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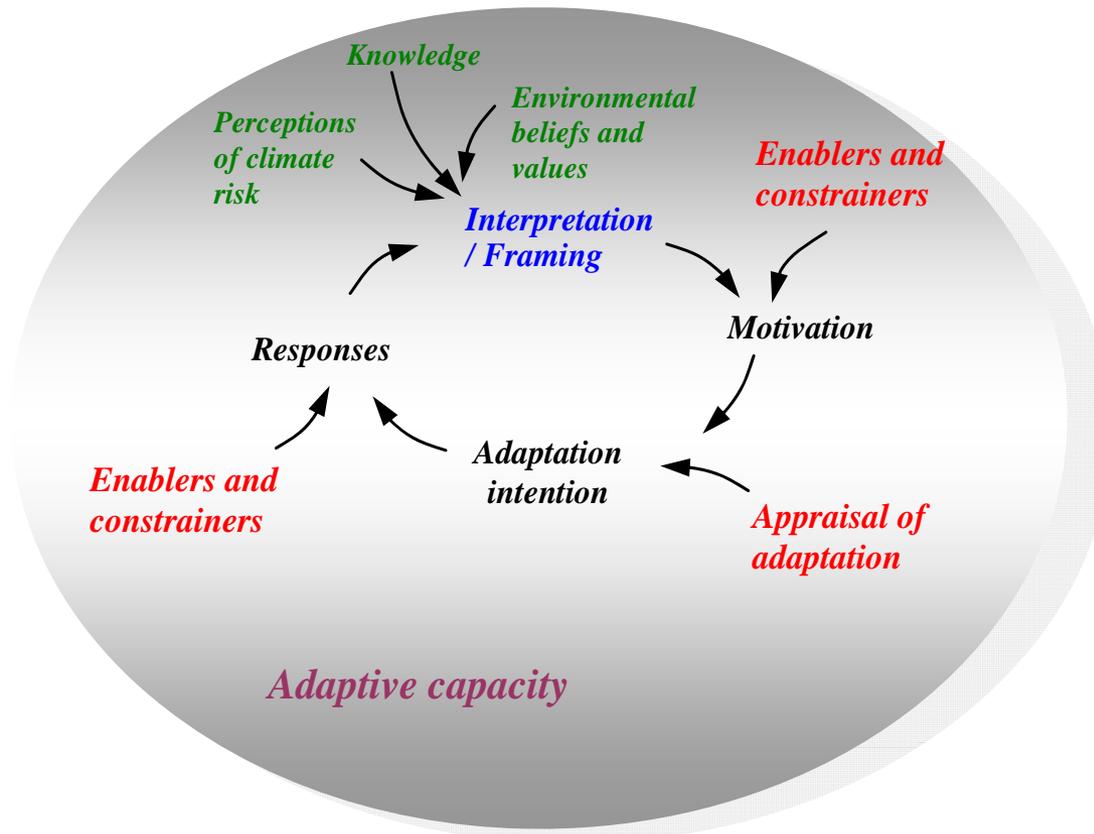
# Policy issues arising from decision making among farmers in relation to CC

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# Acknowledgements

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# Conceptualising adaptation



Preliminary qualitative work as reported by Milne et al. 2008

## The data

- Bureau of Rural Sciences' Climate Risk and Adaptation dataset
- N=4000
- Collected 2008
- Preliminary papers in Kenny Report

# Research Questions and Methods

## Step 1:

- Which factors pertain to farmers' decisions about whether and, if so, how to adapt to climate change challenges?
- Which of these factors are the most and least important?

## Step 2:

- Are there different types of farmers and if so, do they differ with respect to factors that related to their climate change adaptation behaviour?

## Methods Step 1:

- Exploratory factor analysis
- One factor congeneric modelling
- Hierarchical linear regression

## Methods Step 2:

- Two step cluster analysis

## Survey contents

- On property conditions (commodity prices, water, soil, pests, debt etc)
- Risk management
- Adaptive intention
- Belief in climate change (GHGEs, responsibility, viability)
- Social (cohesion, participation, trust, engagement)
- Use of government services
- Hope for future services
- Information usage
- Demographics



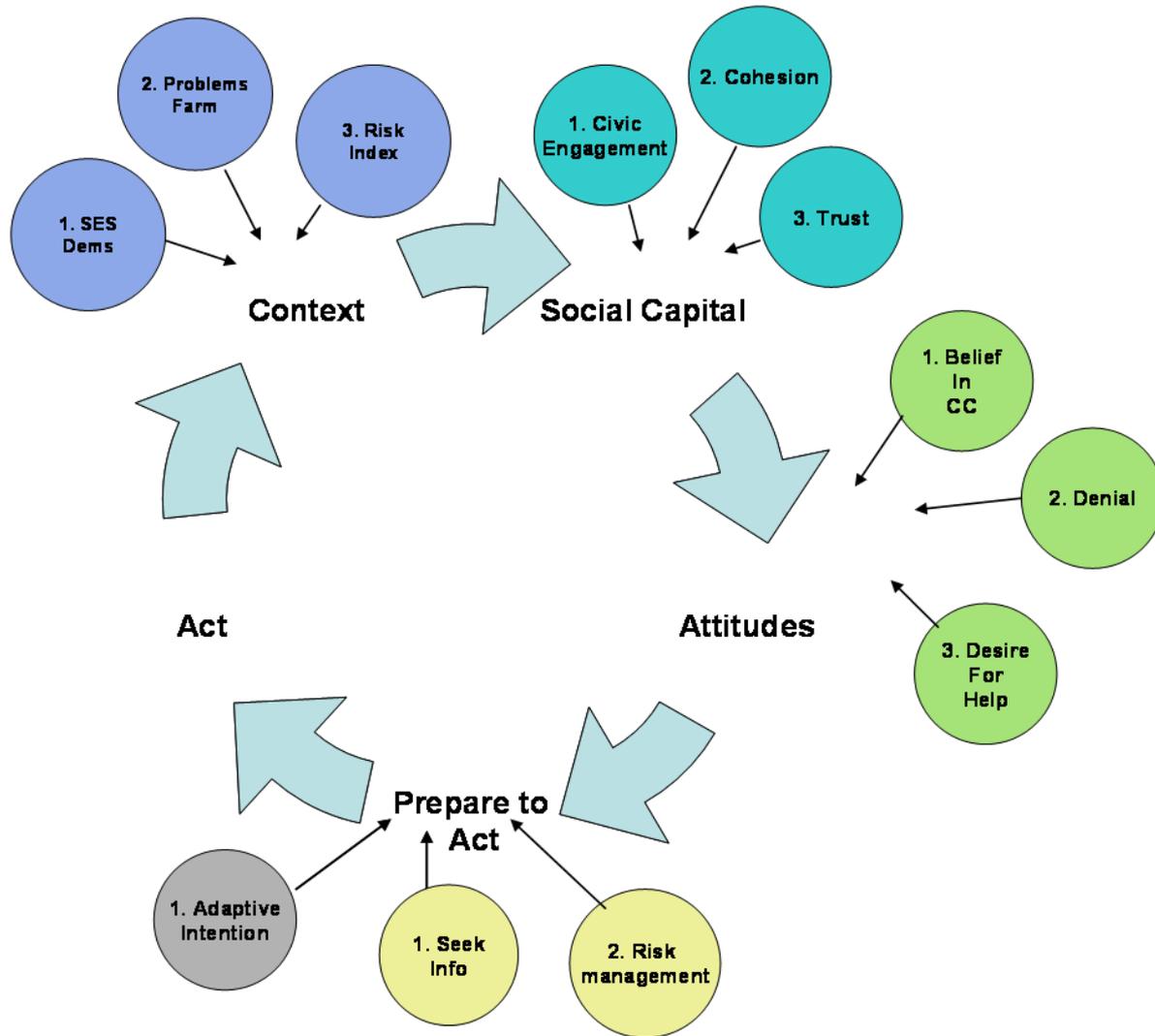
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Which factors pertain to farmers' decisions about whether and, if so, how to adapt to climate change challenges?

Which of these factors are the most and least important?

# Risk management Vs desire to adapt

- Risk management
  - Various management plans
  - Diversity/withdraw
  - Off farm income
- The desire to adapt
  - More sustainable practices
  - Reduce emissions
  - Produce alternate energy



## Key drivers of desire to adapt

- Instigating risk management practices (plan, diversity etc)
- Sense of moral responsibility to reduce GHGEs
- Desire for practical help to become more sustainable

## Supporting factors

- Being slightly younger than average age
- Slightly above average education
- Facing viability pressures
- Having volunteered last 12 months
- Use of various info sources
- Slightly less involved with NGOs/extension programs
- Acceptance that weather patterns have/are changing



# Are there different types of farmers?

If so, do they differ with respect to factors that related to their climate change adaptation behaviour?

1. Belief in climate change
2. Desire for advice and assistance
3. Social connectedness
4. Information seeking
5. Adverse farm conditions

### **Disbelievers.**

Well connected disbelievers with good farm conditions, stronger focus on lifestyle

**26.0%**

### **Believers**

Well connected, business focused, believers of CC drought-affected, poor conditions seeking information and assistance

**54.5%**

### **Skeptics**

Skeptical about CC, business focused drought-affected, poor conditions poorly connected and disengaged

**19.4%**

Disbelievers

Believers

Skeptics

Belief in climate change

**Low**

**High**

**Average**

Desire for advice and assistance

very **Low**

very **High**

**High**

Social connectedness

**High**

**High**

very **Low**

Information seeking

**Low**

**High**

very **Low**

Adverse farm conditions

very **Low**

**High**

very **High**

In drought?

**55%**

**83%**

**82%**

Disbelievers

Believers

Skeptics

% / Mean

% / Mean

% / Mean

*sig.*

Age

*p* < .001

<55

28

50

52

55-64

33

31

27

>64

39

19

21

Female

13

15

17

*ns.*

Total hectares

1639

5137

2746

*ns.*

Years education past  
year 10

2.45

2.34

2.27

*ns.*

Risk management

2.35

3.15

2.63

2>3>1

Intention to adapt  
practices

2.55

3.19

2.77

2>3>1

Lifestyle focus

2.43

2.01

2.15

2<3<1

Intention to produce  
green power

1.97

2.33

2.16

2>3>1

# Policy implications

- Messages about managing risk are working
  - But risk management is different to sustainable practices
  - Focus messages on reducing GHGEs not CC
- Belief in CC not a key issue
  - Focus attention on changing weather patterns not CC
- Facilitate transitions to sustainability
- Keep pushing out info

# Policy implications

- Support younger farmers
  - On the right track but doing it tough
- Maintain the tension in the level of \$ help offered
  - Support future investment vs welfare
- Farming as a lifestyle is a potential barrier to adaptation
- 25-35% of farmers interested in producing sustainable energy

# Questions

- Can adaptation be further enhanced thru extension officers/NGOs?
- Are lifestylers a problem to sustainable land management?
- A role for primary industry in energy production?