Land Restoration FUND

Rangeland policy dialogue

Update on the Land Restoration Fund

1. Overview of LRF
2. Pilot projects
3. Science priorities and strategy

LRF Science team – Megan Evans and Don Butler

July 2019

Queensland Government

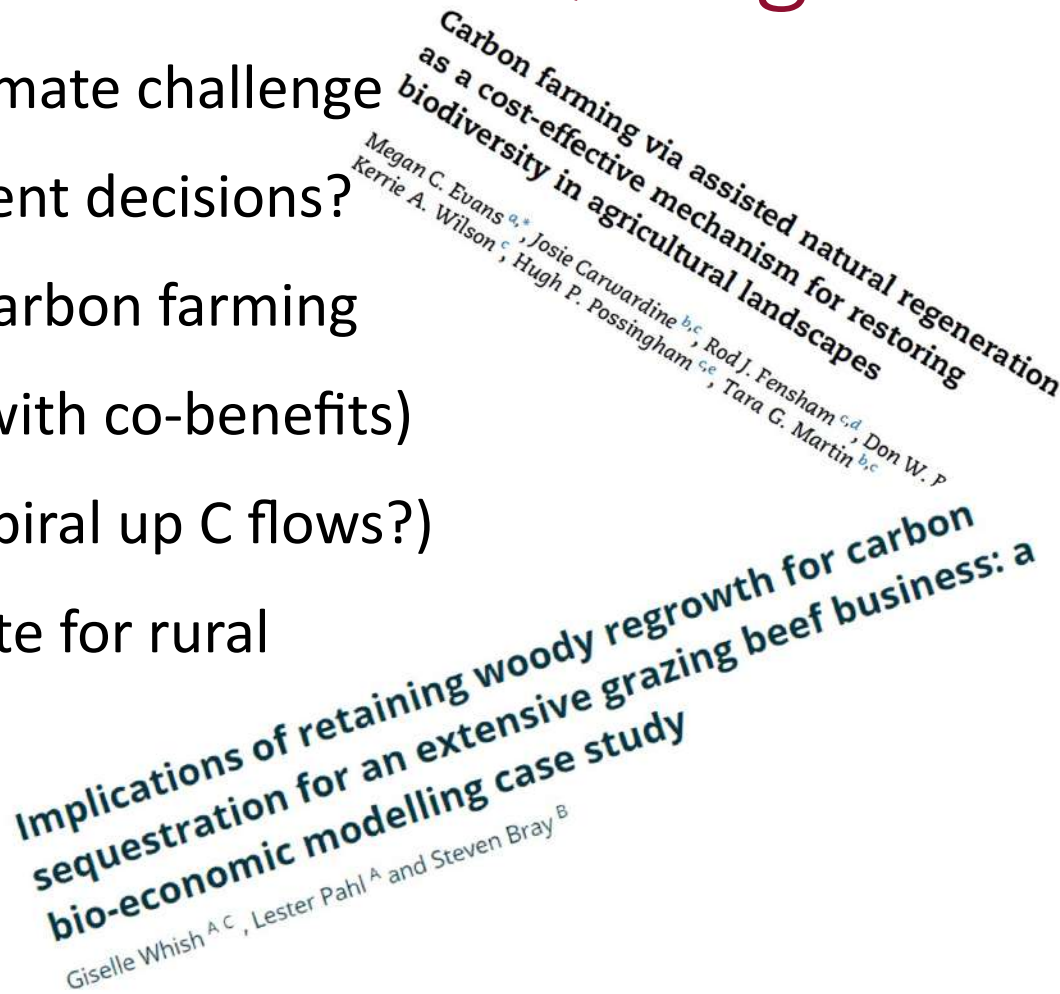
Carbon Farming – a sustainable future for Qld Ag?

part of

Land Restoration FUND

Carbon Farming – a sustainable future for Qld Ag?

- Emerging opportunity (new commodity) driven by climate challenge
- Voluntary – new types of financially viable management decisions?
- Queensland has substantial biophysical capacity for carbon farming
- Income diversification for land managers (especially with co-benefits)
- Can support adaptation within production systems (spiral up C flows?)
- Could help retain public support and license to operate for rural industries (e.g. MLA)



Carbon farming already common in two regions

Emissions Reduction Fund contract portfolio

Released 17 December 2018

$2.55 billion scheme funding

$476 million paid	$1.8 billion currently committed	Total remaining $226 million

Delivered abatement 37.7 million tonnes

Remaining delivery 155.5 million tonnes

*Figures exclude volume terminated/lapsed contracts – 13.5 million tonnes

Total contracted abatement*

Contract portfolio

Completed 20

Contracts on hand 437

477 projects under contract

NT 16

QLD 151

WA 52

SA 12

NSW 203

ACT 0

VIC 21

TAS 10

10 contracted projects revoked

5 multi-state projects

7 national projects

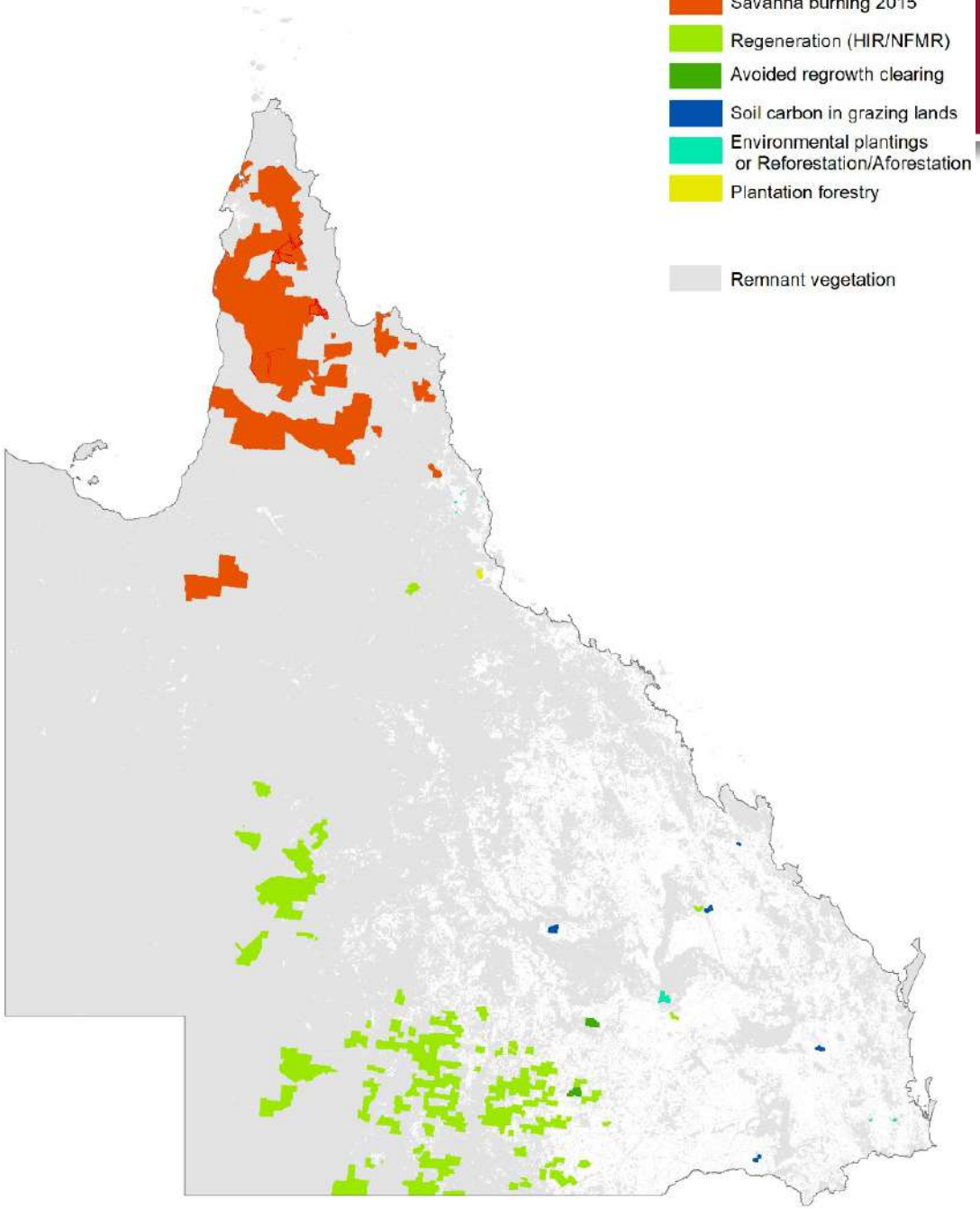
Vegetation	125.7 million tonnes
Landfill and waste	25.5 million tonnes
Agriculture	18.1 million tonnes
Savanna burning	13.6 million tonnes
Energy efficiency	5.2 million tonnes
Industrial fugitives	4.0 million tonnes
Transport	1.2 million tonnes

Auction 1	$13.95
Auction 2	$12.25
Auction 3	$10.23
Auction 4	$10.69
Auction 5	$11.82
Auction 6	$13.08
Auction 7	$13.52
Auction 8	$13.87

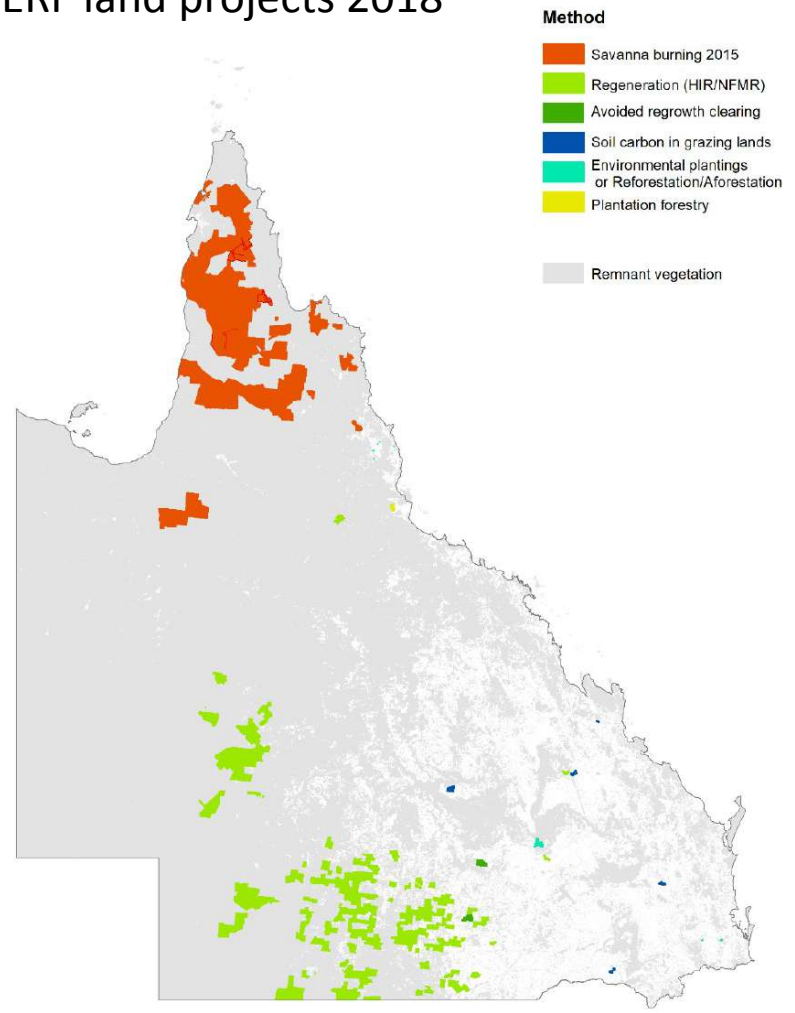
Portfolio of abatement 193 million tonnes

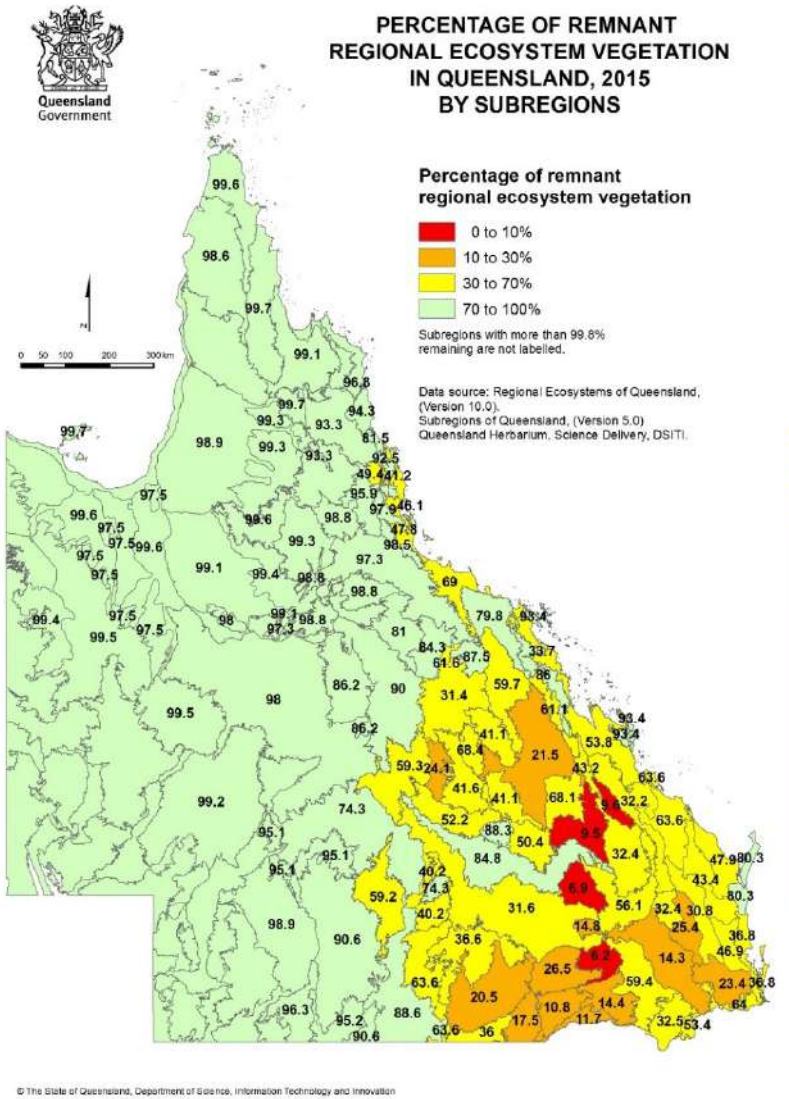
Average across portfolio $12

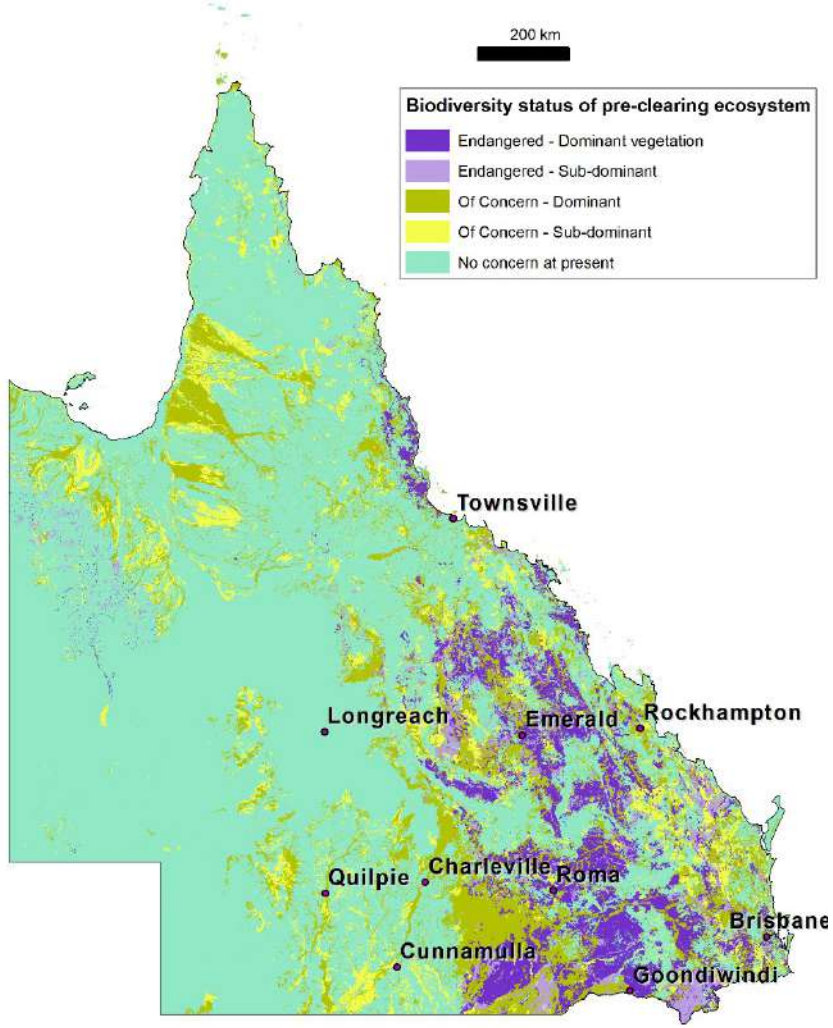
Properties with land carbon projects (~May 2018)



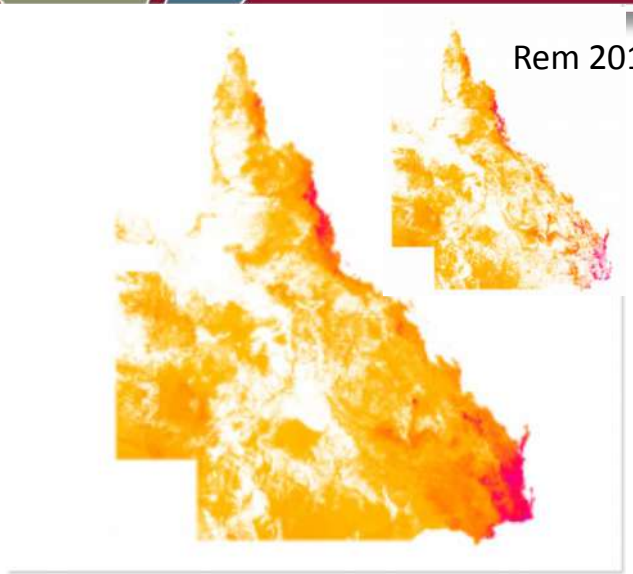
ERF land projects 2018







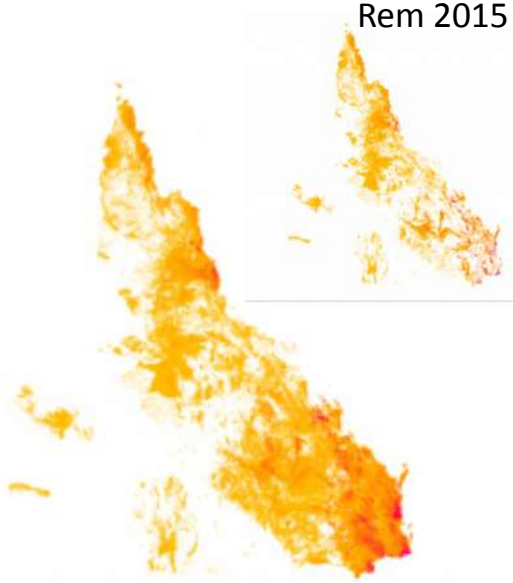
Rem 2015



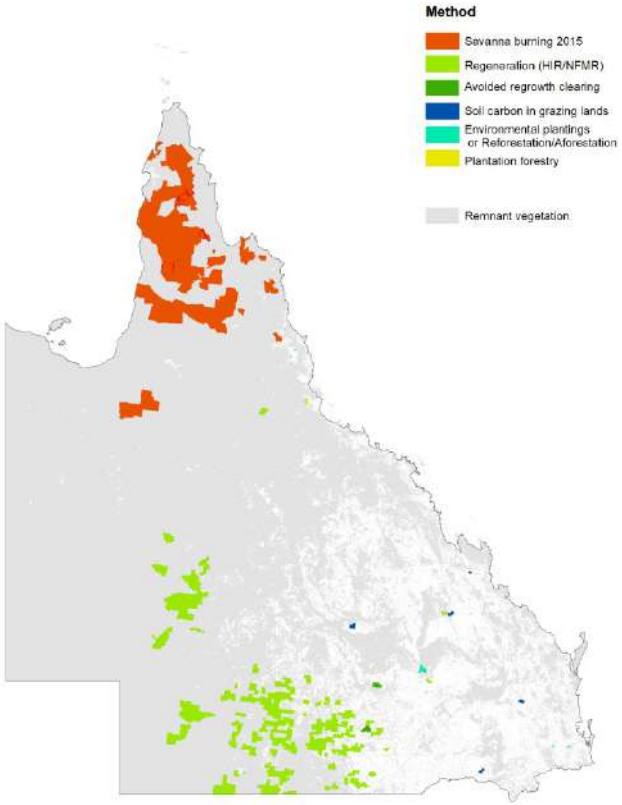
Pre-clear density of threatened fauna habitat.

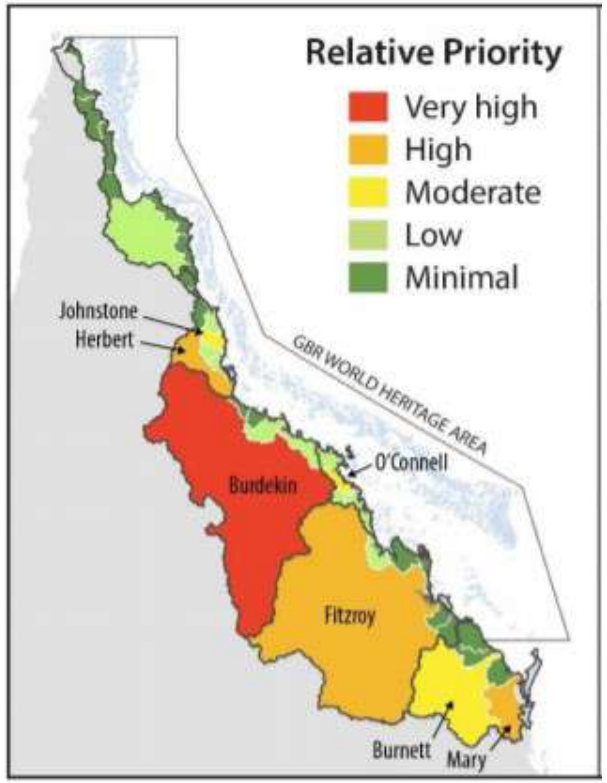
https://www.stateoftheenvironment.des.qld.gov.au/biodiversity/species-and-habitat/density-of-threatened-fauna-species-habitat

Rem 2015



Pre-clear density of threatened flora habitat.



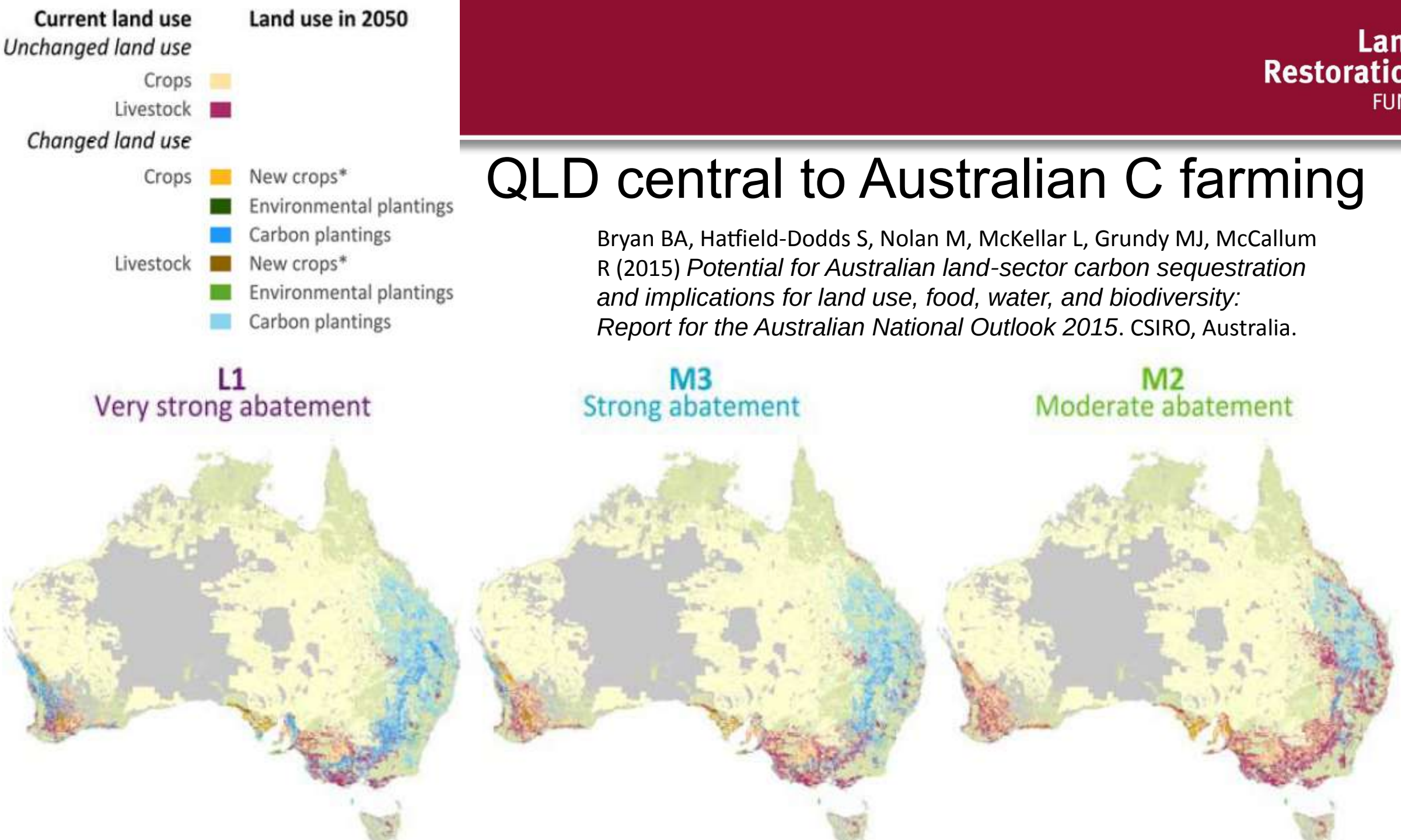


Catchment priorities for GBR water quality improvement for sediment. *2017 Scientific Consensus Statement*

Land Restoration FUND

QLD central to Australian C farming

Bryan BA, Hatfield-Dodds S, Nolan M, McKellar L, Grundy MJ, McCallum R (2015) *Potential for Australian land-sector carbon sequestration and implications for land use, food, water, and biodiversity: Report for the Australian National Outlook 2015*. CSIRO, Australia.



LRF Objectives

Land Restoration FUND

1. Facilitate a pipeline of qualifying Queensland-based **carbon** offset projects
2. Pursue environmental, social and economic **co-benefits** as defined by the government
3. Support R&D into emerging areas where Queensland has a comparative advantage for the purpose of establishing eligibility as **Australian Carbon Credit Units** (ACCUs)

Co-benefits:

Direct positive outcomes associated with carbon farming projects that are additional to the carbon emissions avoided or carbon stored. They can be social, economic, environmental or cultural benefits

LRF establishment

Land Restoration FUND

- Governance and entity structure – proposal awaiting cabinet approval
  - Fund to be established second half of 2019, calls for projects to follow soon after…
- Collaboration –DES & Treasury with numerous partners (NRM regions Qld, Wentworth)
- Interdepartmental committee for oversight (Treasury, Premiers, DES)
- Policy and projects unit within DES
- Directions developed through extensive consultation
- Stakeholder engagement began early and is ongoing (next slide)
- Science strategy

Operational requirements

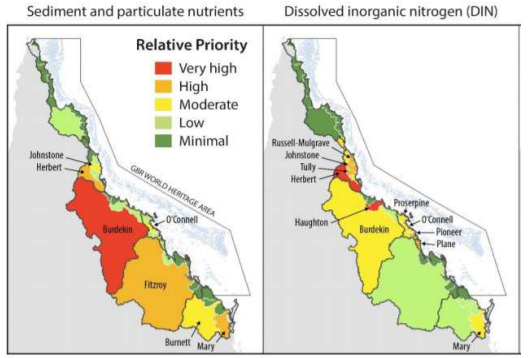
Land Restoration FUND

- Self-sustaining and enduring (on-sell)
- Maximise value and meet co-benefit objectives – payment on delivery
- Ensure projects meet ‘fit and proper’ person
- Ensure projects meet additionality requirements
- Regular, third-party auditing of projects and regular monitoring of co-benefits delivery
- Promoting and facilitating private sector co-investment
- Undertaking scientific research and development into new carbon farming methods acceptable to the method regulator (Commonwealth)
- Government will be the cornerstone investor
- LRF entity operates at arms length to government

Linkages – Qld

Land Restoration FUND

- Queensland Climate Change Response
  - Queensland Climate Transition Strategy & Climate Adaptation Strategy
  - Vision: an **innovative** and **resilient** Queensland that **addresses the risks** and **harnesses the opportunities** of a changing climate
  - GHG emission targets: 30% below 2005 levels by 2030; net zero by 2050
  - Sector Adaptation Plans, Economic transition
- Agriculture and forestry policies
- Regional NRM policy and funding, Statewide indicators
- Reef water quality improvement
  - Paddock to reef
  - Payment on delivery
  - Reef Credits
- Biodiversity – Biodiversity strategy, Koala strategy



Linkages – Qld (cont.)

Land Restoration FUND

- Environmental offsets
  - Additionality considerations
  - Biodiversity priorities (e.g. koalas, threatened species & ecosystems)
  - Review of the environmental / biodiversity offsets framework (another election commitment)
- Vegetation information base
  - SLATS and condition mapping project (RSC&BRI)
  - Regulatory baselines & additionality
- Protected area management and policy
- Carbon Plus fund – offsetting Government vehicle emissions, investing in co-benefit methods

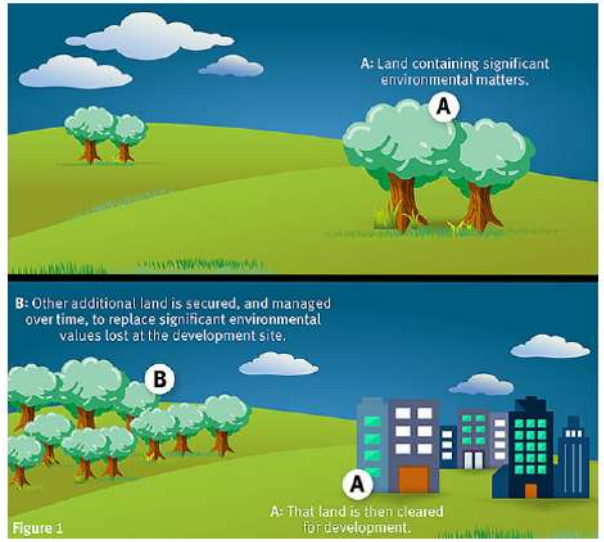


Figure 1 - providing an environmental offset


Environment ▸ Climate change Wildlife Energy Pollution

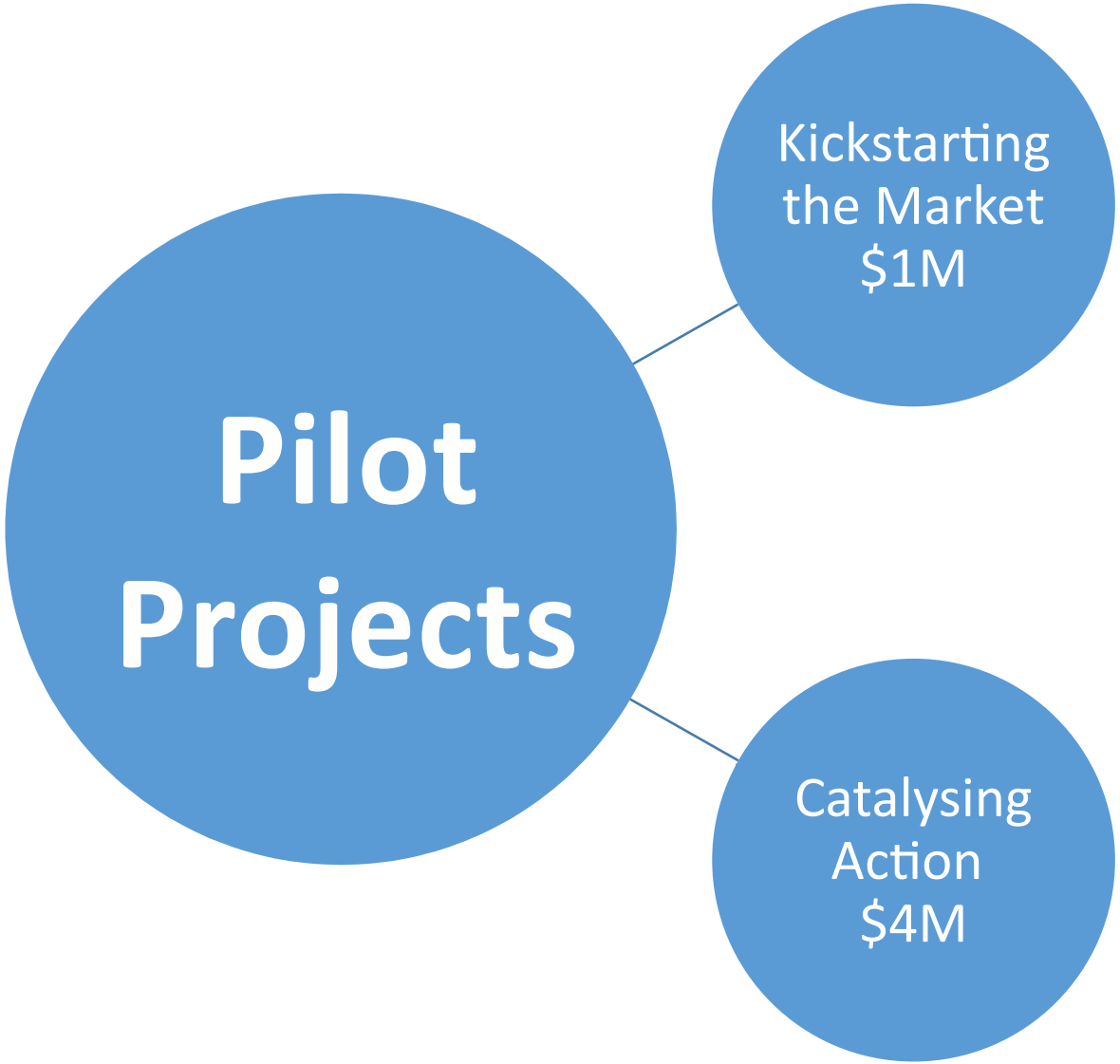
Emissions trading
Our wide brown land

Land-clearing wipes out $1bn taxpayer-funded emissions gains

Linkages – broader headwinds

Land Restoration FUND

- Payment on delivery of outcomes – not just ‘market based’
- Impact investment & private conservation - SDGs
- Natural capital / Environmental accounting / Environmental economic accounting
- Regenerative farming
- Consumer power - premium goods, social license
- Blue-carbon
- PARIS (Article 6) / CORSIAR / ~~Neg~~ Safeguard



- **Facilitating on-ground project delivery**
- Engagement
- Scoping/Analysis
- Program design

- **On-ground projects**
- Current ERF methods
- Blue Carbon demonstration

Pilot projects

Land Restoration FUND

The objectives

Strengthen the foundations for a flourishing market for carbon and other ecosystem services in Queensland

broaden the application and scope of the existing carbon farming industry in Queensland.

By funding projects that…

catalyse land manager participation

demonstrate how carbon farming activities generating co-benefits can work

form a basis to facilitate the first investments of the Land Restoration Fund

Pilot projects

Land Restoration FUND

Kickstarting the Market ($1M total)

52 eligible applications

$200,000 maximum per project

Six projects funded

Terrain NRM, Cape York NRM, Balkanu, WWF, Southern Gulf NRM, Deakin Uni

Catalysing Action ($4M total)

42 eligible applications

$750,000 maximum per project

16 short-listed EOIs

Projects have been notified, public announcement shortly

LRF Science Strategy

Land Restoration FUND

Two themes follow directly from election commitment (supported by consultation)

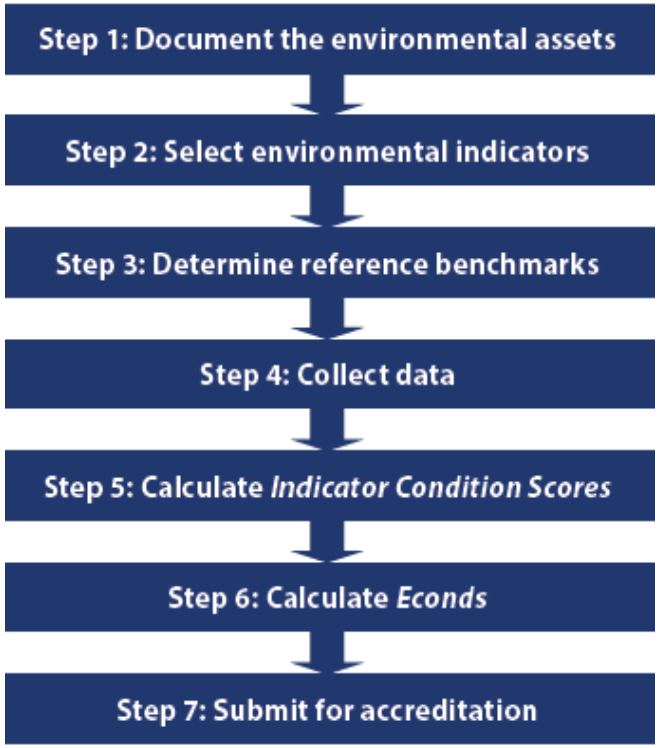
1. Co-benefit assessment, verification and reporting
   - prioritisation
   - accounting standard
   - accounting indicators and protocols
   - research into outcomes from common carbon activities (e.g. savanna and regrowth)

2. Carbon method development
   - Vegetation methods - avoided clearing of regrowth
     - rangeland management (pilot)
   - Blue carbon - restoration of tidal flow (pilot)
     - restoration of estuarine forest (pilot)
   - Next generation: - nitrogen management in cane
     - pig control for tropical wetland restoration
     - pasture management & livestock science (MLA etc.)
   - Project tools - mapping, planning, sampling etc.

Condition accounting for project monitoring

Land Restoration FUND

- Additional – credit the difference between what does happen in a project and what would most-likely have happened without the project
- Social, economic, environmental and cultural domains
- Within the environmental domain Environmental Accounting provides a framework for measuring change (e.g. our familiar report cards and *Accounting for Nature*)
- Project accounting will provide case studies to develop Regional and State scale accounts
- Partnerships include Accounting for Nature (Wentworth), NRM regions QLD, QFF



Seven steps for constructing environmental asset condition accounts
(Wentworth Group, 2016)

How might it work?

Illustrative only, LRF likely to use multiple funding pathways

1. Communicate priorities

Investment priorities (PIP) e.g.:

- Coastal & aquatic ecosystems
- Threatened species
- First nation and regional economies

Investment Round Guidelines (IRG)

- published for each investment round
- describes how PIP will be implemented for that round

2. Project proposals - EOI

- Describe projects (ERF method, activity etc.) and co-benefits in terms of land use change, anticipated vegetation condition change, and social and economic impacts (baseline and project scenario over 25 years)
- Include maps showing broad vegetation condition classes for baseline and project after 25 years
- Indicative ACCU volume and price

3. Shortlist

- Indicators from PIP applied as described in IRG
- May award small grants to cover cost of developing detailed proposals

4. Detailed proposals

- Project descriptions validated with data
- Refined targets and milestones for environmental asset condition change over 25 yrs, and social and economic impacts over 5 yrs
- Specify any measures to secure outcomes in perpetuity
- ACCU volume and price per ACCU (including co-benefits, i.e. bundled)

5. Contracts offered (to 10+ yrs?)

- Conditional on ERF registration
- Specify ACCU only price plus co-benefit premium if milestones met
- Environmental co-benefit milestones expressed in property-scale environmental accounts for relevant domains
- Social and cultural co-benefit milestones expressed in relevant indicators

6. Projects delivered

- ERF reporting and ACCU transfer
- ACCU price as agreed plus co-benefit $'s prorated against milestones
- Evidence of social and cultural co-benefits (indicators, core benefits if nominated)
- Asset condition reporting for environmental co-benefit milestones

LRF co-benefits program

Land Restoration FUND

Pilot projects

- *Kick starting the market ($1 million)*
- *Catalysing action ($4 million)*

Other interested land managers and regional bodies

Pool of projects to trial *property-scale* environmental accounting

Science

1. Co-benefit assessment, verification and reporting
2. Carbon method development *e.g blue carbon*

- Standard(s) (*rules, processes*)
- Methods/protocols *indicator selection, measurement, reporting*
- Research into co-benefits from common carbon activities

Next 12 months...

- Co-development, testing, refinement of *Standard(s)* and *Methods/protocols*
- *Training* to enable land managers and regional bodies to develop *property-scale* and *regional-scale* environmental accounts
- Lessons from broader LRF Science program and use of environmental accounting elsewhere feed into co-benefits program, & vice-versa

Scales of accounting

Property scale

- Primary target for next 12 months
- Open source principles, software/tool agnostic
- Accounts independently accredited

Regional accounts

- To pursue concurrently with property scale accounts over next 12 months
- Develop to be consistent with and inform property and State account development
- Learn from previous regional trials
- Regional support and literacy crucial for property scale accounting

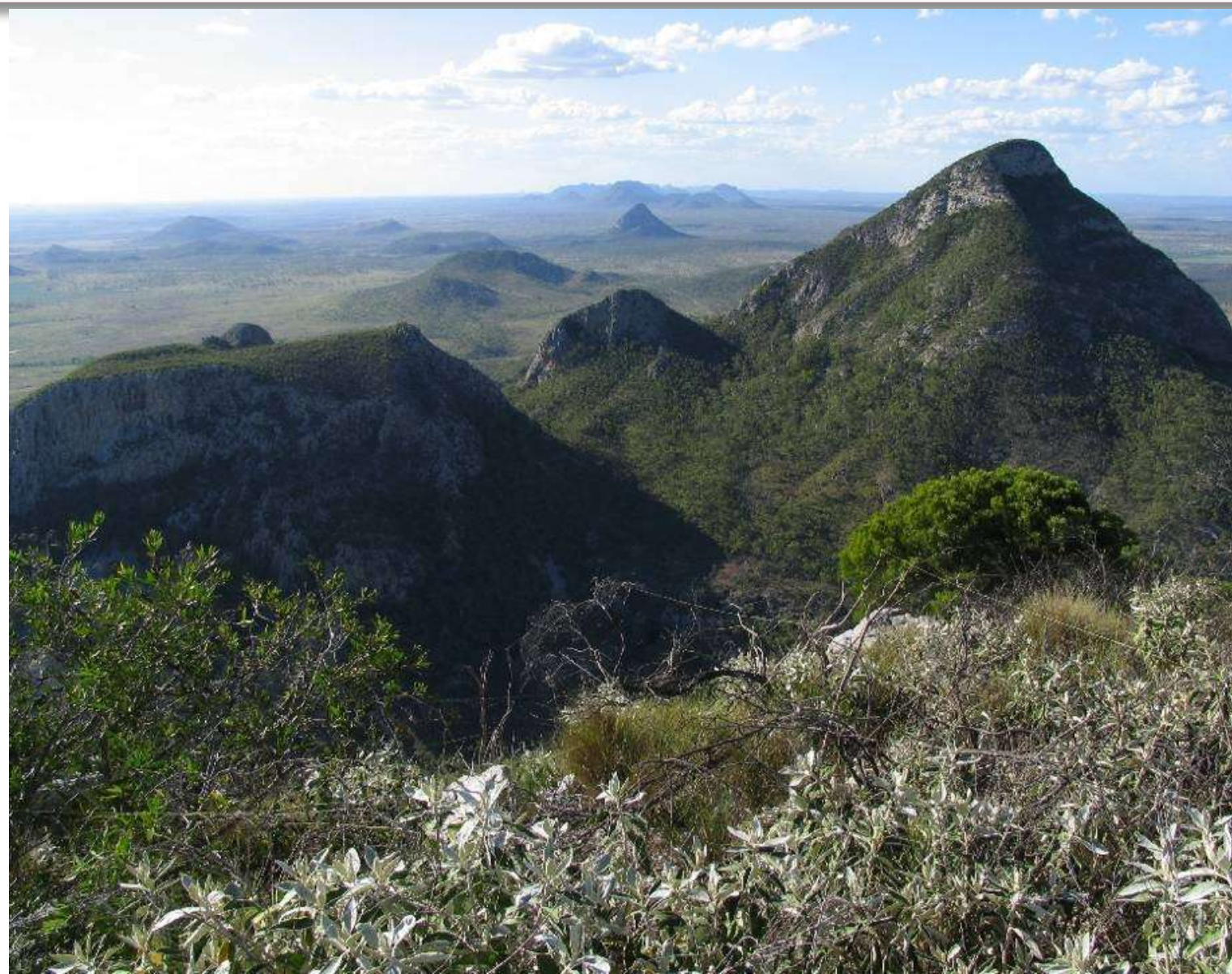
State accounts

- Aspirational goal to achieve in next 3-5 years
- Intersects Enhanced SLATS and statewide condition mapping projects

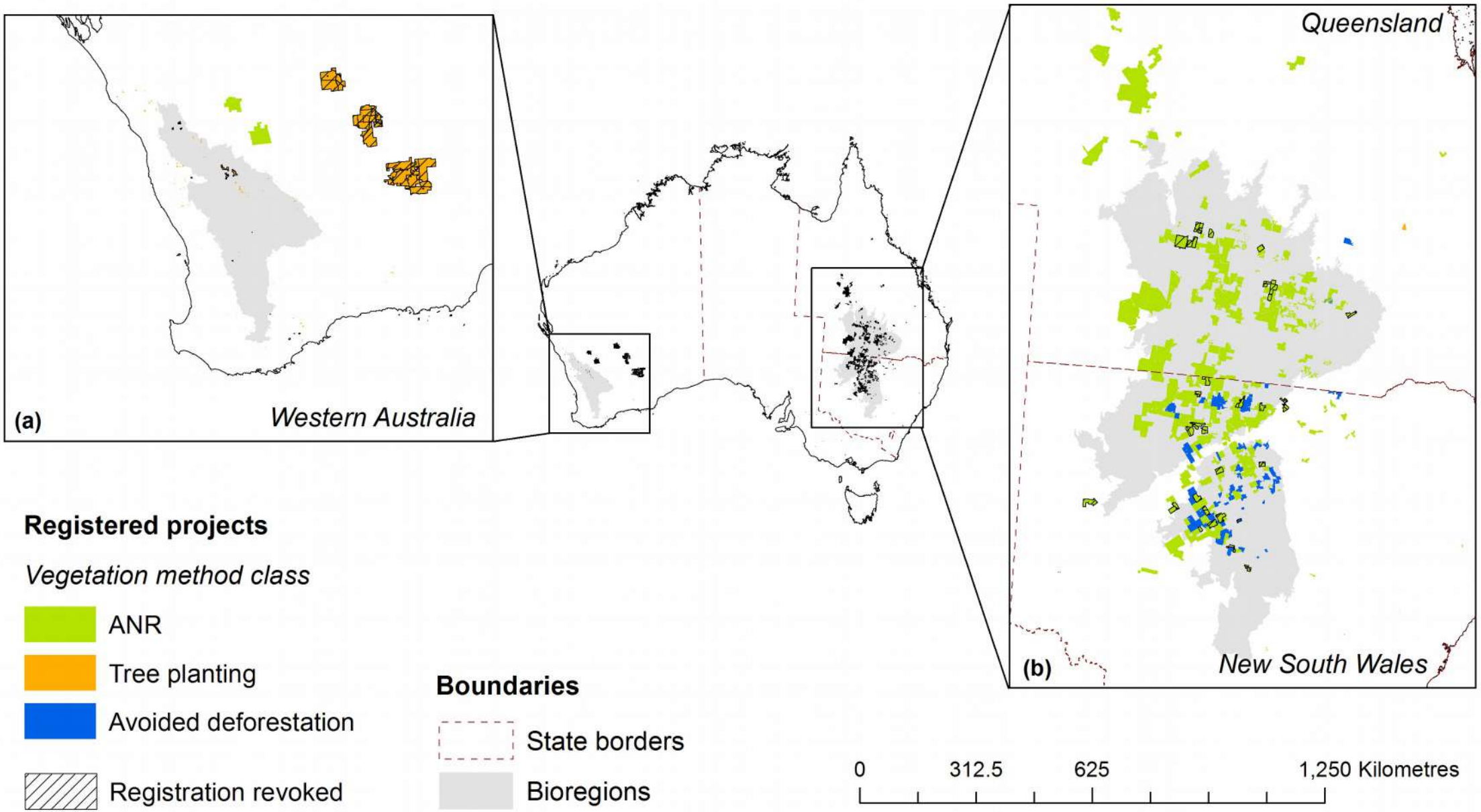
Summary

Land Restoration FUND

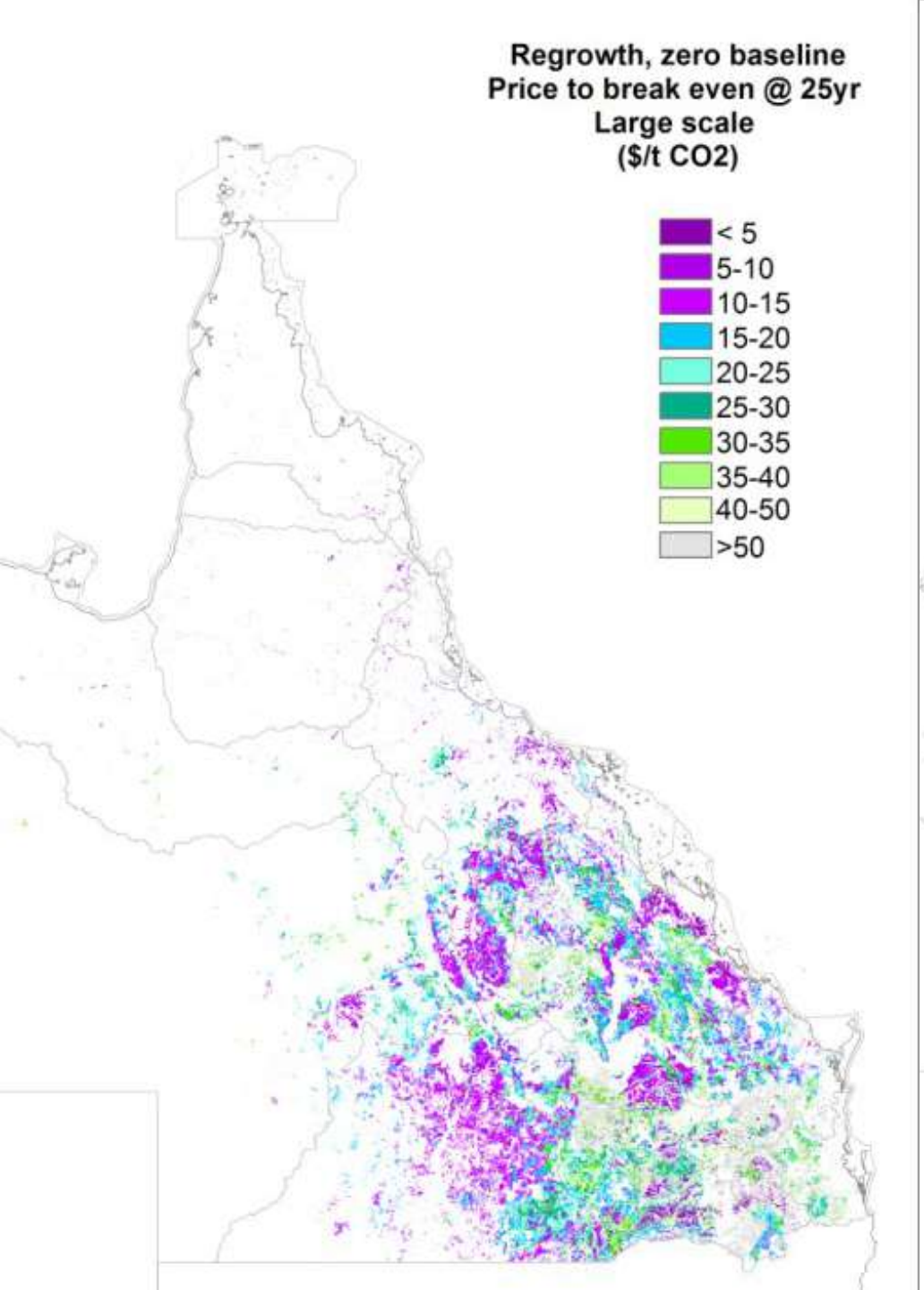
- Fund being established
- Voluntary, carbon plus
- Research focussed on accounting for co-benefits, and better carbon methods
- Actively avoiding re-inventing wheels
- Looking to support and build knowhow, and to deliver on suite of priorities
- Hoping to facilitate new opportunities for land managers

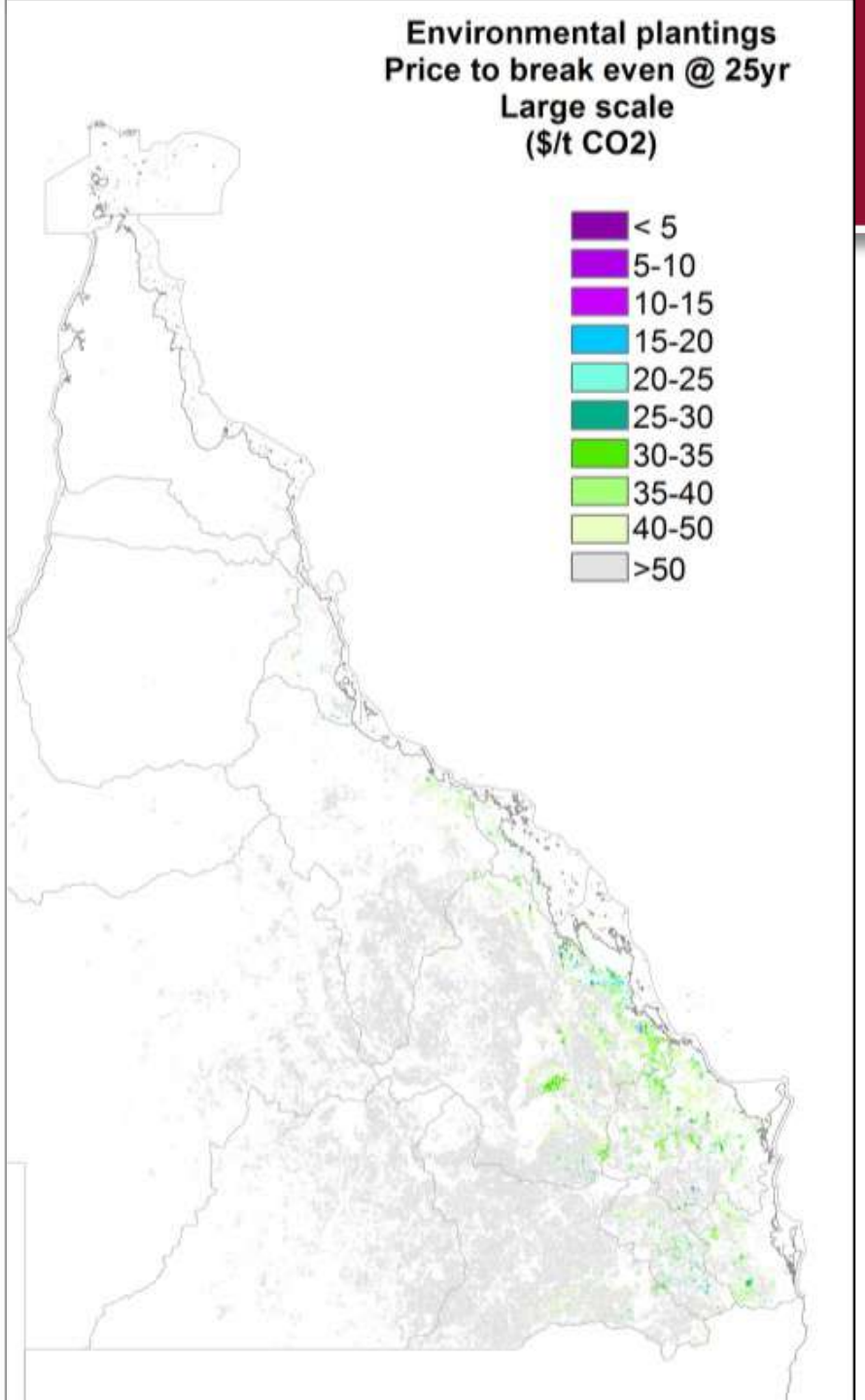


Registered vegetation projects (as of May 2018)



Evans MC. 2018. *Current Opinion in Environmental Sustainability* 32, 38–45. https://doi.org/10.1016/j.cosust.2018.04.002





Land Restoration FUND

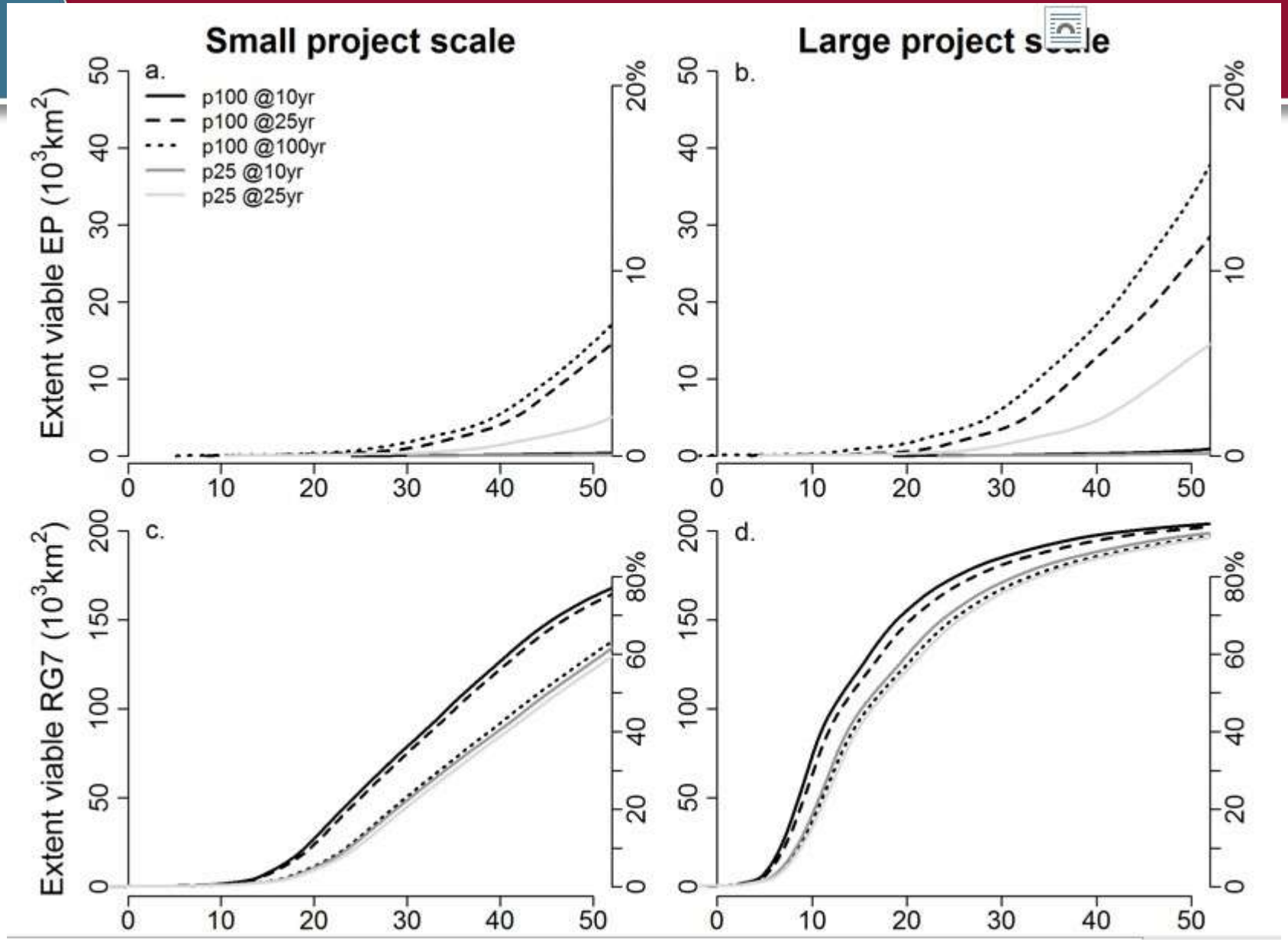
SW QLD is well suited to low cost abatement

But several other areas are also good prospects if scale can be achieved or overcome

Butler, D.W. and Halford, J.J. 2015 *Opportunities for greenhouse benefits from land use change in Queensland.* Department of Science, Information Technology and Innovation, Brisbane

Planting

Regrowth



Transaction costs drive need for large project scale for profit at low prices

Butler, D.W. and Halford, J.J. 2015 *Opportunities for greenhouse benefits from land use change in Queensland.* Department of Science, Information Technology and Innovation, Brisbane