

The economic potential of carbon sequestration in WA Rangelands

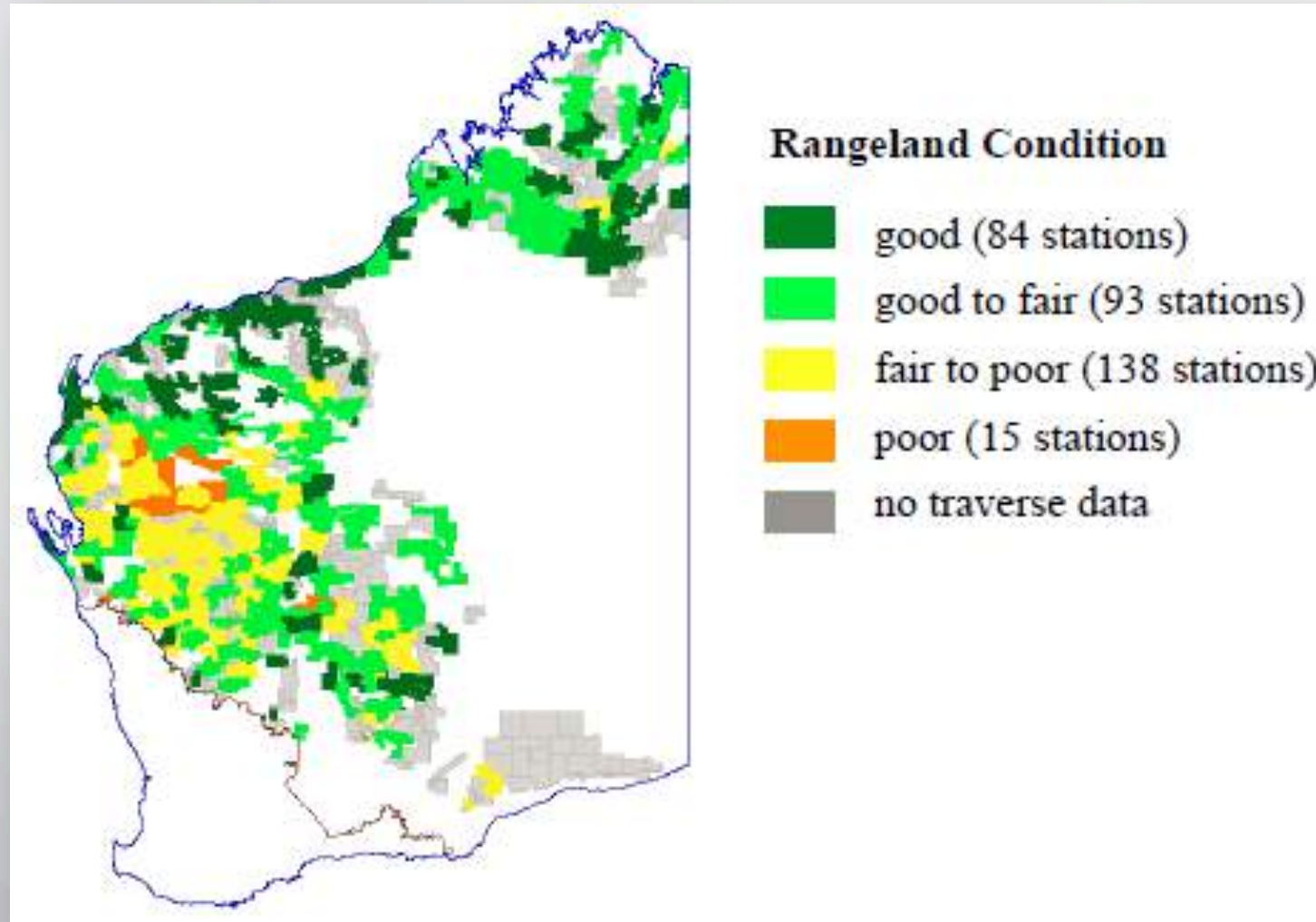
Outback Carbon Farming Conference – 17 August 2016

Dr Mark Alchin

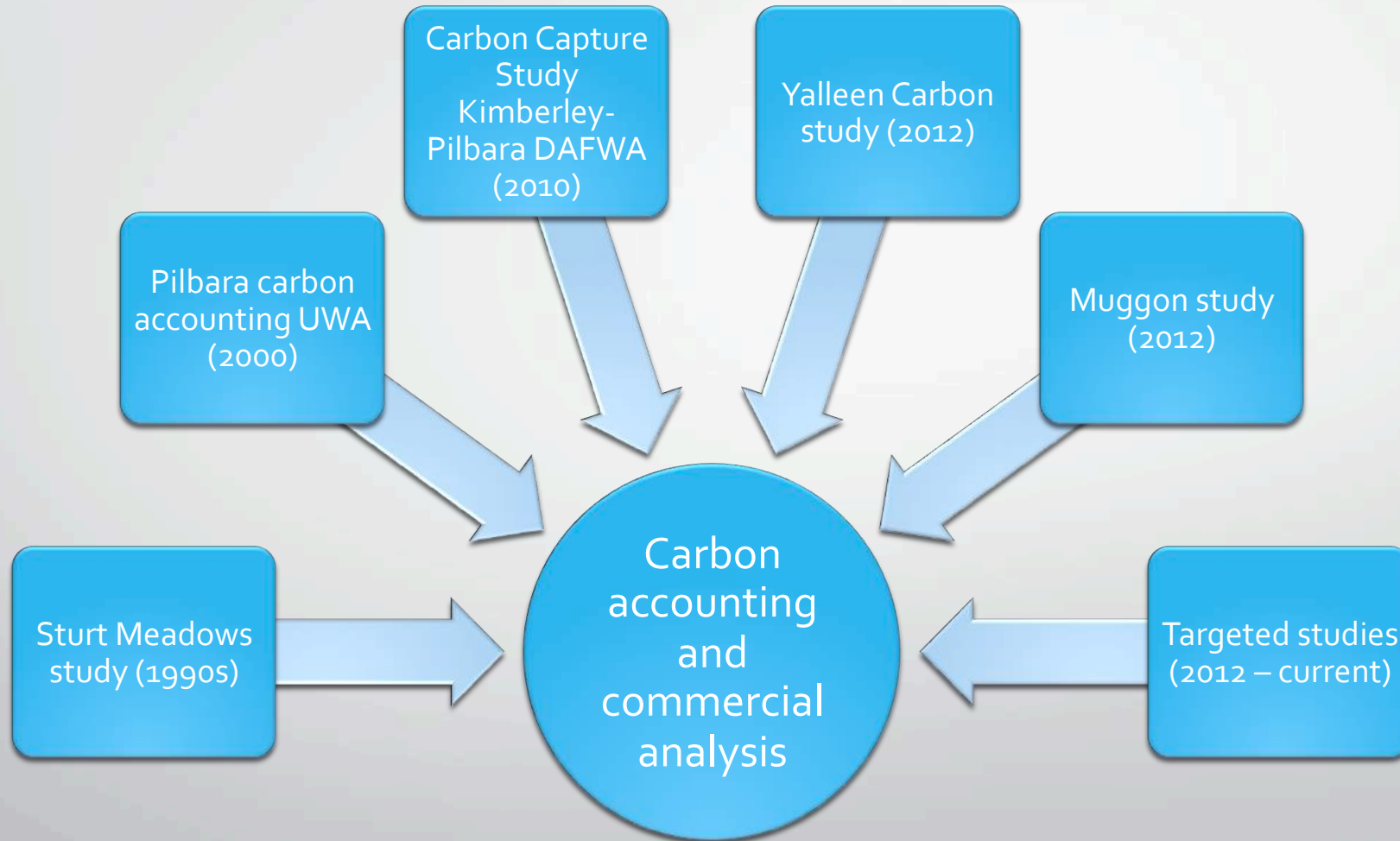
Focus

- What we know?
- What we do not know?
- What is needed to realize the potential?

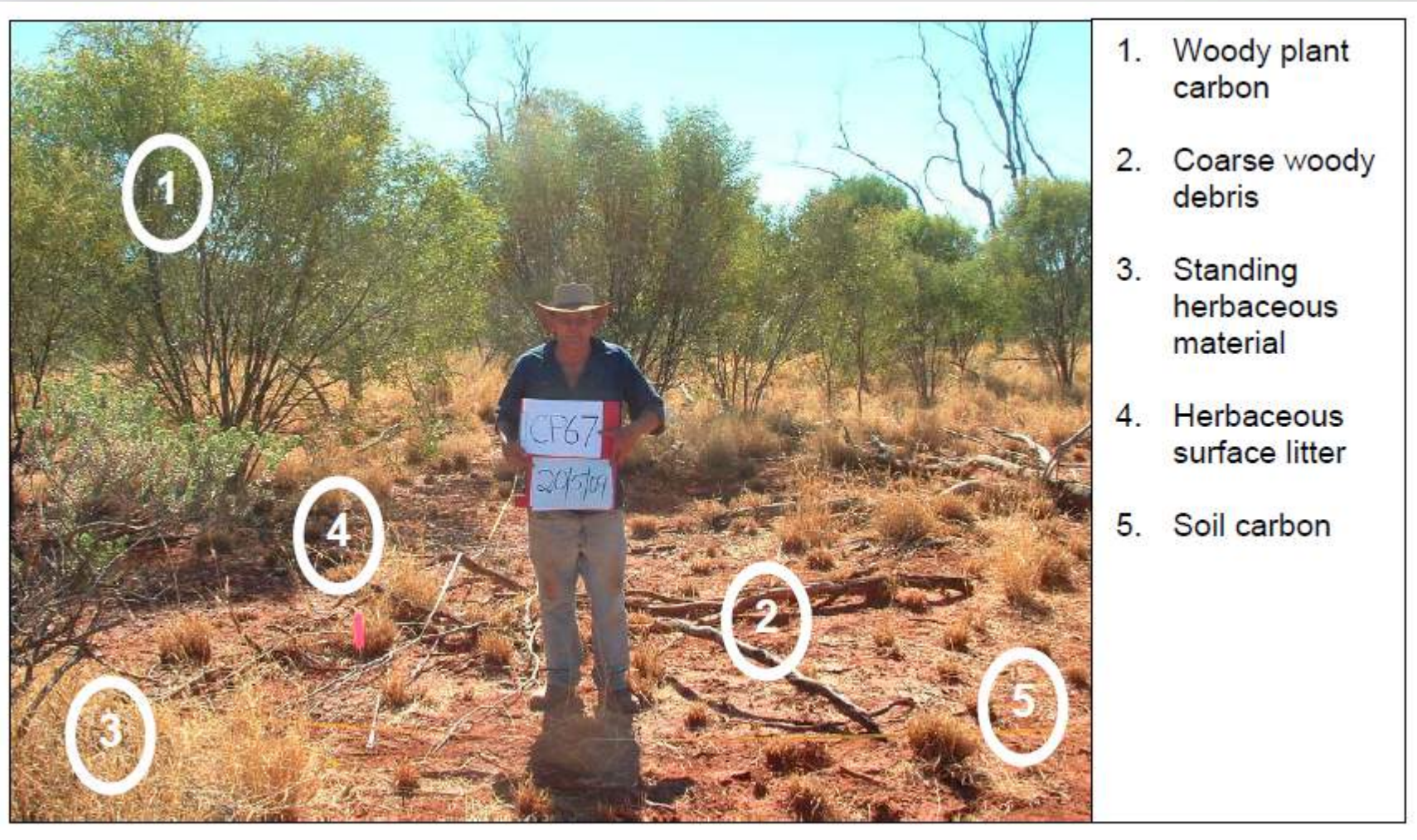
Where is the opportunity?



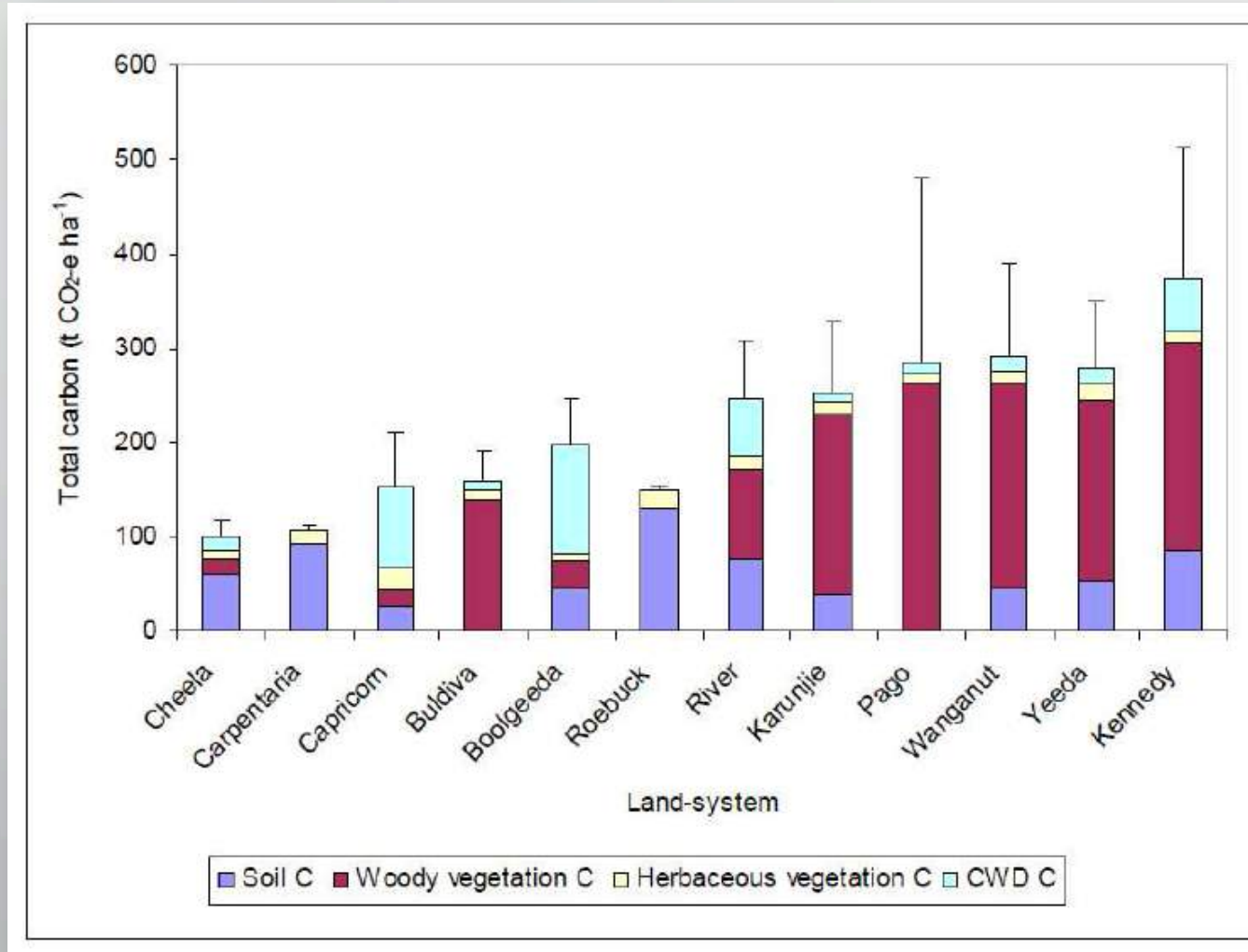
What we know – WA Rangeland studies?



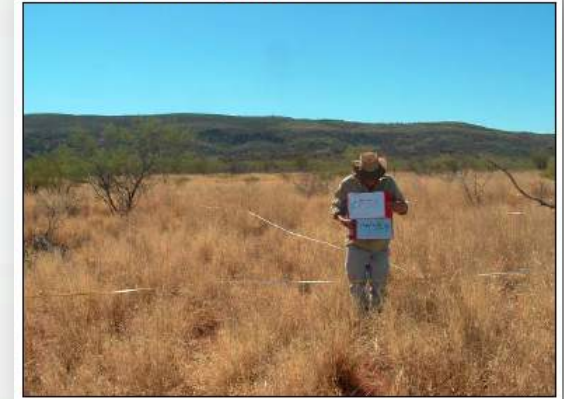
What we know - where is the carbon?



What we know – carbon stocks Pilbara-Kimberley



Cheela land-system – Cheela Plains



Kennedy land-system – Mount Barnett



What we know – Goldfields carbon stocks



Land unit	Total aboveground carbon (t Co ₂ e/ha)
Stream bank	160.8
Runoff – natural depression	160.1
Run-through/runoff	1.1
Drainage-line / runoff	86.9
Drainage but water diverted	54.3
Run through/runoff	40.5
Broad drainage floor/runon	186.6
Average	98.6

What we know?

- **Australia wide** \$1 to 2.8 billion per annum (CSIRO 2009 and Garnaut 2008)
- **Murchison region** \$570M over 30 years (1.9M ha at average 30t CO₂-e/ha @ \$10/t)
- **10 to 15% ROI** on individual business scale
- **Accounting challenges** - Variation is high (3 to 69% within a land-system)
- **Seasons drive change** in rangelands – grazing, fire and earthworks contribute

What we do not know?

- Carbon atlas across WA Rangelands
- Recovery periods and related costs
- Approval pathway
- Impacts of climate change

What is needed to realize the potential?

- Start with an 'easy' project site
- Firewall carbon enterprise from policy changes
- Derisk pilot projects by partnering
- Rangelands Carbon Methodology
- Channel the WA entrepreneur spirit and START!

The Challenge

*“It is merely a district with fertile plains which will, I believe and hope, be suitable for pastoral purposes, and, in its more northern portion, in the future for tropical culture; but those who **venture in its development** will have to **incur a large expenditure** in getting their stock to the country, and **much trouble** and difficulty and **years of toil** under a tropical sun, before they make their fortunes, and they **require the easiest terms and conditions**”.*

Sir John Forrest, Report on the Kimberley District, 1883.

Questions



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