STAKEHOLDER PERSPECTIVES REGARDING THE RESOURCE MANAGEMENT ACT: DELPHI TECHNIQUE

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THE NEED FOR STRONG POLICIES AND CONSERVATION ACTION
Vital to Natural Resource Management

Science – a ‘social activity’ (McCoy, Pickett, Robertson et al.,)

Multiple evidence and reasoning from multiple specialists and stakeholders

Societal pressures influences
- Group think
- Halo effect
- Ego-centrism
- Dominance

Lacks streamlining
DELPHI TECHNIQUE- OBJECTIVES

- Rapid assessment of expert opinions
- Expert consensus
- Effective solving of complexities
- Ensures anonymity
- Time and resource saving
- Facilitates fair sharing of opinions
GLOBAL APPLICATIONS OF THE DELPHI TECHNIQUE

- Forest management
- National parks management
- Wildlife conservation and management
- Use of watershed
- Ecological models
- Restoring aquatic and riparian resources
- Marine protected area
- Protection of focal species (91%)
- Quantifying impacts of climate change (study on polar bears)
- Conservation landscape for Giant pandas
APPLICATIONS OF THE DELPHI TECHNIQUE

- 3 rounds surveying
- Ideal number of members: 8-10
- Clear objectives
- Aids decision making
- Identifies indicators
- Provide novel solutions
- Advances our understanding

Delphi studies in environment and conservation management
METHODOLOGY

Identification of individuals

Nominate experts

Categorize according to skill/discipline

Brainstorming (expert individuals)

Narrowing down (list from panels)

Ranking of consensus (Ranking of factors on list)
METHODOLOGY

1. Prepare the first round of the questionnaire
   - Define clear objectives
   - Use a pilot round with independent experts
   - Check facilitator skills
   - Set consensus threshold

2. Select and invite respondents
   - Define selection criteria
   - Choose respondents who have a direct interest in the topic/issue and an outgroup

3. Collect and analyse the responses

4. Provide feedback to the participants
   - Allow dissenting individuals to explain their views
   - Use content analysis or coding techniques for qualitative responses
   - Provide statistical summaries for quantitative responses

5. Prepare, distribute and analyse the subsequent round of questionnaire
   - Limit time lapsed between rounds and number of rounds

6. Iterate till consensus is reached
Robustness of the RMA
International applicability

RESEARCH QUESTIONS:

- What are stakeholder perspectives on policies relating to water and biodiversity under the RMA?
- Does the RMA incorporate indigenous collaboration within its framework? If so, how?
- How are natural resources managed internationally? Can New Zealand’s RMA be applied to scenarios in other countries?
RESOURCE MANAGEMENT ACT

- Primary legislation
- Develop, protect and enhance natural resources
- Established in 1991
- Consolidation of statutes
- Effects-based land management
- Treaty of Waitangi
RESULTS FROM PILOT STUDY

Key
1. Applying for a resource consent
2. Assistance and support from staff
3. Access to forms and instructions
4. Clarity of forms and support information
5. Processing time
6. Overall experience
Emerged themes from comments regarding RMA (Rd 1,2&3: n=36)
DELPHI TECHNIQUE: IDENTIFICATION OF STAKEHOLDERS

1. Nomination of experts and panels
2. Survey of experts and panels
LIMITATIONS DELPHI TECHNIQUE:

- Lack of defined guidelines
- Lack of direct interaction or feedback during analysis
- Lack of understanding issues and perspectives
- Not sure if expert opinions are based off of previously established quantitative data
REFERENCES


THANK YOU
# Property Size Across Areas

<table>
<thead>
<tr>
<th>Property Size</th>
<th>RD1 &amp; 3 (n=53)</th>
<th></th>
<th>RD2 (n=40)</th>
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<td>Less than 5ha</td>
<td>41</td>
<td>77</td>
<td>14</td>
<td>35</td>
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<tr>
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<td>11-50</td>
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<td>2</td>
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<td>5</td>
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<tr>
<td>101-200ha</td>
<td>1</td>
<td>2</td>
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<tr>
<td>&gt;200 ha</td>
<td>1</td>
<td>2</td>
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<tr>
<td>Total</td>
<td>53</td>
<td>100</td>
<td>40</td>
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## 1. ACTIVITIES CONDUCTED ON PROPERTIES

### RD2\((n=34)\)

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<th>Activity</th>
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<td>Horse</td>
<td>29%</td>
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<tr>
<td>Sheep</td>
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<tr>
<td>Poultry</td>
<td>24%</td>
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<tr>
<td>Beef</td>
<td>3%</td>
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<tr>
<td>Pigs</td>
<td>12%</td>
</tr>
<tr>
<td>Cropping</td>
<td>3%</td>
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<tr>
<td>Mixed arable</td>
<td>3%</td>
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<tr>
<td>Native vegetation</td>
<td>15%</td>
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<tr>
<td>Other</td>
<td>29%</td>
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### RD1&3\((n=49)\)

<table>
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<th>Percentage</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>Sheep</td>
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<td>33%</td>
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<td>Pigs</td>
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<tr>
<td>Mixed arable</td>
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<tr>
<td>Native vegetation</td>
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</tr>
<tr>
<td>Other</td>
<td>18%</td>
</tr>
</tbody>
</table>
SUMMARY OF RESULTS

• Majority of trend- Landholdings less than 5ha or 5-10ha
• Lifestyle or country-side living
• Recreational/ lifestyle activities
• Dissatisfaction with RMA- expense, bureaucracy and time
• Resources on property have ‘stayed the same’

FUTURE DIRECTION:

• Widen range of study area
• Survey questionnaire to Federated Farmers