Regional scale spatial strategies to cope with temporal variability in the rangelands of northern Australia

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Talk Overview

- Land tenure and property rights
- Coping with temporal variability in forage supply
- Strategies to spread climatic risk
  - Agistment
  - Multiple land holdings
- Implications for property rights
Rangelands and land tenure

National Land and Water Resources Audit, 1999 Land Tenure

Indigenous pastoral lease

Pastoral leasehold

Freehold

Unassigned

Indigenous

Conservation reserve (4.3%)
State owned crown land with assigned uses (1.1%)
State owned crown land with unassigned uses (14.5%)
Defence Reserve (2.3%)
Forested areas (State Forest, forest reserve) (0.5%)
Freehold land (non-indigenous) (9.4%)
Pastoral lease (non-indigenous) (48.1%)
Indigenous pastoral lease (2.0%)
Indigenous land (15.0%)
Marine reserve (0.006%)
National park (2.8%)
Not included in rangelands project (21.8%)
Other reserves - hunting, historical, heritage (0.04%)
Water reserves (0.07%)

This is the most current dataset available (1999). The area of Aboriginal controlled land has increased since this information was compiled.
Land tenure and property rights

• Traditionally very good security of property rights with both freehold and leasehold land

• Transition from an era of encouraging development to managing the environment
  • lease agreements
  • constraints on use e.g. tree clearing

• Perceptions of encroachment on property rights
TERM LEASES:

Delbessie agreement a landmark move

SOUND environmental practices and sustainable productive management are said to have paid off for North Queensland graziers, the Marsterson family, who this week became the first Queensland lessees to sign a Delbessie lease agreement.

AgForce president John Cotter said in a statement the signing, which took place in Brisbane on October 8, was a landmark moment which recognised the value of lessees as land managers.

The Delbessie agreement provides practical policies and guidelines for the sustainable use, protection and rehabilitation of rural leasehold land, and in return longer leases are granted by the government.

"The agreement highlights the importance of lessees as being paramount to management of the leases and provides opportunities to enhance security for passing down to future generations," Mr Cotter said.

"The development of this framework for term leases in Queensland also recognises sustainable production being a principle of each lease and the value that the lease estate contributes to the environment, indigenous and cultural values."

The Marstersons - who are AgForce members - have operated Craig's Pocket, a 22,000-hectare cattle grazing property 200km north-west of Townsville, for the past 16 years.

As part of the lease renewal process, Craig's Pocket underwent a rigorous science-based land condition assessment which established that the land was in good condition based on pasture, soil and biodiversity attributes - and in return, the Marstersons were granted a 40-year lease term instead of the standard 30-year term.

"The signing of the Craig's Pocket lease by the Marstersons demonstrates the attributes that term leases in Queensland represent: secure tenure, excellent management and the most sophisticated land condition assessment system applied across the wildest area in the world today," Mr Cotter said.

Craig's Pocket is also the first Queensland property to have a land management agreement, an integral part of the Delbessie agreement, which is negotiated with the lessee and government, and provides sustainable land management practices based on individual features.

The Delbessie agreement covers about 86.7 million hectares, or half of Queensland.
Spencer ends the strike

Peter Spencer yesterday ended a widely-publicised 52-day hunger strike on his Monaro property to highlight the impact on farmers of government land-clearing bans.

By LUCY KNIGHT

THE snowballing support of thousands of farmers and property owners across Australia for Monaro farmer Peter Spencer, was behind his decision to end his hunger strike of more than 50 days yesterday morning.

Mr Spencer’s doctors advised him on Tuesday he risked irreparable damage to his body if he continued the strike, and buoyed by the fact many farmers have vowed to join him in his fight for property rights recognition, he agreed to end his 52-day strike and go to hospital.

Mr Spencer, 61, broke down on national radio when he announced his decision to climb down from the 10-metre tower on his 5385-hectare property near Cooma where he has been since mid-November.

His spokesman, Alastair McRobert, admitted Mr Spencer felt relief with his decision, yet was still displaying incredible determination and coherence.

Mr Spencer is now expected to spend some days in hospital recovering from the strike and being weaned back onto solid foods.

He ate his last meal - jam, cream, and scones - on November 22. But Mr McRobert said it would be business as usual for Mr Spencer once his health recovered, starting with another property rights rally in Canberra when Parliament resumes on February 5.

“Life will go on for Peter,” Mr McRobert said.

“He will go on fighting this battle, and because of this protest he now knows he won’t be alone.

“He has thousands of supporters willing to help fight the government for proper compensation of lost property rights.

“It was part of the reason he felt he could end his strike. He knows he’s not alone.”

In a media statement Mr Spencer said he would be relentless in his pursuit for fair compensation by the Federal Government.

“My concerns are directed at the families of the hundreds of farmers who have succumbed and the politicians who have failed to show any concern, compassion or morality for what the government has done to these families and the nation’s Constitution.

“My committed stance on the tower was to press the point,” Mr Spencer said.

Media reports earlier this week had questioned the motives behind Mr Spencer’s strike, suggesting personal and family debts had triggered his call for compensation.

It’s believed he is indebted to family members to the tune of $1 million or more, and there were suggestions authorities could serve Mr Spencer with a possession order.

Mr Spencer’s brother, Graham, told journalists during the week his brother’s issues were only loosely connected to land clearing and said his farm was on marginal land anyway.

Mr McRobert said it had never been a secret Mr Spencer had been offered $2 million compensation by the NSW Government over land clearing, which was rejected.

He said there was still every chance Mr Spencer’s farm could be repossessed, but that had been an imminent possibility for the past 10 weeks.

Mr Spencer has been arguing in the courts that farmers should be compensated by the Federal Government for the loss of property rights, because the Government obtained benefits by claiming carbon credits over farmland locked up by land clearing bans.
Fragmentation in Australia’s rangelands

Drivers of Fragmentation
- Land Policy
- Rural Population Growth
- ‘Equitable’ Land Allocation Development
- Unrealistic Expectations
- High Commodity Prices
- Favourable Weather
- Over-confidence in Technology

Drivers of Aggregation
- Enterprise Viability
- Enterprise Expansion
- Economies of Scale
- Family Size
- Complementarities

Viability Threshold (Dynamic)
- Cost-Price Squeeze
- Family Size
- Land Prices
- Degradation
- Subsidies
- Efficiency
- Infrastructure
- Diversification

Progression in Pastoral Development

Scale of Land Use
Temporal variability in Australian rangelands

![Graph showing annual CV of rainfall (%) against mean annual rainfall (mm) for different continents.](image)
Coping with temporal variability

- Conservative stocking regimes
- Sale of animals
- Drought feeding

Within a property

- Agistment
- Multiple properties to spread climate risk

Across properties
Agistment

• Agistment is the commercial practice of temporarily moving livestock between enterprises.

• This often involves shifting animals some distance (100-1000 km) to an area which is not so affected by the dry conditions.

• Agistment agreements involve two parties: the agistor, who owns the livestock and pays a land owner to temporarily take livestock; and the agistee, who owns the land.

• As a market, activity is limited by inequalities in information and relies on trust (quality of the resource, due care of livestock etc).
(1) Reason for seeking agistment land?

- Drought mitigation (69%)
- Strategic stock building to stock future planned land purchases (31%)

Reeson et al 2008 The agistment market in the Australian Rangelands: failings and opportunities. Rangeland Journal 30(3)
(2) Reason for offering agistment land?

- Strategic land acquisition with future cattle purchases to follow (31%)
- Taking advantage of unexpected or patchy rainfall (23%)
- Strategic designation of land to generate agistment fee cash-flows (15%)

Reeson et al 2008 *The agistment market in the Australian Rangelands: failings and opportunities*. *Rangeland Journal* 30(3)
(3) Distances involved

- On average agisted stock travelled along 375km of road or 270km in a straight line.
- The greatest distance travelled was 1,200 km.

Reeson et al 2008 *The agistment market in the Australian Rangelands: failings and opportunities*. Rangeland Journal 30(3)
(4) Agreements

- Pastoralists relied predominantly on hand-shake or verbal agreements (46%)
- Few relied on legally binding documents (8%)

Reeson et al 2008 *The agistment market in the Australian Rangelands: failings and opportunities*. Rangeland Journal 30(3)
Issues with agistment

• Individuals tend to operate agistment agreements in a fairly informal manner

• Misunderstandings about forage availability, which party is responsible for checking water availability are common

• Some agreements even begin with no discussion about the fee levels

• There is no common market place where potential agistees and agistors can trade

• Deals are sought through a range of mechanisms – through friendship and kinship networks livestock and land agents, and through other means such as advertising in classifieds and “cold-calling.”
Multiple property holdings

• family owned operations
  ➢ multiple properties for financial and/or family succession reasons

• corporate operations

- 7.2 Million ha
- 500,000 cattle
- 21 properties
Multiple properties to exploit spatial variability

- Historically using spatial variability to manage temporal variability was a key strategy.

- Only in relatively recent times that the concept of exploiting spatial variability has been explicitly included in planning but not in an analytical way.
Analytical approach to maximising spatial variability

Identify synergies

- Greater differences in patterns of production offset risks of climate variation (‘diversified stocks’)
- Minimize CV% for property network

Correlation of 30 yrs NDVI from target property
Case study comparison

Poor Diversification
High risk – “all your eggs in one basket”
Droughts hit all properties in the same years
Exaggerates bad years for overall business

Good Diversification
Reduced risk – “broad stock portfolio”
Droughts hit properties in different years
Smoothes income stream of overall business
HTML tool to explore beneficial ‘offsetting’ patterns of forage production between rangeland regions.
Summary

• Non-freehold pastoral property rights becoming more controlled to better manage natural resource base

• Better strategies needed to manage temporal variability in forage supply for NRM and profitability
  • Within property
  • Beyond property

• Opportunity to much better use spatial variability to manage temporal variability in a market and tenure environment with considerable flexibility