

Inclusion of forest ecosystem services in policy & practice

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Outline

1. Background and New Zealand context
2. Understanding planted forest ecosystem services
3. Examples of implementation of forest ecosystem services in NZ
4. Selecting the most appropriate policy tool
5. Payments for forest ecosystem services: potential, concerns and on-going challenges.

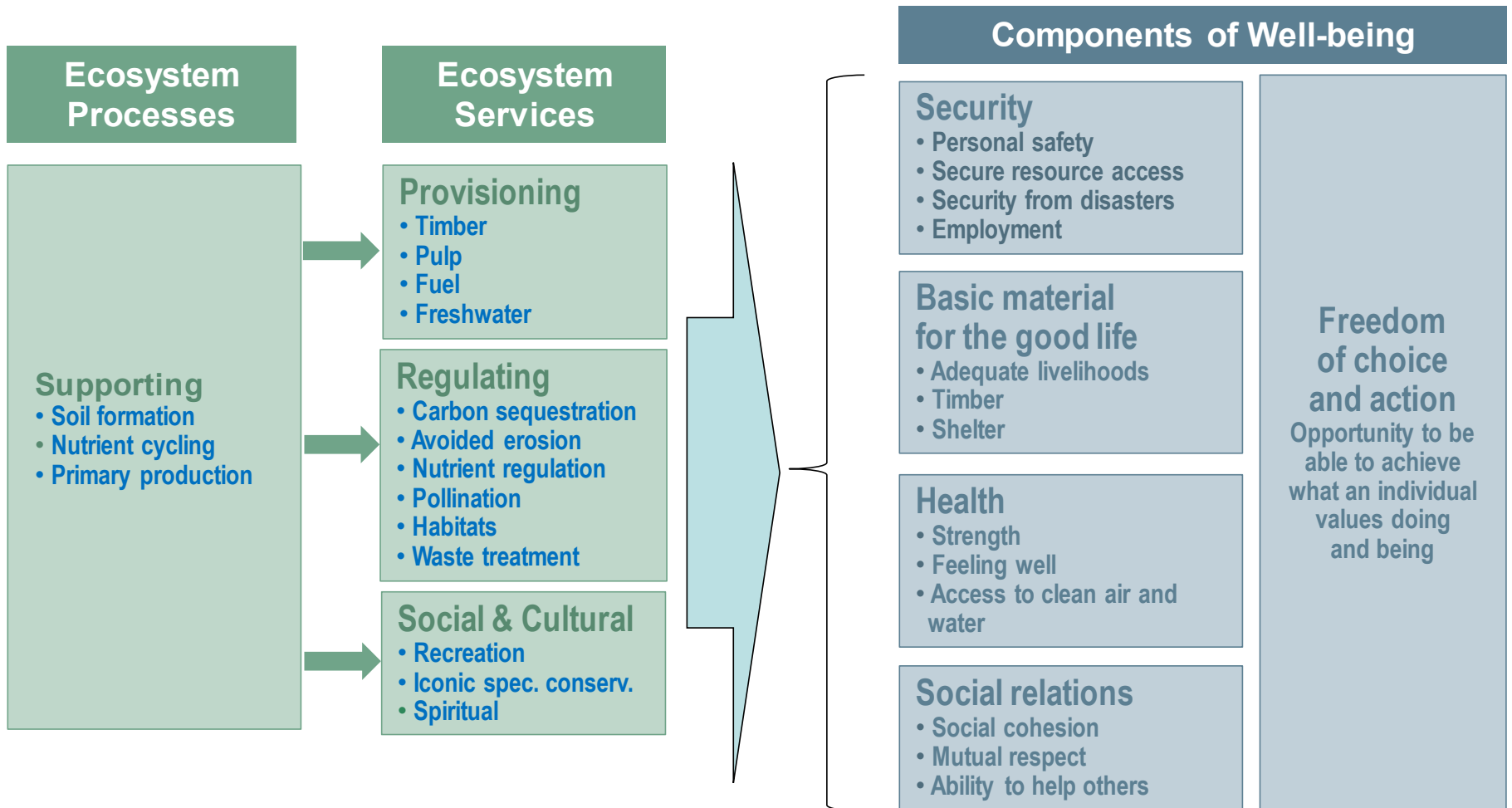
The Road to Success

FOR BC'S RESOURCE SECTORS



Source: Tim Ryan, BC Forest Practices Board

1a. Background: Ecosystem services of planted forests

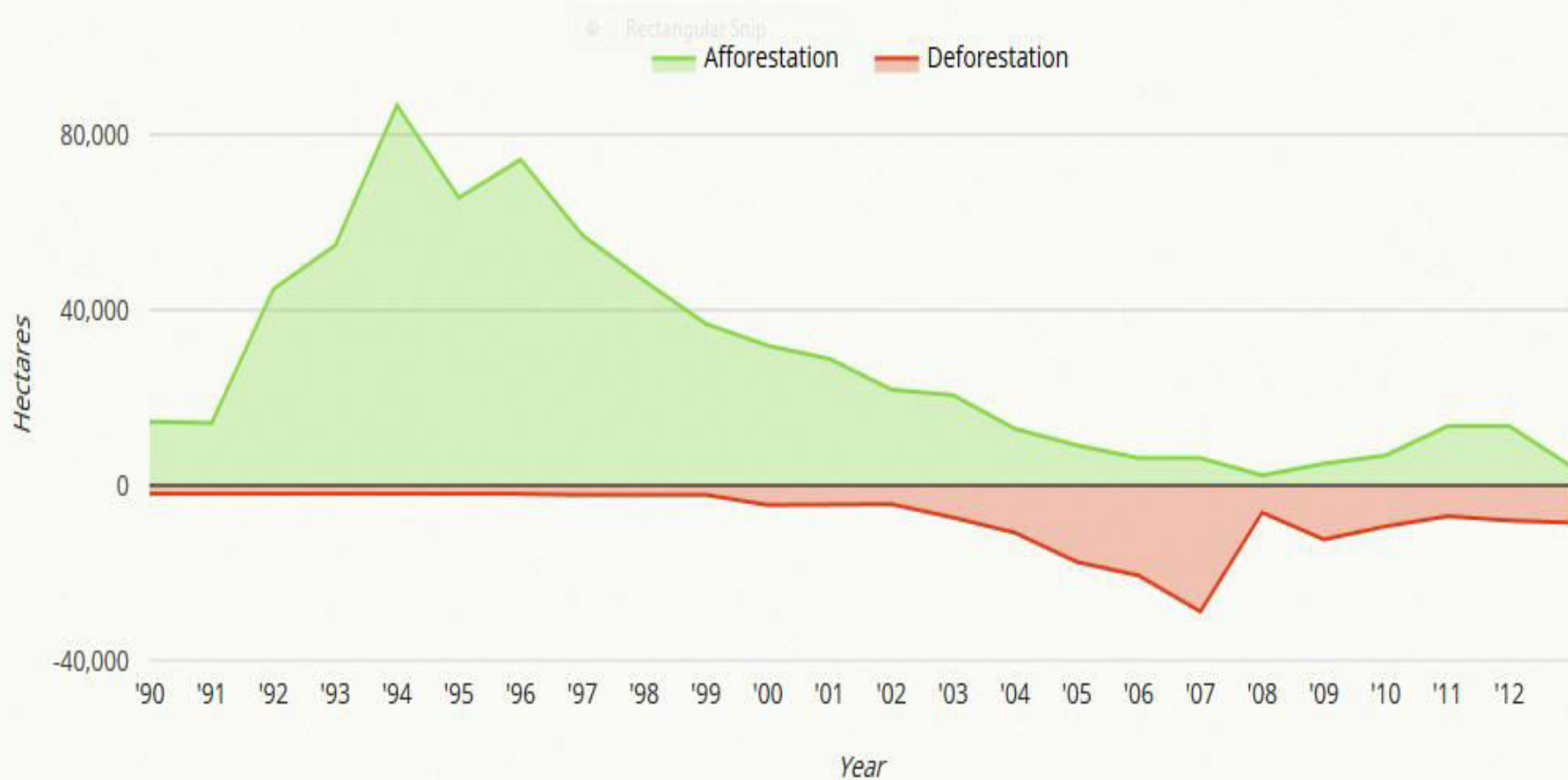


1b. NZ context

- Declining forested land in NZ
- Reduced afforestation— from 55,000 hectares planted on average each year in the 1990s to just 3,000 hectares in 2014
- Competition with other landuses
- Growing environmental concerns: water quality, erosion, biodiversity and carbon sequestration

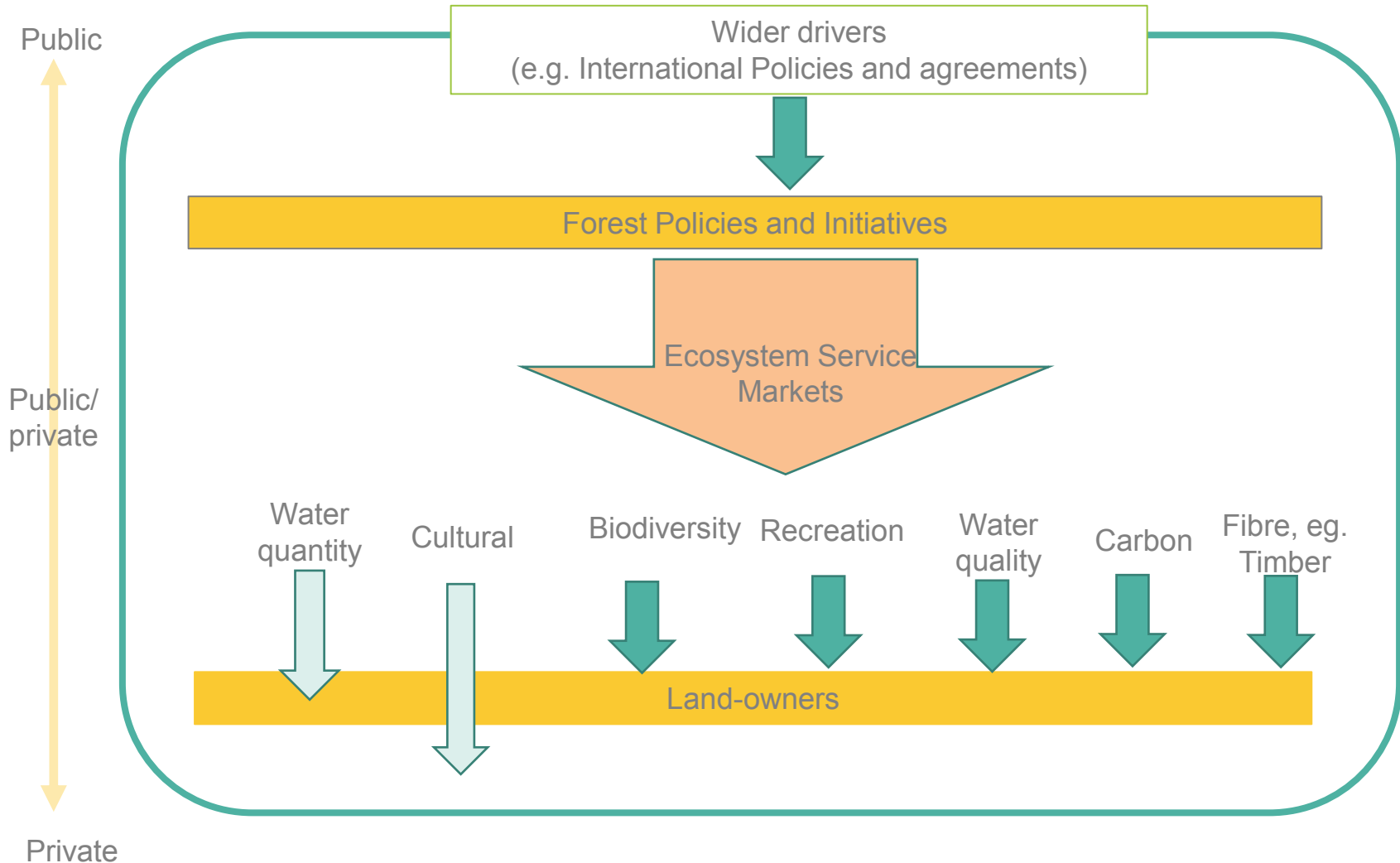


Afforestation and deforestation in New Zealand (hectares)

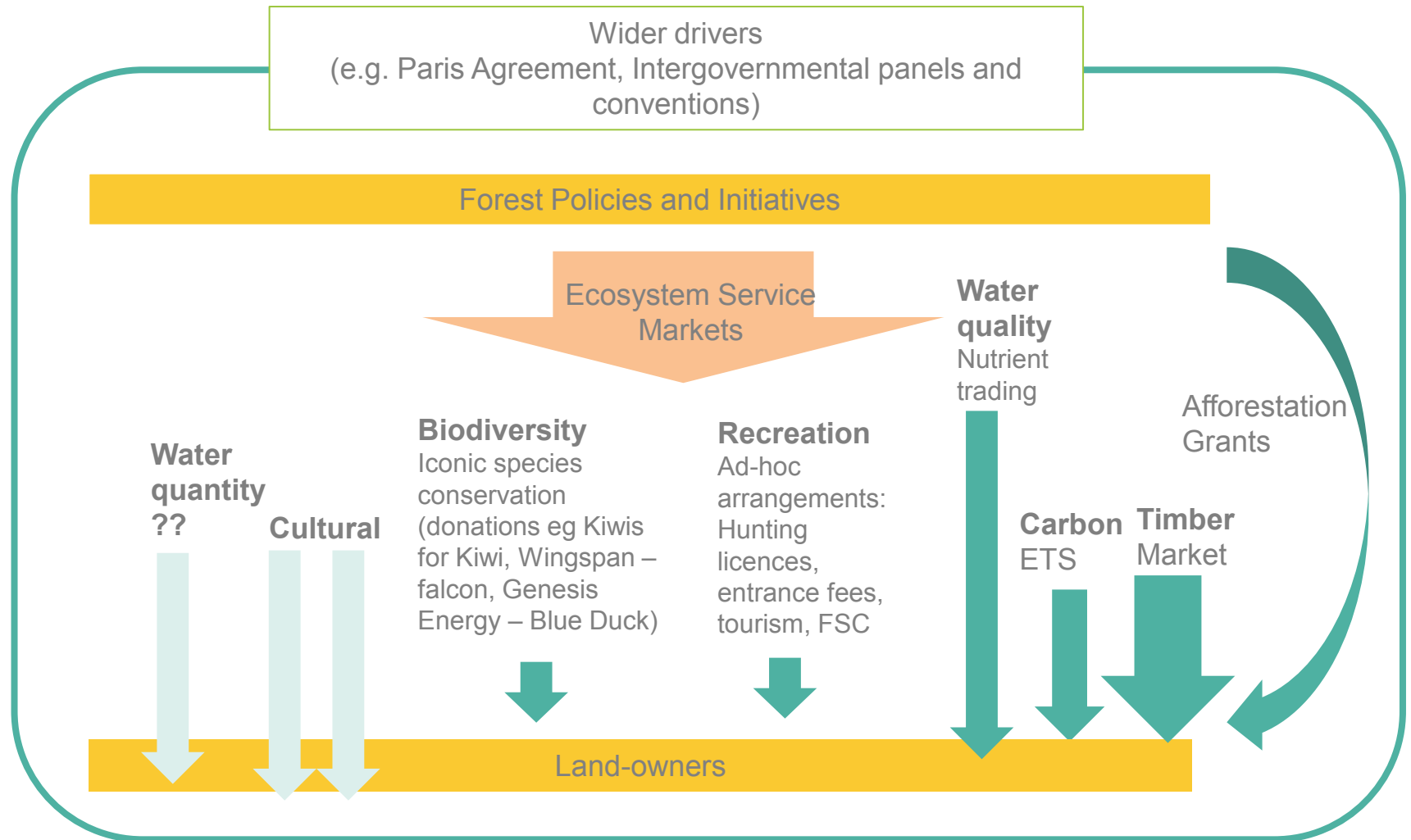


Source: Ministry for the Environment, 'New Zealand's Greenhouse Gas Inventory 1990-2013', (Wellington, NZ: Ministry for the Environment, April 2015).

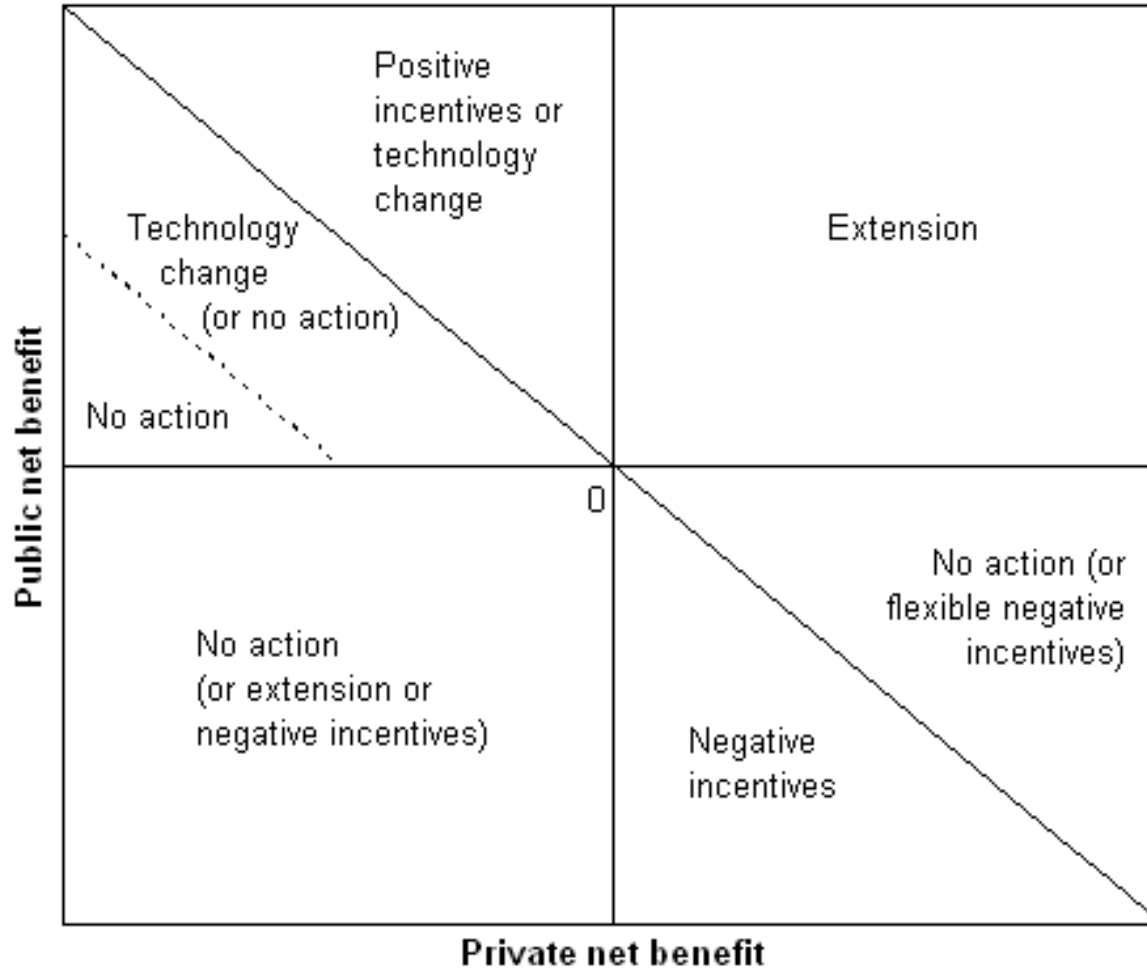
2. Understanding Planted Forests' Ecosystem Services



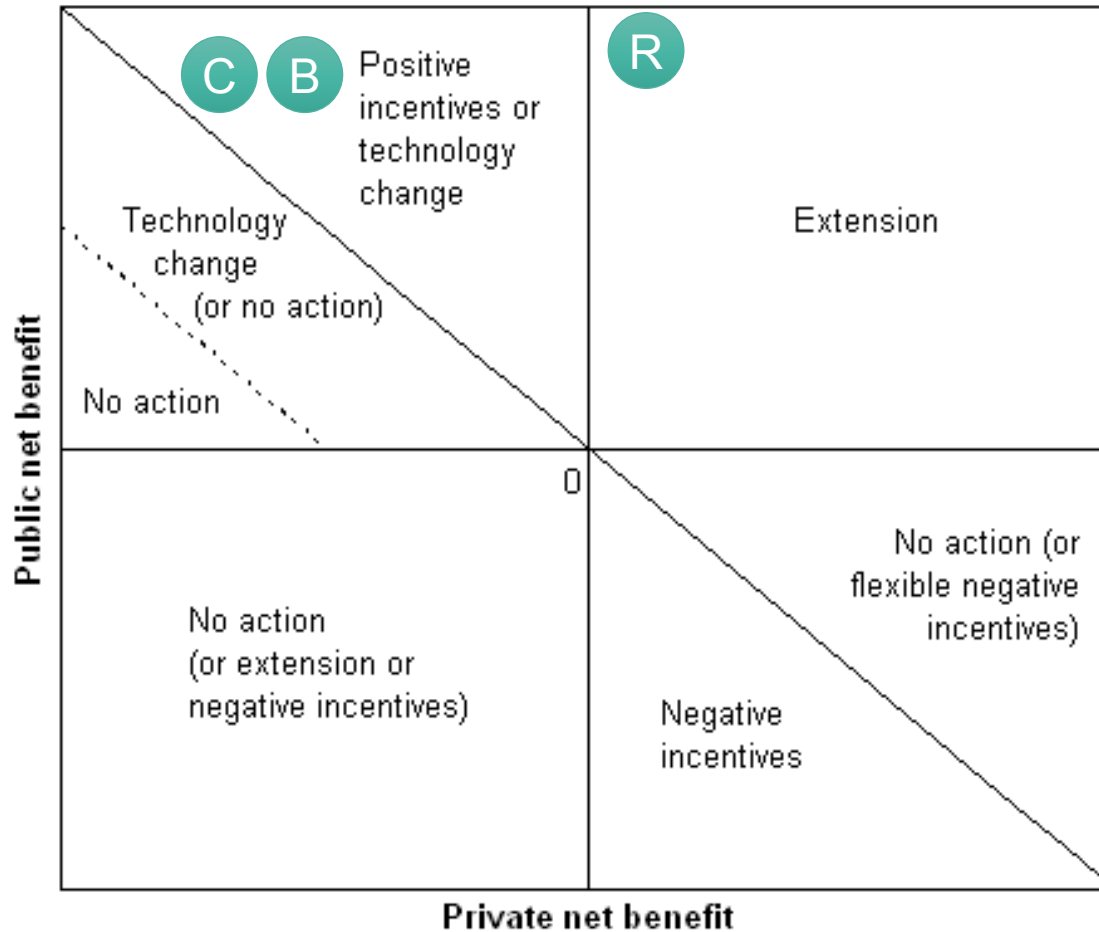
3. 'Implementation' of planted FES in New Zealand



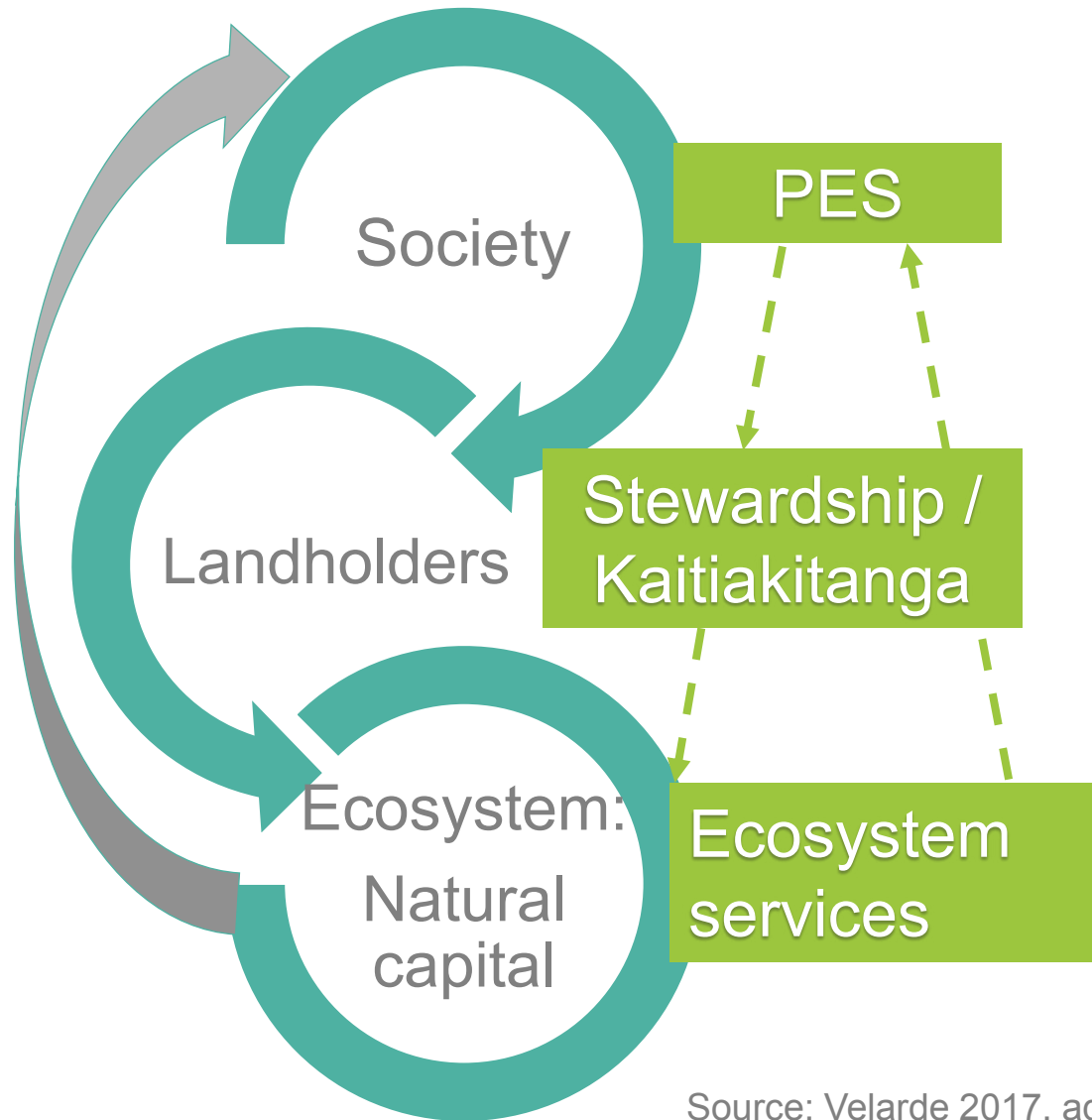
4. Selecting the most appropriate policy tool (Pannell 2008)



4b. Examples (Pannell 2008)



5a. Payments for ecosystem services



Source: Velarde 2017, adapted from Greiner et al. 2009

5b. Potential and concerns for PES

- Currently a lack of recognition of the value of ES distorts land values and decision-making
- Values generally not transferred to decision-makers
- Lack of early returns in forestry
- Some concerns:
 - The commodification of nature
 - Potential 'crowding out' of intrinsic conservation motives (eg Farley & Costanza 2010; Muradian 2013)...or 'crowding in' through improved governance and cooperation?....may depend on whether payments are collective or individual (Narloch 2011).

5c. On-going challenges of PES

- Ensuring the additionality of ES
- Assessing the effectiveness of the PES scheme – relative to which baseline?
- Distributional justice (important issue in NZ ETS)
- Property rights need to be clearly defined
- Systems approach: ‘Bundling’ of services and conflicts between services
- Need for pre-planning, baseline studies, and effective demonstration projects.

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Prosperity from trees *Mai i te ngahere oranga*

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