



Ecosystem accounting to inform decisions about forest management in the Central Highlands, Australia

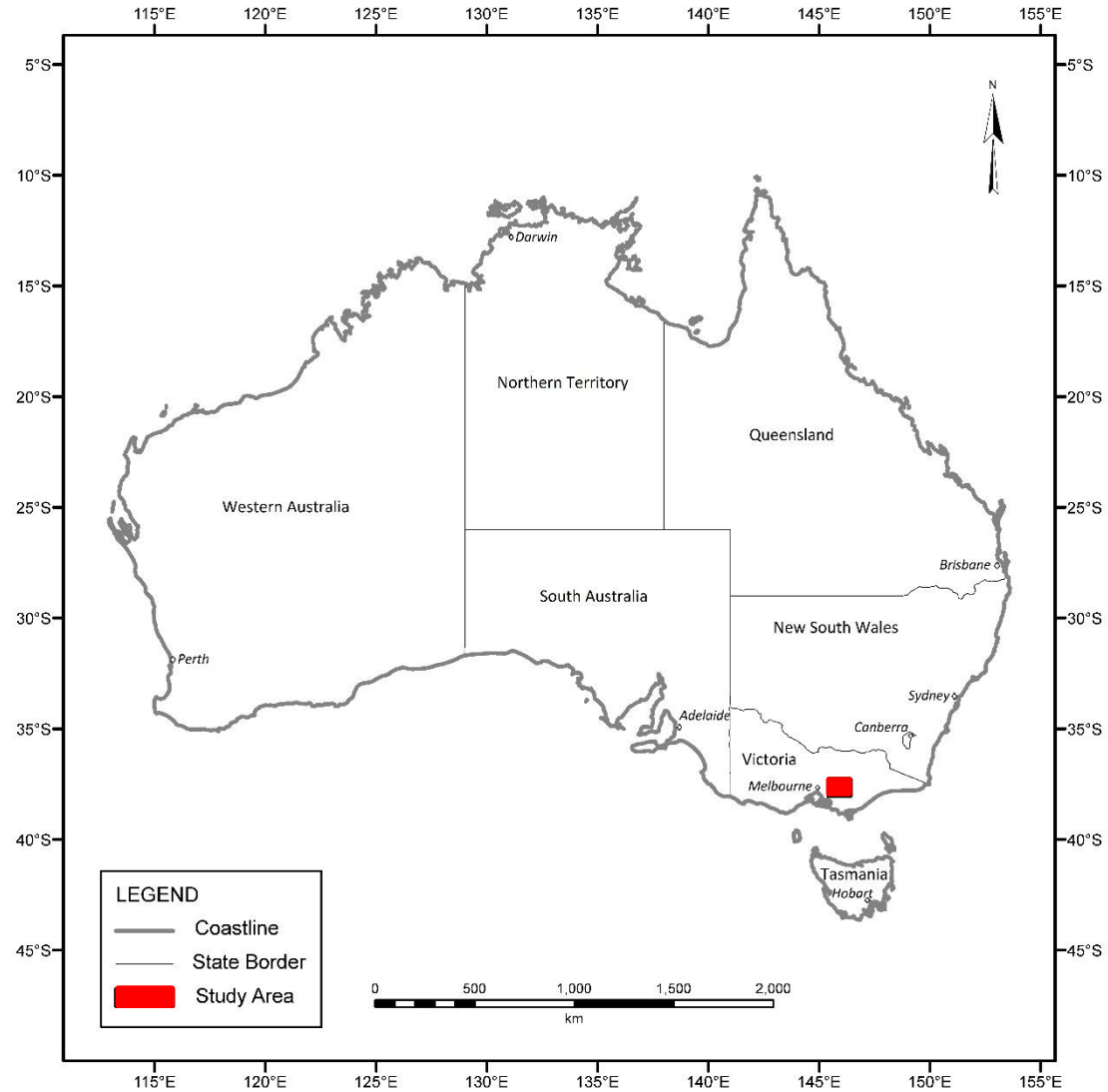
2nd Forum on Natural Capital Accounting for Better Decision-making
22-23 November 2017
The Hague Netherlands





Central Highlands, Victoria, Australia

Mountain Ash forest



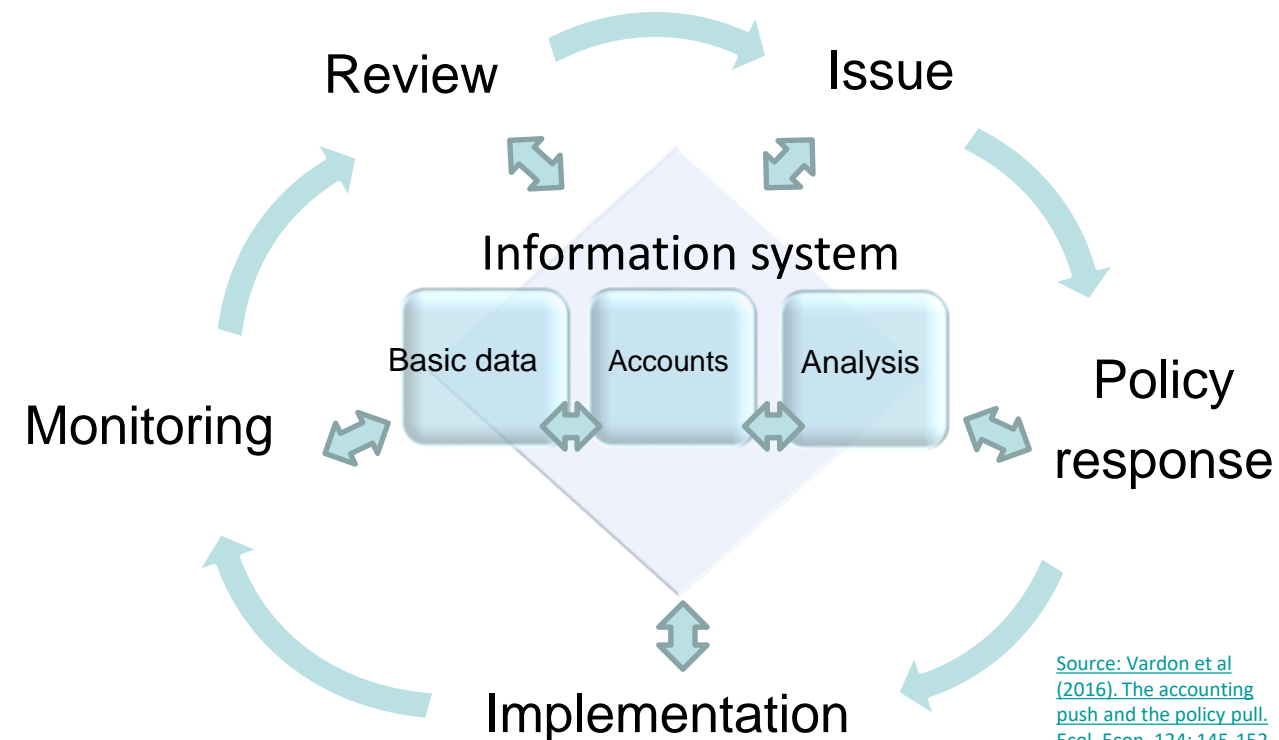
Use of forest

- What level of timber production?
- Size of national park network?



Accounts were designed and produced to feed into the decision-making process

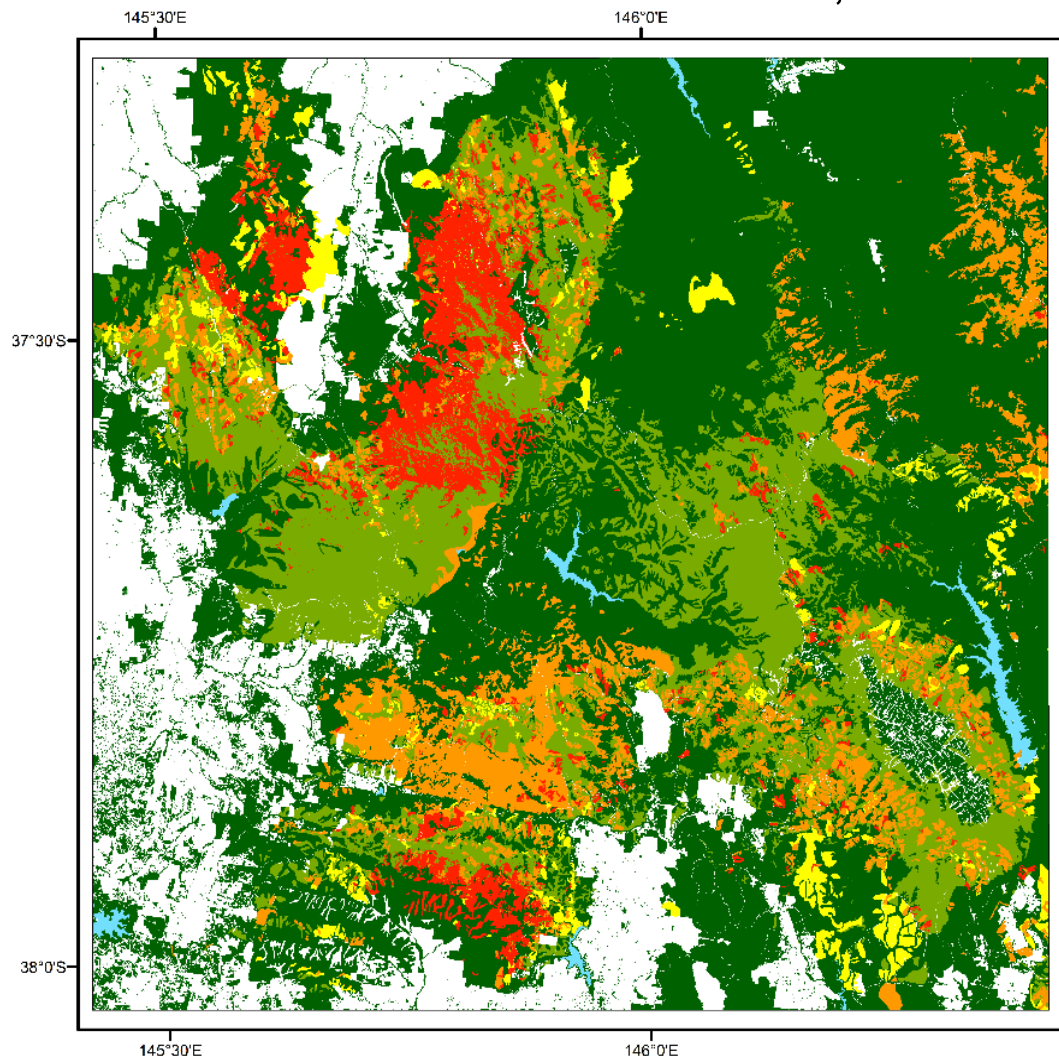
- Covered environmental and economic information
- Integrated remotely sensed data with field data on carbon and biodiversity
- Accounts plus analysis and projections



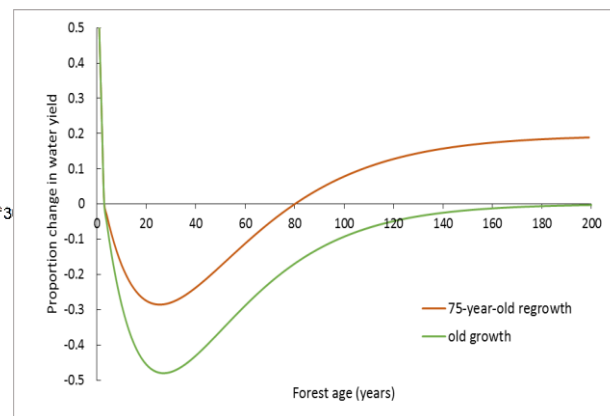
Ecosystem condition related to time since disturbance

Forest age – determined from stand-replacing events of wildfire and logging

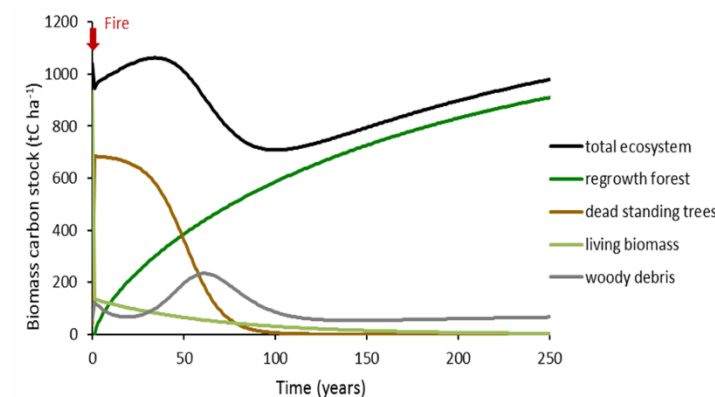
– determines water, carbon stocks and sequestration and animal abundance



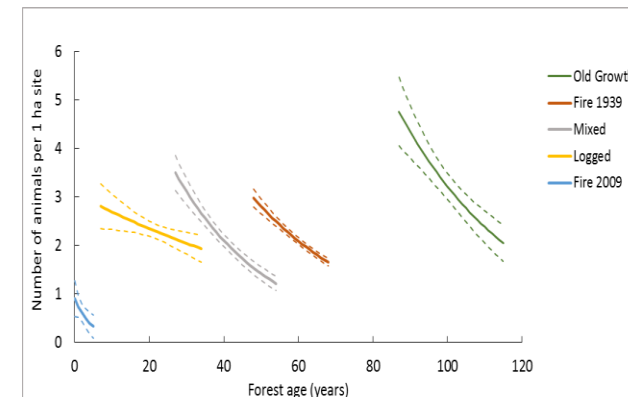
Water yield








Carbon stocks and sequestration



Arboreal animal abundance



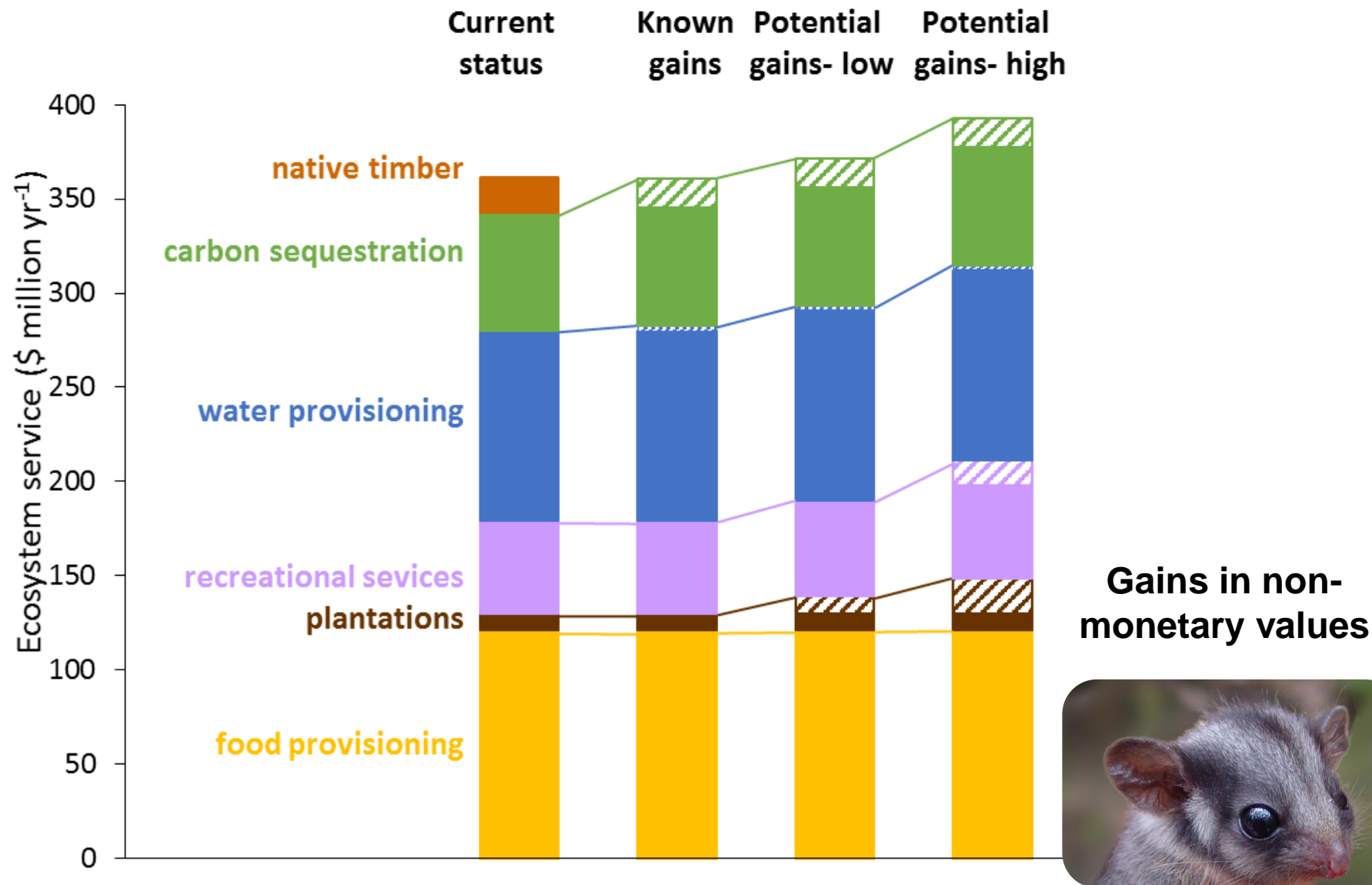
Age Class

	years old	regeneration period
	> 75	before 1939
	56 – 75	1939 – 1959
	33 – 55	1960 – 1982
	7 – 32	1983 – 2008
	0 – 6	2009 - 2015

Trade-offs defined by ecosystem services

Ceasing native timber harvesting increases:

- Carbon sequestration and water provisioning calculated – known gains
- Plantation timber provisioning and recreational services estimated – potential gains



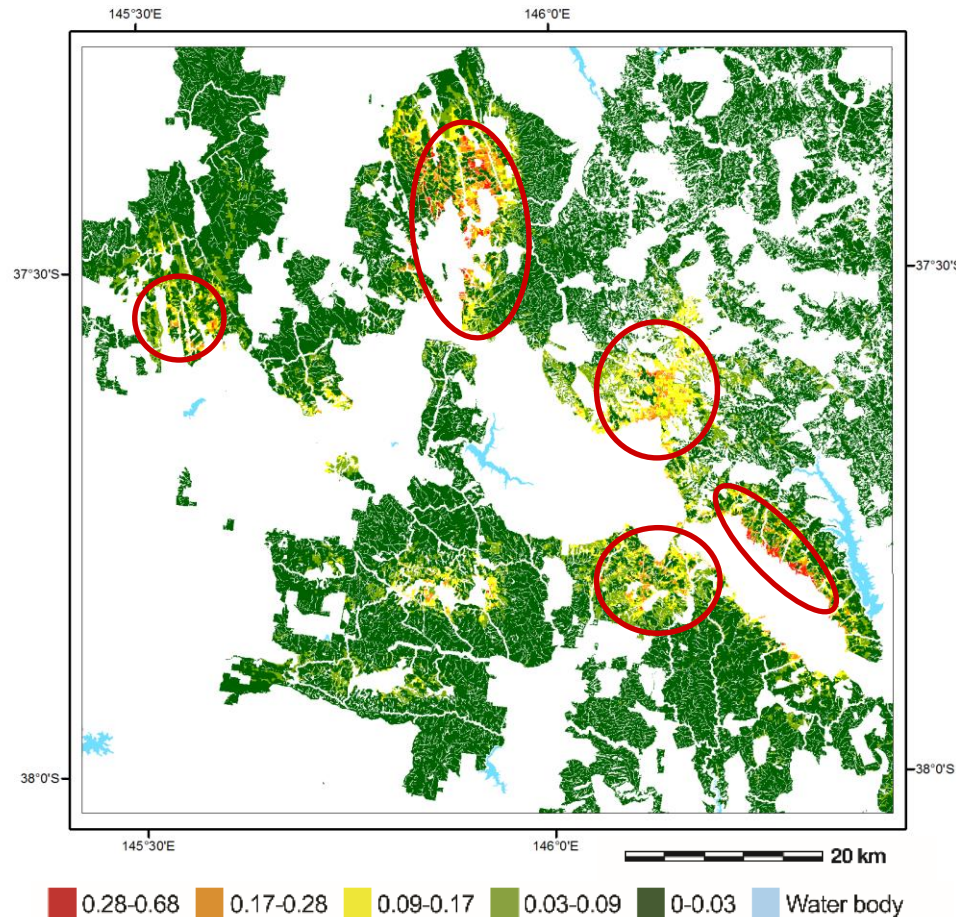
Trade-offs defined spatially

Interaction index of ecosystem services of water, carbon and timber provisioning.

'Hotspots' are the highest values for all ecosystem services.

Trade-offs are required when land uses conflict.

Native forest available for harvesting

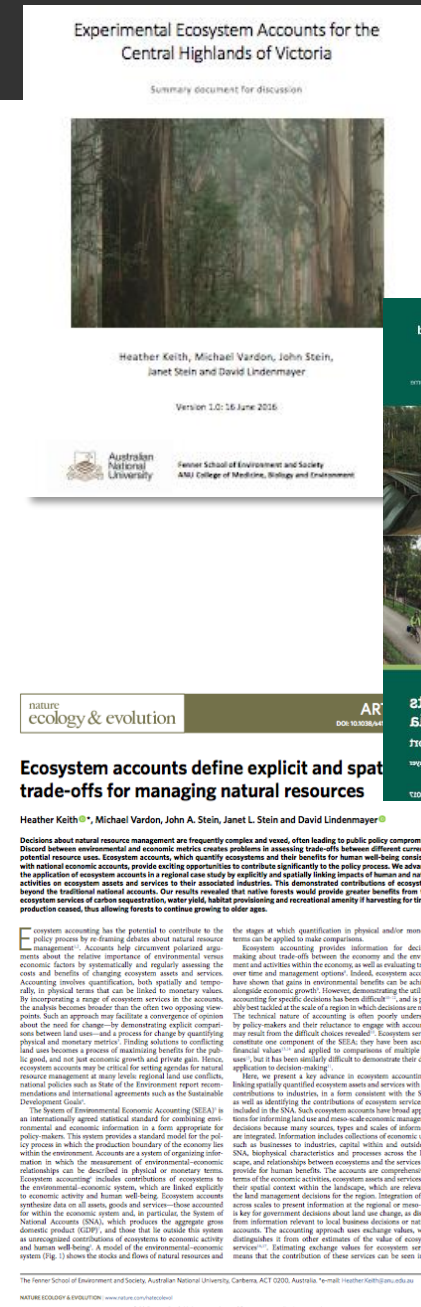


Timber harvesting reduces ecosystem services
for carbon storage and water yield



Communication

- [Draft Report](#) for discussion, June 2016
- [Final Report](#) and [Appendices](#), July 2017
- [Fact sheet](#)
- [Journal article](#)
- [Popular article](#)
- Media reporting
- Radio interviews
- Briefing for Minister



Lessons and questions

- Accounts can be designed and produced to support particular decisions
- To make an impact accounts need to be interpreted, analysed and communicated beyond what is usually done by statistical agencies
- How to bring stakeholders along, especially stakeholders that stand to lose out?