



Water Markets in Integrated Water Resources Management

Water Markets. Financial Solutions for Emerging Countries

**Water Markets and their Environmental, Social and Economic
Impacts in Australia**

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Concerns about market impact

- Mainly entitlement trading
- Mainly trading out of regions
- Mainly rural to urban transfers
- Social/Community impacts
- Environmental impacts

Concern of remaining irrigators:

- Increasing cost;
- Supply uncertainty;
- Abandoned farms; and
- Speculation

Policy options:

- Barriers to trade
- Exit fees
- Unbundling: supply capacity share
- Compensation when channels are closed
- Limit on ownership

Concern of irrigation communities

Concerns:

- Loss of jobs and reduced land value
- Depopulation and de-servicing
- Changing populations

Policy options:

- Barriers to trade
- Adjustment assistance

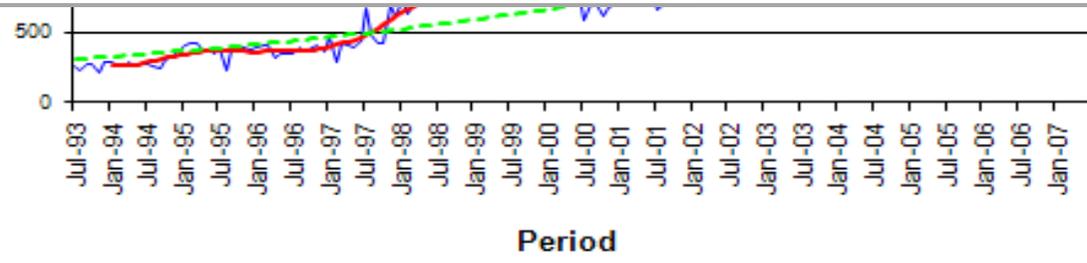
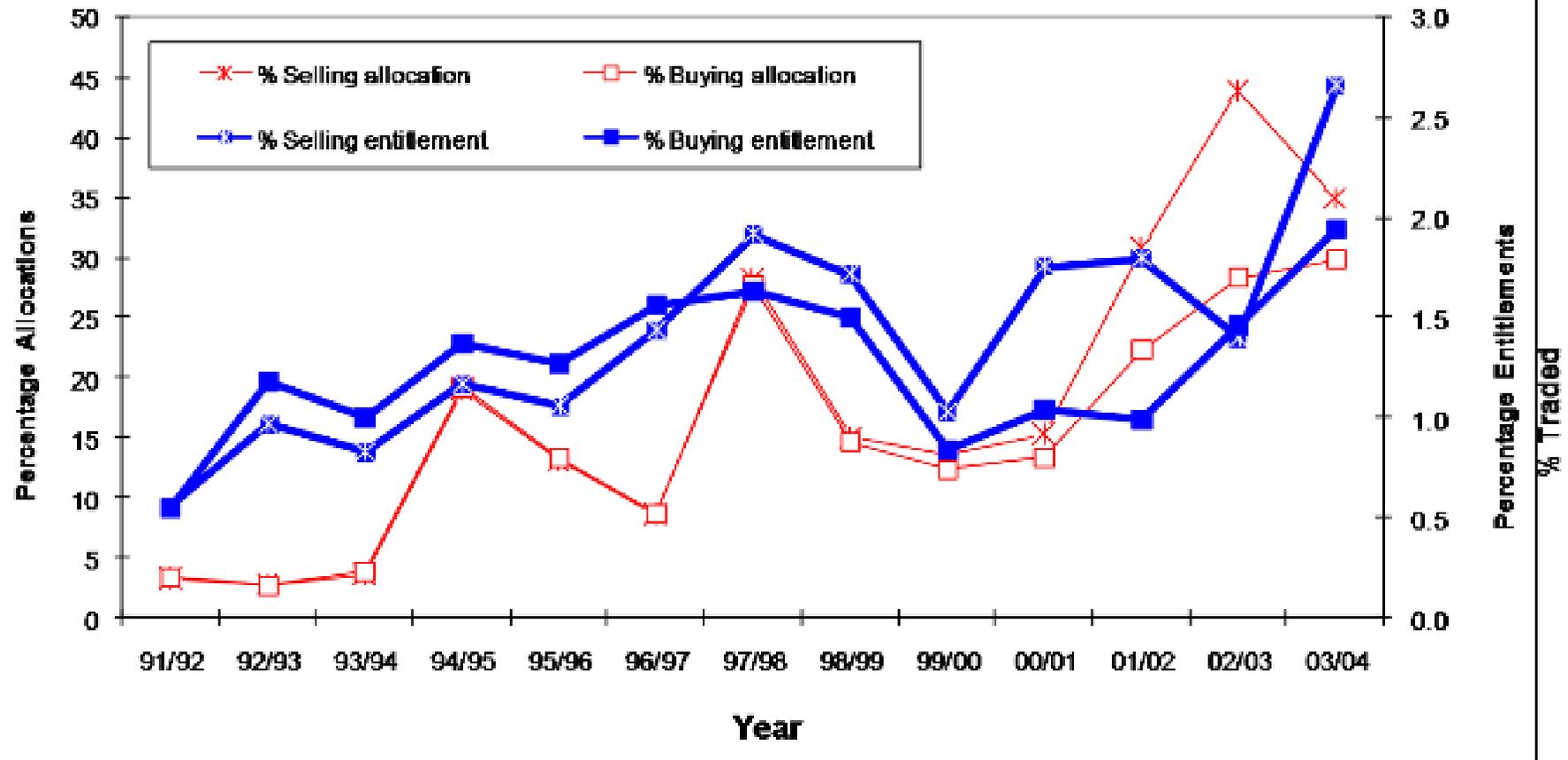
Environmental concern

- Concentration of water use
- Trade of water upstream
- Activation of unused water
- Trade of water into high impact areas
- Impact on river water quality

Policy options:

- Cap on water use and spatial restrictions
- Irrigation Drainage and Management plans
- Identification of high and low impact areas
- Limits on total water use per/ha depending on irrigation and drainage infrastructure
- Exchange rates
- Government buy back
- Unbundling: Use right

Figure 1: % of farm businesses buying and selling allocations and entitlements annually



Jun	0.997
Jul	0.978
Aug	0.951
Sep	0.982
Oct	0.989
Nov	1.016
Dec	1.013

2007/08 0 57 0 45

Economic impacts

- Reallocation takes place both in allocation and entitlement markets
- Allocation trading biggest impact
- Reduce losses v. maximize profits
- Allow irrigators to manage risk and scarcity
- Facilitated new green field development

Social impacts

Community members report changes:

- Many farms sold - Changing population
- Reduction in businesses and services
- Reduced school enrolment and choices
- Reduced social and sporting activities
- Decline in volunteers for schools etc.
- However – What is cause and effect?
- Has markets made it better or worse?

Environmental impacts

- Movement to better soil in better locations
- Better irrigation and drainage – Is that good?
- Government buy water for the environment
- Are water plans implemented - do they work?
- Are obligations to remedy enforceable?
- Are bonds paid sufficient to remedy?
- Too early to tell!

Concluding remarks

- Is it time for more sophisticated market products and instruments in Australia?
- The fundamentals seems to be there
- Environmental and other public benefits are protected
- Market can therefore reallocate water available for consumptive use