



Ecosystem Services and Valuation in Catchment Management and NRM

Dr Roel Plant¹ and Paul Ryan²

¹ Institute for Sustainable Futures, University of Technology, Sydney. Email: roel.plant@uts.edu.au

² Interface NRM, PO Box 271, Beechworth, Victoria 3747. Email: paulryan@internode.on.net

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Presentation outline

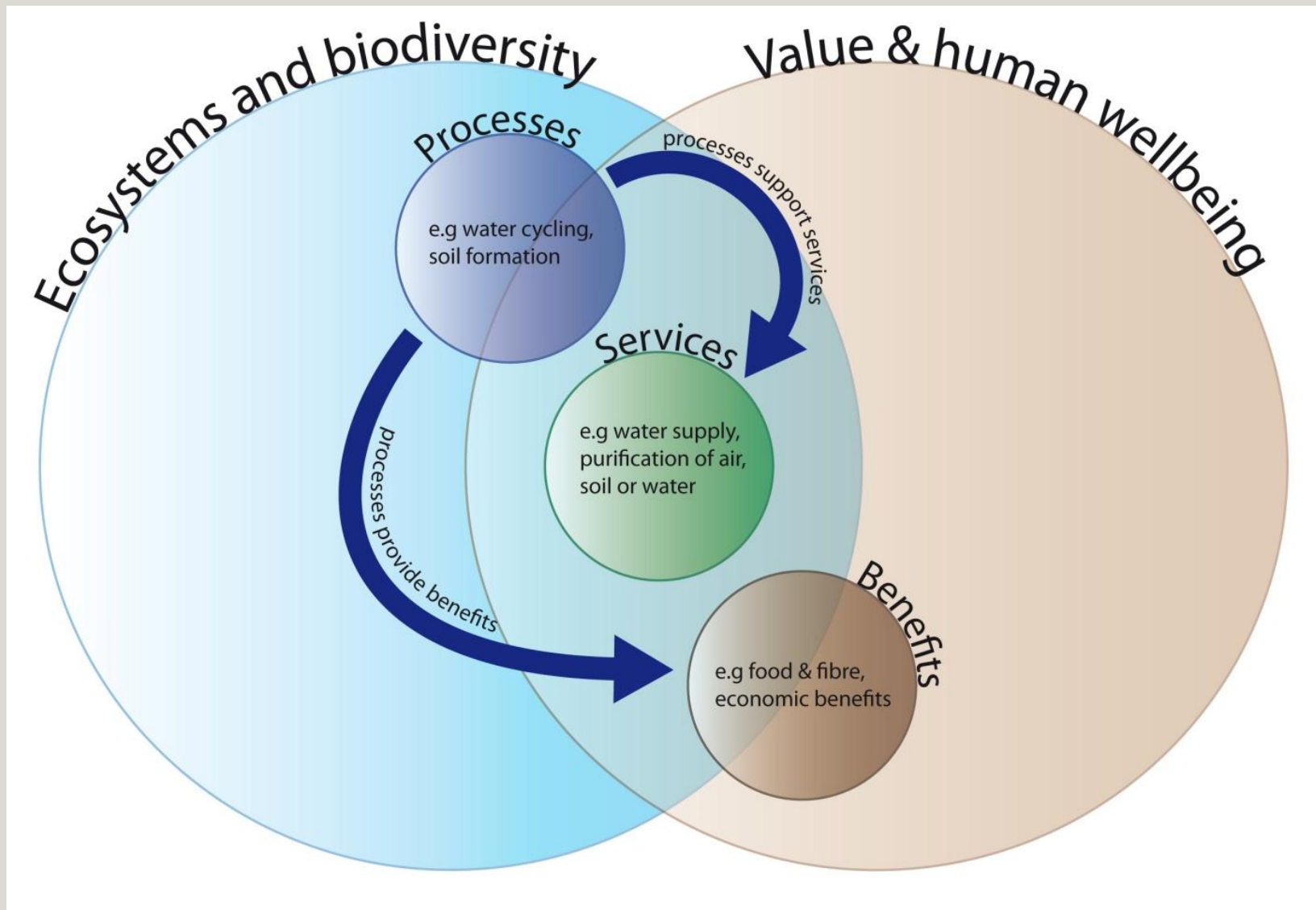
- Ecosystem Services
- Catchment management
- Knowledge adoption
- Notes from the field (VIC, NSW)
- Conclusions

The Ecosystem Services Concept

- An intuitive and (deceptively) simple concept
 - The benefits that people obtain from ecosystems
 - ‘People depend on nature’
- Using market forces for conservation
 - Giving the ‘invisible hand’ a ‘green thumb’
- Using economic principles to internalise the externalities
 - ‘Natural assets’
 - Nature as a ‘business asset’



Ecosystem Services and Human Wellbeing



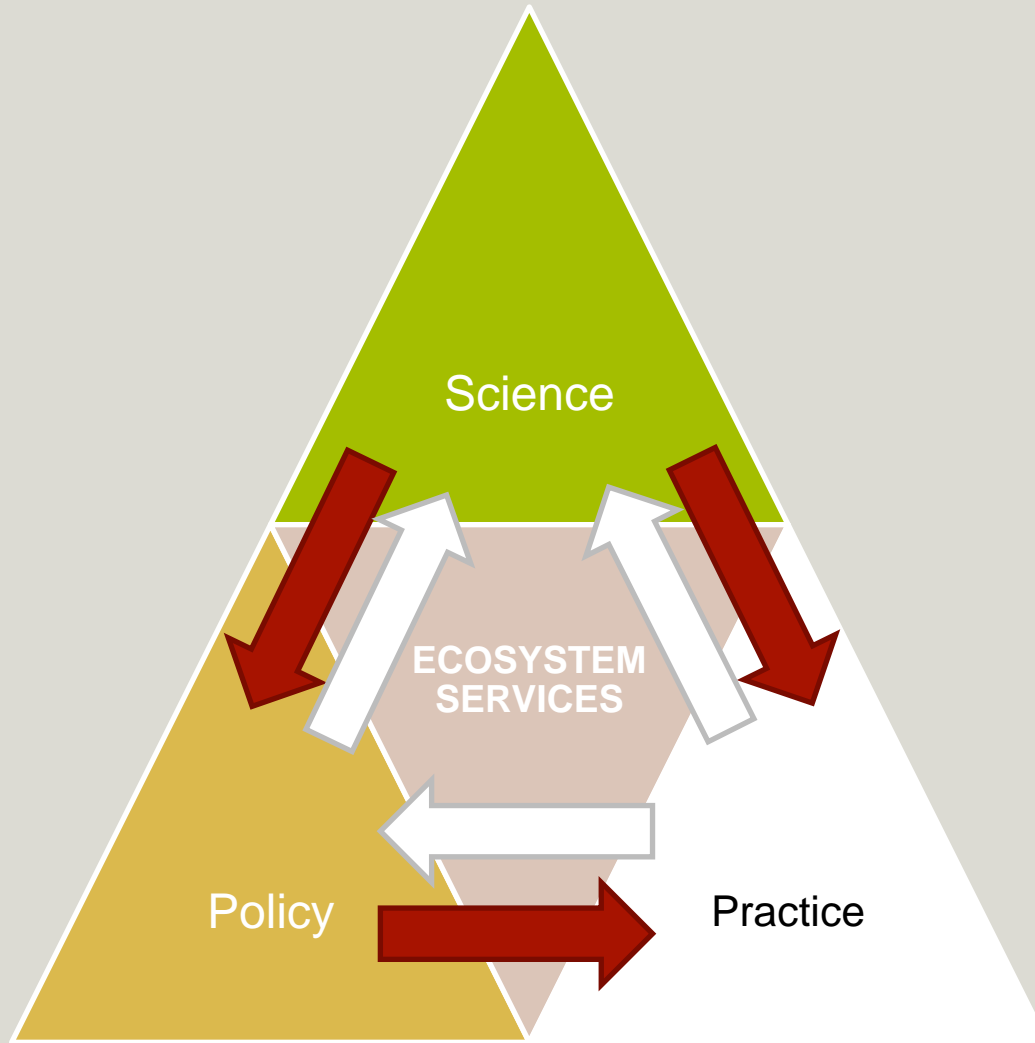
Catchment Management Challenges

- How to make investment decisions?
- How to adequately describe the resource base, identify priorities and beneficiaries, set objectives and articulate trade-offs?
- How to weigh up the long term and the short term costs and benefits?
- How to communicate and engage with stakeholders and communities?
- How to monitor and evaluate progress against targets?



Ecosystem Services concept *potentially* useful

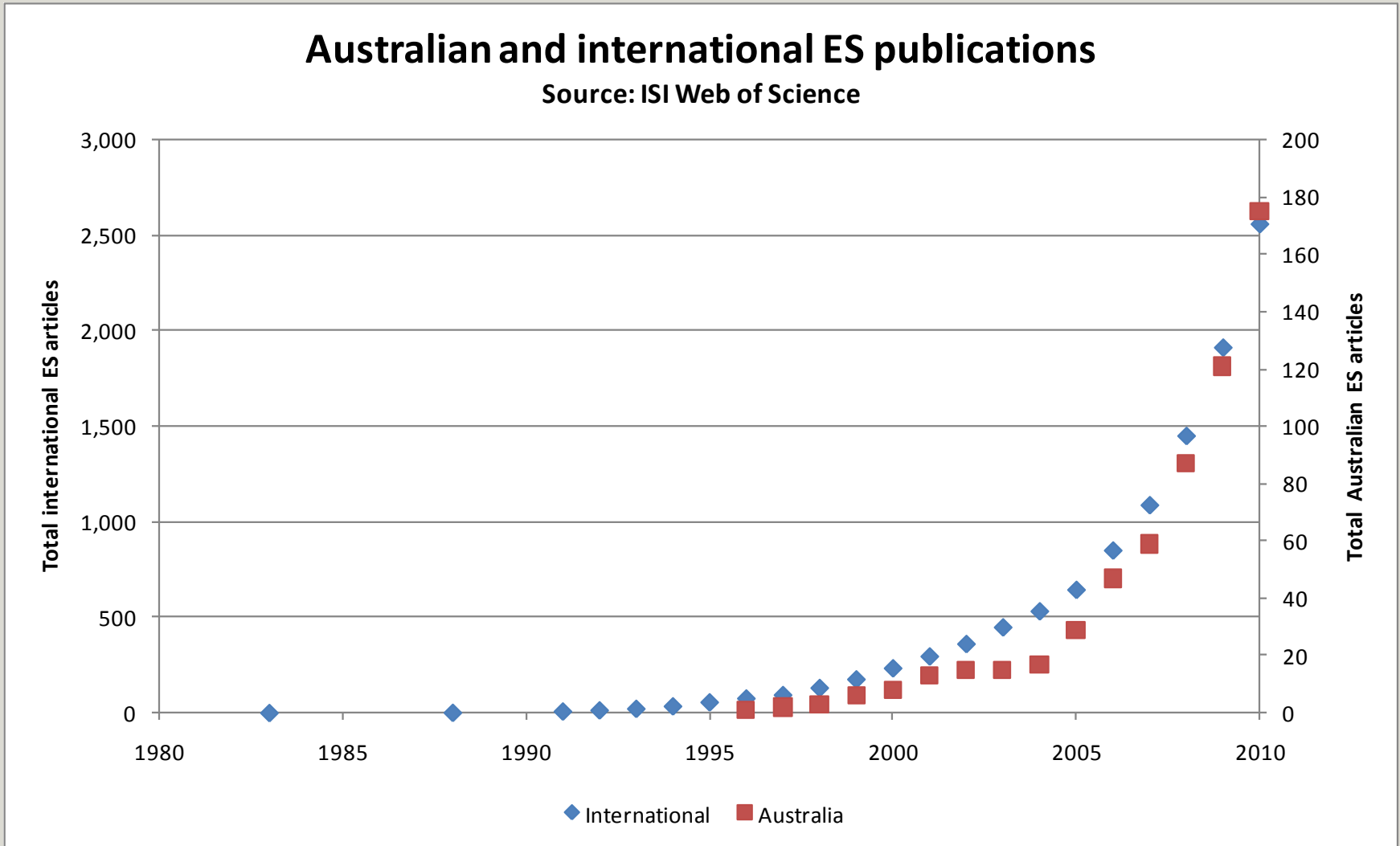
ES at the Nexus of Policy, Science and Practice



Trends in Scientific Publications

Australian and international ES publications

Source: ISI Web of Science



Research Questions

1. Has the ES concept been adopted and utilized by natural resource management practitioners in Australia?
2. What factors have enabled or prevented this adoption?
3. What can policy makers and scientists do better?

Methodology

- Face-to-face interviews with seven CMAs in three ‘clusters’ (conducted in 2009)
 - ‘Experienced’: Goulburn-Broken CMA, North Central CMA
 - ‘Intermediate’: Namoi CMA, Border Rivers-Gwydir CMA, Murray CMA
 - ‘Beginners’: Murrumbidgee CMA, Lachlan CMA
- Interview questions
 - Understanding of ES concept
 - Experiences with ES concept
 - Future of ES concept
 - Alternative concepts

Understanding of ES Concept (1)

“.. it’s not actually a term that I use”.

“.. the term [..] is really about human needs. It has nothing to do with what actually happens out there”.

“.. the concept was developed so that people actually had a label to put on [degraded services] and therefore be able to [..] factor those services into how we manage our economy”.

Understanding of ES Concept (2)

- “..the things that are provided [..] from an anthropocentric point of view”. “.. the goods and services that are generated by nature”.
- “.. ES is one of those [..] buzzwords that was more in flavour four, five years ago. I haven't really heard it talked about since then or in more recent times”.

Experiences with ES Concept (1)

“.. the way that I’m seeing it used in my sphere is not adequate”. “ [..] we’re much more inclined to talk about landscape function”. “I used it once with [a] veg project”.

“[..] we’re driven by having to deliver X hectares of biodiversity conservation [..]”. “They’re the targets that we’re delivering against, so that’s the language that we’re using”.

“I think we’ve moved to multiple outcomes”.

Experiences with ES Concept (2)

“I’ve used it as a tool [to give value to natural resources] knowing that it is very human centric”.

“Enables a tool to integrate [vegetation and production]”.

“[the ES concept] has been in the background for a long while”.

“.. all the stewardship [projects] would have that environmental services particularly in mind”. “[the surveys] wouldn’t have used that particular word [ES], no”.

Experiences with ES Concept (3)

- “.. there are particular services [..] that I’m interested in, not that others aren’t important but I just feel like sometimes the concepts gets so fluffy”.
- “.. it’s hard enough to do [ES assessments] for one catchment. Or maybe it’s easier to do it at a national level fairly broadly”.
- “..the term ES is often part of a proposal”.
- “..concept has been useful but in practice it hasn’t really gone anywhere”.

Future Projects Based on ES

“If [ES] popped up in a target somewhere then we would play the game”.

“The political will of the organisation is behind a different paradigm”.

“The State planning framework is useless in terms of trying to decide [on] development. [...] in State planning we can't get any of our information products that we've invested in [into] the planning process”.

Alternative Concepts and Approaches

- Comprehensive Adequacy Representation (Namoi)
 - Have certain amount of landscape units intact across landscape
- Change Management (Namoi)
 - Resilient communities; Resilience is an outcome
- Multi-Criteria Analysis (Namoi)
 - Development Pressure
- INFFER (North Central, Goulburn-Broken)

Gaps and Challenges (1)

“There are none”.

“[..] the whole complexity [..], the thing you’re trying to introduce, will be stepped away from [..]”.

“.. Struggling with the notion of value as opposed to assets”.

“[..] need to understand function before you can intervene”.

“Our [..] CMA has missed out on the [CfoC] targets. We’ve come up as not fitting into these categories”.

Gaps and Challenges (2)

“.. I’m not sure what happened [in the G-B] has had much of an influence nearby”.

“There’s a fundamental problem with complexity and magic black boxes that people [..] invent, and forgetting [how] decisions are made around a boardroom table”.

“.. the term is not very user friendly, particularly with the community”.

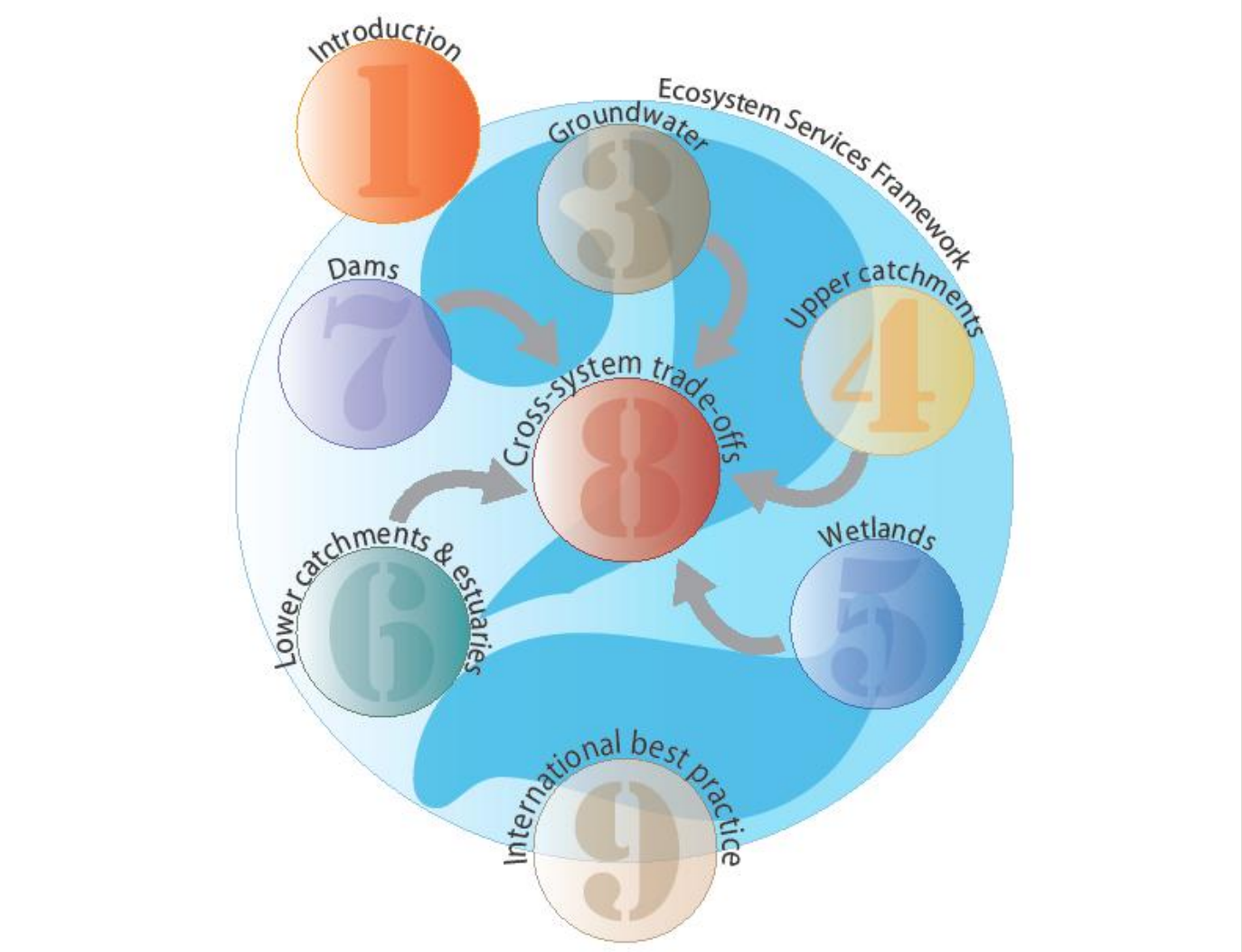
Conclusions

- Despite international momentum and strong interest from scientific community Australian NRM practitioners (catchment managers) do not display much enthusiasm for the ES concept
- Thinking about catchments as (natural) assets providing value and benefits has found its way into NRM practice (e.g. stewardship programs)
- Main barriers to adoption are a lack of clarity about concept; lack of access to best practice examples; and a lack of tools

Ways Forward

- Policy makers:
 - Express targets in terms of ES and provide practitioners with the tools to ‘do ES’
 - Nationally consistent approach
 - Integration of NRM and water planning
- Scientists:
 - Collaborative applied research projects (e.g. under CfoC) – keep it simple; ‘fit for purpose’ data collection; sharing of best practice examples

NWC Project: 'Recognising ES in Water Planning'



Thank You

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Dr Roelof Plant

Research Director / Program Leader, CRC CARE

Institute For Sustainable Futures

University of Technology, Sydney

Broadway, Sydney NSW 2007

AUSTRALIA

T +61 2 9514 4973 / F +61 2 9514 4941

Roel.Plant@uts.edu.au

www.isf.uts.edu.au