Engaging Farmers in Water Stewardship

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Alliance for Water Stewardship

Water Stewardship Australia
Industry perceptions and behaviour

https://www.youtube.com/watch?feature=player_embedded&v=4-uSLoBs-O0
Attitudes to environment

- Strong status quo preference
- Risk concerns: government, long-term contracts, market change
- Otherwise rational decision but with risk premium
- Grazing code of practice

Greiner 2014

N = 104
Area = 250k
U.K. = 244k
2009 Cotton industry field trial

• Evaluate water stewardship as a driver for uptake of industry best management practices

• Observations:
  – Surprise being asked to look beyond the gate
  – Need integration with catchment manager
  – Need opportunities for small and large growers
  – Need stronger ‘what’s in it for me’ message
2012 Dairy Industry Field Trial

- Industry self-assessment tool
- Low uptake (in need of revision)
- Compliance burnout
- Lifestyle, independence
- Small businesses, hands-on owners
- Farmer wears compliance cost
- Someone else gains the benefit

Conclusions:
- Need to minimise transaction costs
- Low compliance burden
- Integrate with existing system
- Clear reward for participation
Customer sustainability goals

- Continuous improvement
- Agrochemicals and fuels
- Soils
- Water
- Biodiversity
- Waste
- Energy and Greenhouse gases
- Social and human capital
- Value chain and local economy
- Animal welfare
- Training
Customer Sustainability Requirements

Water Stewardship Standard

Catchment Plan (s)
Industry BMPs

Water Balance ✔
Quality ✔
IWRAs ✔
Governance ✔

Multi-stakeholder
Credible
Achievable
ISEAL Compliant

Fits water stewardship framework

Accredited compliance with WSS standard

Milk Factory

Extension Services

Farmer A
Farmer B
Farmer C
Farmer
Farmer E

WATER
Customer Sustainability Requirements

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Group Manager for
milk suppliers

Common practices
across group

Milk Factory

Farm Management Plans

Fits water stewardship
framework

Monitoring for
compliance on a group
basis

Extension Services

Farmer A
Farmer B
Farmer C
Farmer D
Farmer E

WATER
Step-wise approach to uptake

Public Policy Convening Role

Information → Training → Self-assessment → Verification → Certification

Risk push

Reward pull
Summary/Conclusions

• Common pool resource rules apply
• Negotiation between stakeholders
• Social-Ecological System context
• Minimise transaction costs
• Risks - Rewards
• Supply chain leaders are powerful
• Convening role of public policy
Today’s presentation

- Game Theory
- Stewardship
- Behavioural Economics
- Case studies
- Resilience Theory

ALLIANCE FOR WATER STEWARDSHIP
Resilience theory - SES

[Diagram showing the interactions between the Human System, the Ecosystem, and the Social-Ecological System through Actions, Interventions, and Ecosystem Services.]
Agriculture and water

52% of water extracted from the environment for agriculture
Managing common pool resources

“Each man is locked into a system that compels him to increase his herd without limit – in a world that is limited.” (Hardin 1968)

“Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons” (Hardin 1968)

“... the tragic necessity of Leviathan (Hardin 1973)

“end common property rights” ... privatisation (Smith 1981)

8 design principles for common pool resources (Ostrom 1990)