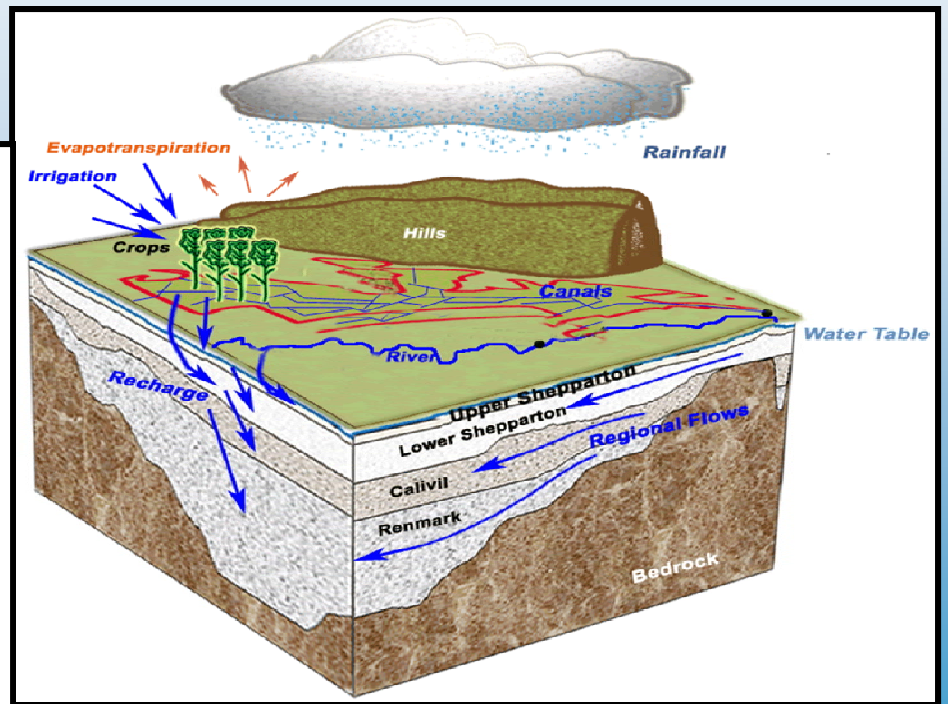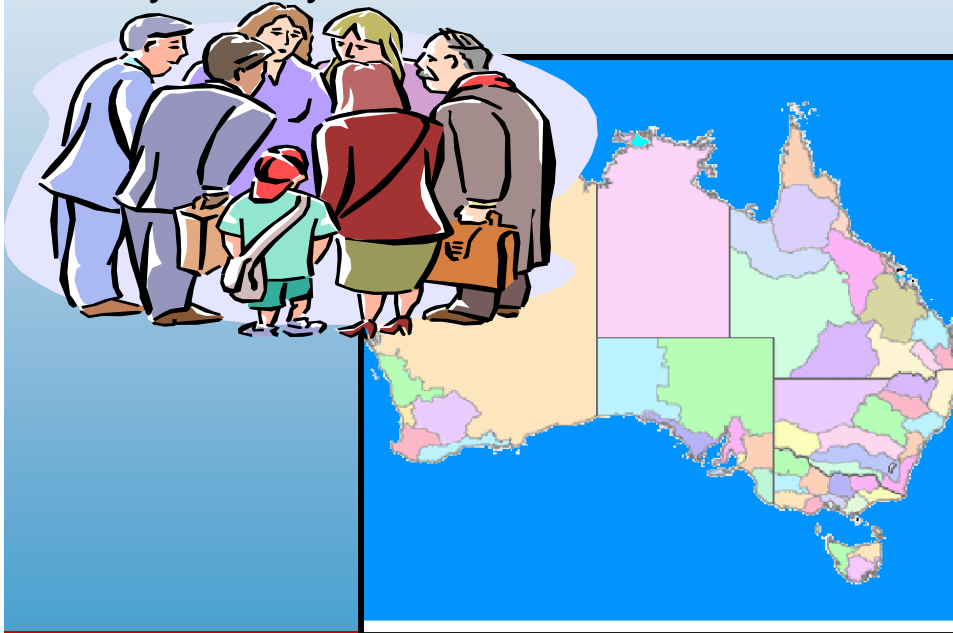# A researcher perspective – defining a new policy and science relationship

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Policy development and scientific research

- A variably helpful relationship characterised by occasional bursts of enthusiasm interspersed with periods of frustration and variable levels of trust

- Policy developers – not sure how to get what they need in a timely manner (is it new knowledge, investigation, expert commentary, demonstration?)

- Researchers – believe that they can and should contribute but the engagement is spasmodic and mostly quite frustrating.

- Is there a better way?

Exploring a better relationship

- Mutual benefit in scientific research and policy development
- Similarities of policy development and research environments
- Tensions over values and organisational cultures
- Incompatibility of time frames
- Scientific research in a political world of changing expectations
- Mode I to mode III science
- Moving to an improved relationship

Mutual benefit in scientific research and policy development

- Build with the assumption of mutual benefit
  - Researcher perspective:
    - o Engagement with the policy development process can increase the influence of my research [influence]
    - o There is a greater chance of influencing future research funding [$]
  - Policy developer perspective:
    - o The basis for this policy is likely to be more defendable if there is scientific credibility involved [risk minimisation]
    - o There is potential political credibility in having "experts", especially "independent experts" involved (provided they support the policy proposal!) [credibility]

Similarities of policy and research environments

- Both policy developers and researchers are "agents of change"
  - Research is only successful when someone changes they way they think about or the way they manage a part of "their world"
- Both policy development and research are carried out in intensely political environments
  - The politics of research is as brutal and insensitive as is mainstream governance politics
    - o Competition is fierce for resources and ideas
    - o Personalities and biases are often the main decision determinants – logic and reason are often subsumed
    - o Maintenance of the research group, "the entity" is as important as the output of the research

Tensions over values and cultures

- Researcher perspective:
  - Ideas, especially new ideas, are the valued "currency" - often fiercely guarded
  - Recognition, especially by peers, is the prized status symbol
  - Belief in the "rightness" of the scientific method is often strong
  - Remuneration is important but not paramount
  - The argument and logic are often more valued than the solution
- Policy developer perspectives:
  - Political acceptance and "championing" of policy intent and legislation is prized
  - Status comes with "size and success" of the department
  - Compromise and pragmatism are the tools of trade
  - Ministerially comfortable solutions are the ideal

Tensions over values and cultures

- Researcher perspective:
  - Surely logic, rationale and evidence should be the only way for policy formulation!
  - Surely intentions and actions encouraged/discouraged with policy should be informed by recognition of the long term effects!

- Policy developer perspectives:
  - Electorate emotion, economic values and political value can be more important than dispassionate logic
  - Short term expediency (being seen to do something, anything!) is sometimes more important than long term considerations
  - Maintenance of control and minimisation of risk (no ministerial embarrassment !) are part of the decision setting

Incompatibility of time frames

- Researcher perspective:
  - Competent researchers are rarely waiting for the next project
  - Research hastily conceived and hastily done is rarely sound and certainly not personally satisfying
  - Writing research papers is critical and time consuming

- Policy developer perspective:
  - Input into the shaping the policy options is always time constrained
  - Researchers rarely deliver in a timely manner and always with caveats
  - Material used to support the policy/legislation is of secondary importance

Scientific research in a political world of changing expectations

- Support for acquiring knowledge as a societal good is extremely limited – unfortunately!

- Scientific research and the institutions involved now have a much more utilitarian purpose – teach and research for commercial gain!

- Governments like to
  - be associated with scientific "breakthroughs" ,
  - exercise influence and control to promote that which supports their position and downplay that which is inconvenient,
  - minimise expenditure on activity that is not staring electors in the face every day (thank goodness for public servants and lobbyists!)

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Scientific research in a political world of changing expectations

Publically funded scientific research is now subject to very different political expectation relative to several decades ago

Modes of science:

- Mode I science is characterised by

    - Subject specialisation and reductionism

    - Attempts to produce generalised laws often in "ideal" conditions

    - Research endeavours that fail

    - Open publication

    - Single authored publication

"Just put the cheque under the door and I'll tell you when I've got the answer"

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Scientific research in a political world of changing expectations

Modes of science:

- Mode I I – "science in the context of its application"

- Characterised by:

  - A holistic approach

  - Mission-oriented and applied

  - Results are context specific

  - Failure is not an option

  - Team based, publications multi-authored

Source: Waters 2006

This is the form of science that is much more in tune with the multi-faceted "systems" problems we face today

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Modes of science

Harris (2007) argues that we need Mode I I I science:

"science that is done in the context of its application *but which also influences the context and application through engagement in a contextual and recursive debate*"

"Mode III science is trans-disciplinary and deeply recursive and is an explicit acknowledgement *that reason is not a sufficient guide to our actions*"

To achieve this aspirational goal requires "the establishment of a collaborative 'magic circle', a creative collaboration linking the worlds of science, governance, industry, the media and the community"

Surely this description of Mode III science is the "reality" that politics and policy development are operating in –

But are our research institutions and policy development agencies capable?

Mode III science

Why the need for Mode III science? – "wicked problems" (Dovers,1996)

"conservation of biodiversity and ecosystem function, increased water use efficiency, reduced forest clearing …" (Harris, 2007)

The Landscape Futures Program Mission will be to
- gather quality data and <u>develop new analysis</u> and landscape system description capability <u>in partnership</u> with <u>managers</u> and <u>policy makers</u>, to
- improve and embed the <u>ideals and processes</u> of using evidence-based <u>decision making</u>, and
- <u>educate and train</u> people to apply landscape system models and predictions that indicate how to better <u>manage</u> and <u>monitor</u> our landscapes into a <u>changing future</u>.

Scientific research in a political world of changing expectations

My perspective:

The policy development "world" is likely to be better served by Mode III science rather than Mode I science

How well are our research institutions and policy development agencies pre-disposed to a different way of operating?

Research institutions:

Universities – many within have no idea! (future funding is at risk)

CSIRO – many parts increasingly operating in this mode

CRC's – have most of the elements, high transaction costs & transient

Policy development agencies:

Most are unaware with just a few examples of trying new arrangements!

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Moving to an improved relationship

- Science done in context of its application.._through engagement in a contextual and recursive debate_"

  - New arrangements are necessary – deliberate engagement between research institutions and government agencies to develop mode III science processes – this needs to include:

  - Support for multi-disciplinary teams with well defined purpose

  - Greater trust – long term relationships and mutual respect [agreements should be above personalities]

  - Joint ownership with commitment - [joint positions, secondments]

  - Recognition of the need to build and renew capability – ["grow your own"]

  - Understand the operating conditions and personal motives of those involved

  - Try "influence and manage" rather than "control"

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Water researchers and policy developers – a new relationship?