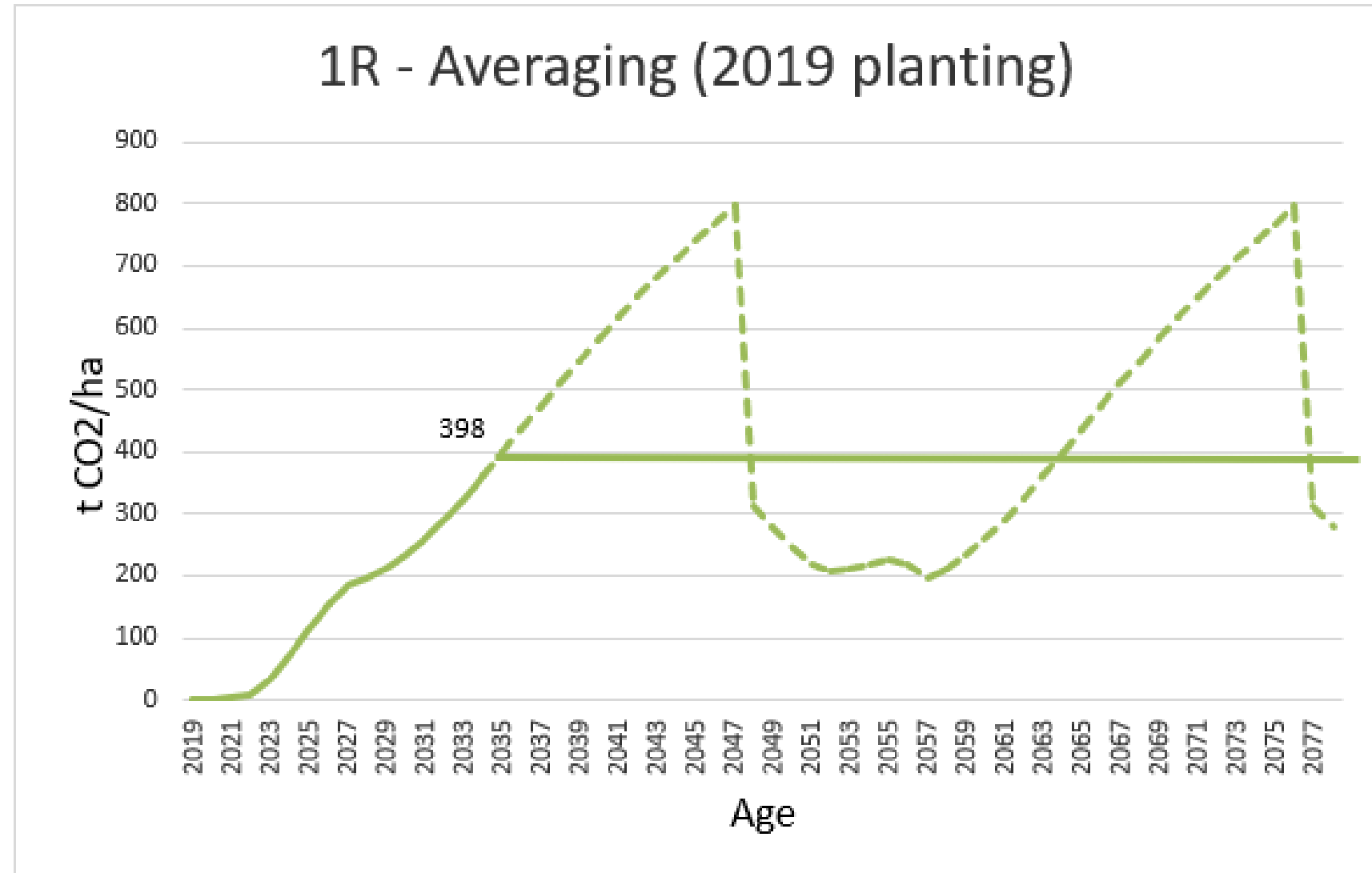




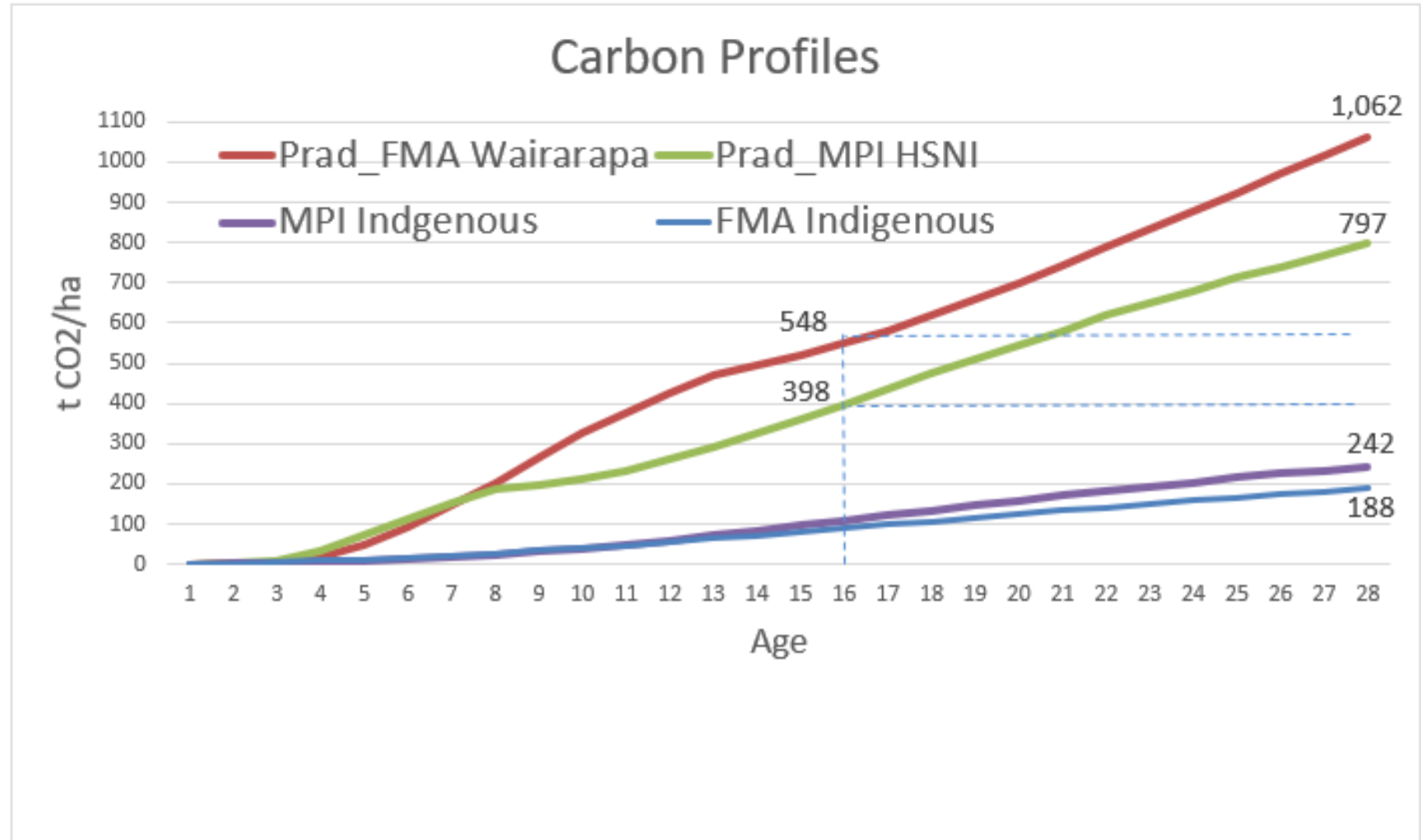
# ETS P89 – Replant (2008 age class)



# ETS P89 1R - Averaging



# P89 Carbon Profiles





# Carbon Woodlot Investment Analysis



# Carbon Woodlot Investment Analysis



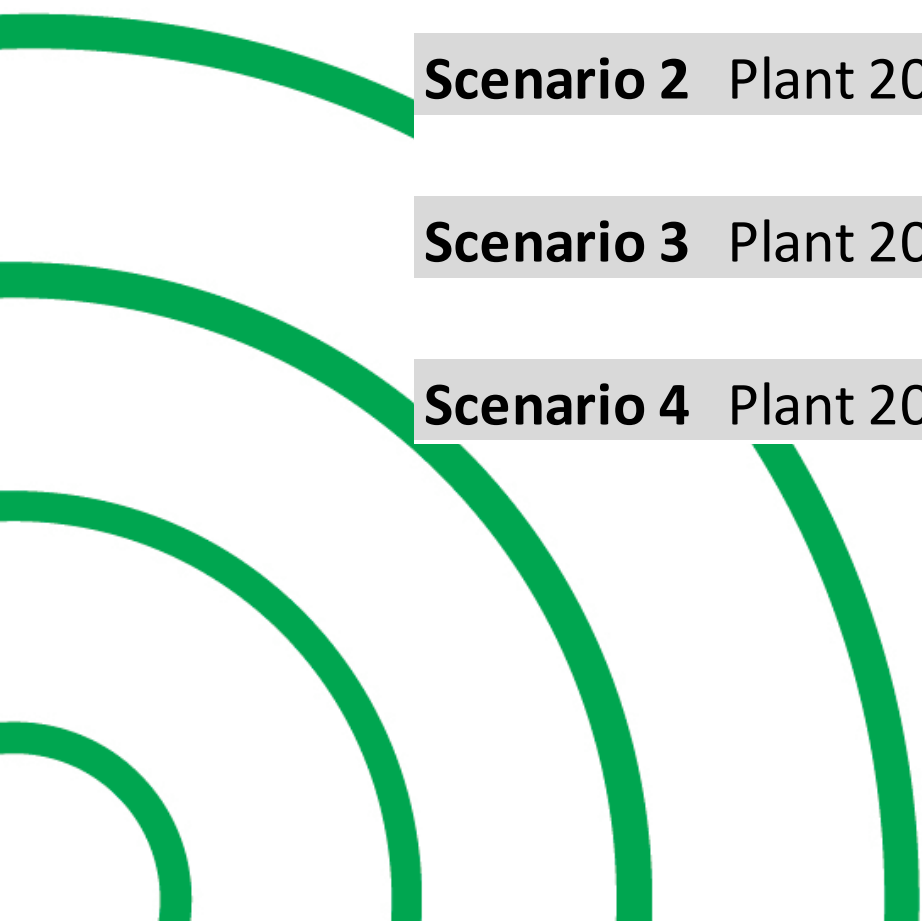
- **Scenario 1** – Plant 20ha Manuka
  - Manuka = Carbon (Permanence) & Honey
- **Scenario 2** – Plant 20ha Manuka, 10ha P.Rad
  - Manuka = Carbon & Honey
  - P.Rad = Carbon (Averaging) & timber
- **Scenario 3** – Plant 20ha Manuka, 20ha P.rad
  - Manuka = Carbon & Honey
  - P.Rad = Carbon (Averaging) & timber
- **Scenario 4** – Plant 20ha Manuka, 20ha P.Rad
  - Manuka = Carbon & Honey
  - P.Rad = Carbon (Permanence)

# Assumptions

Assumptions	Manuka	P.Radiata
Notional Land Rental	\$ 100 ha	\$ 100 ha
Discount Rate	6%	6%
SPH	1500 sph	1000 sph
Establishment Costs	\$ 4,320 ha	\$ 1,620 ha
Tending Costs	\$ - ha	\$ 900 ha
Framing Rotation	0	28
Log Yield	0 m <sup>3</sup>	754 m <sup>3</sup>
Harvest costs	0 m <sup>3</sup>	\$ 84.32 m <sup>3</sup>
Overheads	\$ 90 ha	\$ 90 ha
Log Prices	0	12Q
Carbon Yield	MPI H/SNI Ind	MPI H/SNI P.rad
Carbon Price	\$ 48 NZU	\$ 48 NZU
Carbon Price Increase	2%	2%
Manuka Honey	\$420 ha	0
\$70/kg x 20kg/ha - Yr 4 x 30%		



# Results



		IRR		NPV	Payback
<b>Scenario 1</b>	Plant 20ha Manuka	7.91%	\$	139,501	12-13yrs
<b>Scenario 2</b>	Plant 20ha Manuka & 10ha P.Rad	11.51%	\$	266,152	10yrs
<b>Scenario 3</b>	Plant 20ha Manuka & 20ha P.Rad	14.31%	\$	409,495	3-4yrs
<b>Scenario 4</b>	Plant 20ha Manuka & 20ha P.Rad	16.15%	\$	482,876	3-4yrs

# Permanence



- Woodlots owners want to understand the value of their woodlot ..if they don't harvest it.
- For some, they have been claiming carbon since 2008, stockpiled in their holding accounts, and waiting to surrender the carbon upon harvest.
- Many are realising there is significant value in their carbon stocks if cashed up now – no log market risk, no environmental risk, no H&S risk.
- Temporary adverse event rule.

# Climate Change Commission & Woodlots

- Recommendation 25
  - *'Govt to clarify the role of permanent exotic forests in our transition and develop and amend policies to deliver against this.'*
  - *'Encourage CO2 removals by new & additional small blocks of trees & vegetation.'*
  - *'Govt to have developed proposals for incentives for native forest plantings' by Dec 2022.*
  - Exotic trees inclusion into the ETS is short lived; beyond maybe 15-20yrs I can see a Scheme that only allows new indigenous forest establishment into the ETS.

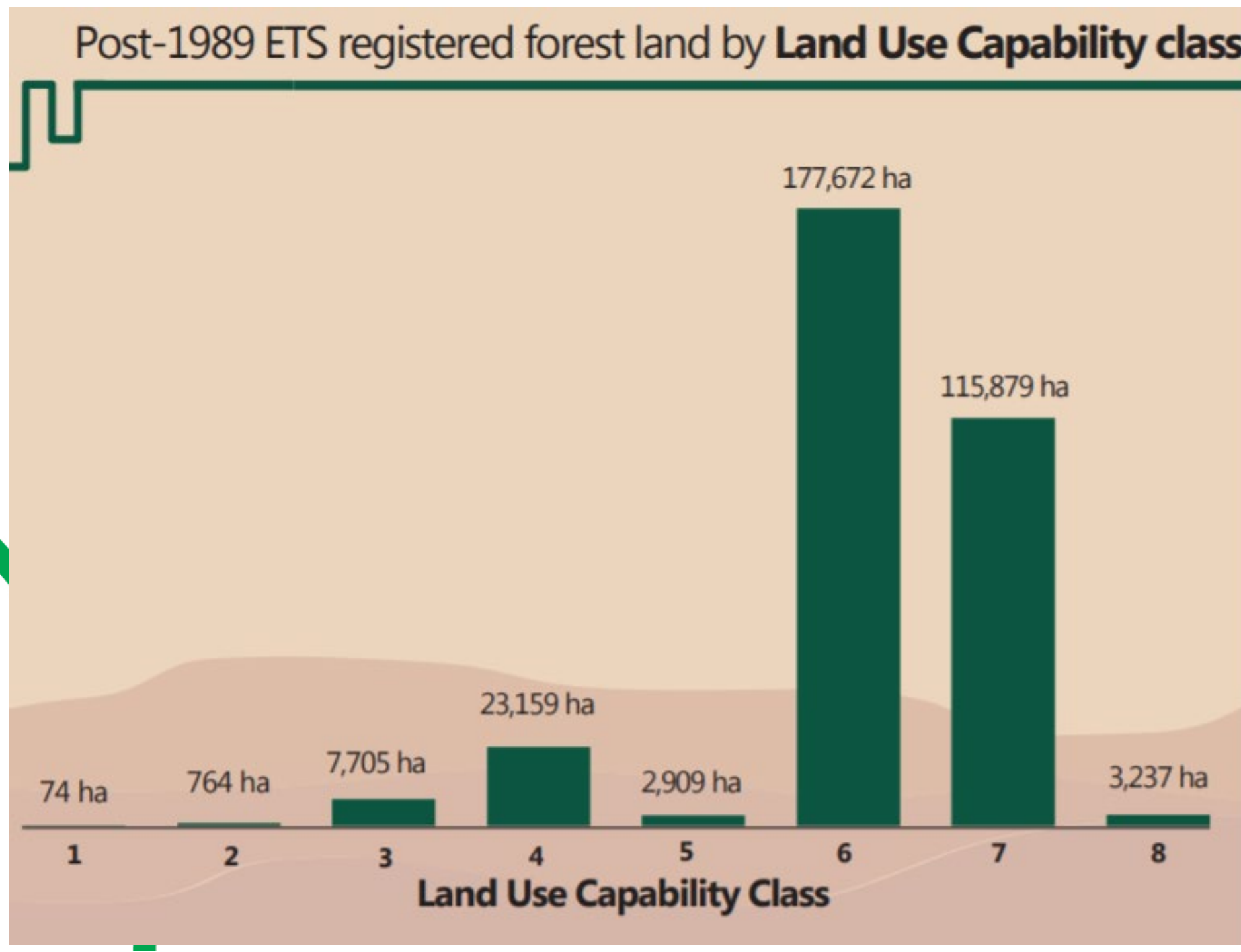


Questions?





P89 Land Use





- Afforestation feasibility assessments and economic modelling
- Forest valuations and due diligence
- Harvest planning and engineering
- Environmental assessments and planning
- Forest and harvest management audits and reviews
- Costs benchmarking
- Mediation and dispute resolution
- Training courses; manday rates, forest roading
- Time studies and productivity studies
- Carbon forestry consulting
- ETS administration
- NZU sales and purchase
- Wood supply resource analysis (log processors, ports)
- Log and wood processing feasibility studies
- Log and wood processing facilities productivity improvements
- Log and wood processing facilities management audits
- Quarterly log price report and stumpage index
- Informe harvesting App