Integrated Catchment Management

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What is “integrated catchment management”?

Integrated Catchment Management is a process that recognises the catchment as the appropriate organising unit for understanding and managing ecosystem processes in a context that includes social, economic and political considerations, and guides communities towards an agreed vision of sustainable natural resource management in their catchment.
Integrated catchment management

Aim: Integrating biophysical, ecological and social research for catchment-scale management of water resources.
Integrated catchment management

*Outcome:* Improved management of, and social learning about, land, freshwater, and near-coastal environments in catchments with multiple, interacting, and potentially conflicting land uses.
2200 km²; complex geology; and strong rainfall gradient.
Indigenous forest in high-rainfall upper catchment. Used for biodiversity conservation, tourism, recreation.
Plantation forests on Moutere gravel hill country, mid-upper catchment
Sheep and beef farming on extensive areas in mid-catchment
Intensive horticulture at lower end of catchment
Essentially “pristine”

Desire to keep it pristine despite pressures
Social learning and community participation

Community reference group and community engagement

Iwi partnership

Social learning

Learning that occurs only when people engage one another, sharing diverse perspectives and experiences to develop a common framework of understanding and basis for joint action.
Influence matrix to help define research agenda and understand catchment interactions

<table>
<thead>
<tr>
<th>Ecological Factors</th>
<th>Economic Factors</th>
<th>Social Factors</th>
<th>Other Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Climate &amp; atmosphere" /></td>
<td><img src="image2" alt="Primary industry" /></td>
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## Influence Matrix

<table>
<thead>
<tr>
<th>Groups</th>
<th>Factors</th>
<th>Forestry</th>
<th>Farming</th>
<th>Sediment</th>
<th>Nitrate</th>
<th>Profit</th>
<th>Cashflow</th>
<th>Qual of life</th>
<th>Com health</th>
<th>Col sums</th>
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</table>

Scoring: 0 = none  1 = trace  2 = weak  3 = modest  4 = strong  5 = substantial  6 = dominant

The effect of these factors on…

How these factors affect other factors.

How these factors are affected by other factors.
• Community participation in research agenda setting

• How are science results used by resource managers?
Social learning in ICM

- Community participation in research agenda setting
- How are science results used by resource managers?
  - Designing appropriate disseminations tool
t    (translations)
  - CD-ROM tool
Social learning in ICM

- Community participation in research agenda setting
- How are science results used by resource managers?
- Developing tools for stakeholder involvement
  - Models for working with iwi
  - Team evaluation guide
  - Stakeholder analysis
Motueka Conservation Order

- Successful negotiation between parties

- Protecting values
  - Irrigation development

- Flows
- Trout habitat
- Irrigation demand

- Community Expectations

- Research knowledge

- Government Policy

- Workable management regime

ICM
Learning that occurs only when people engage one another, sharing diverse perspectives and experiences to develop a common framework of understanding and basis for joint action.