

Q&A Regional water management: values, priorities and decision making

Wednesday 2nd April 2025

#	Question	Answer	Answer Name
1	From the analysis, were there any insights to how in writing strategies and plans, decisions were made on balancing different values?	Hi Chris - Maddy will talk to this in the next presentation. One of the findings from existing policy documents is that there is very little mention of priorities or tradeoffs - how to balance different values. Based on this finding, Maddy has explored values and priorities in more detail through her PhD.	Avril Horne
2	Hi, I'm from the University of Southern Queensland, PhD Student in "Water Policy and Governance". My question is "Can Agent-Based Modeling (ABM) be effectively used to model future water demands in the Murray-Darling Basin, considering factors like climate change, population growth, and policy changes? Also, I wanted to ask Melissa that in her presentation, she mentioned that most cases struggle to understand what policymakers are actually doing. Wouldn't Agent-Based Modeling (ABM) be a good approach to incorporate the perspective of policymakers as 'agents' and analyze their decision-making process alongside other stakeholders?" Thankyou.	I think there is a lot that Agent-Based Modelling can be used for in water management. Like many modelling tools it helps understand the system and how different people act in response. We have used it previously to understand decision making between different water managers and can see its utility. I think the challenge that Melissa was highlighting is that it is not always clear who is involved in which decision and how. This is an important step is setting up an ABM. I do think in water policy in Australia we use a very narrow set of modelling approaches and it is worth thinking more broadly about what modelling tools can help with what questions.	Avril Horne
3	Aren't values implied in everything we do in the public sector?	live answered	Avril Horne
4	Does not referring to values in decision making mean that decision making pathways and actors are unconscious of the way values influence their actions? If so - are there any insights about how to shift this conscious or unconscious blind? Can we learn anything from unconscious gender bias approaches?	live answered	Avril Horne
5	How do the Cultural Values inform Closing the Gap Priority Reforms in terms of decision-making	I am no expert on the CtG Reforms but what I can contribute is it will be critical that decision-making frameworks reflect Indigenous values and ways of knowing and being, rather than Western decision-making structures. Indigenous values emphasise relationships, collective responsibility, and interconnected well-being, and I hope this is embedded in the CtG structures.	Melissa Kennedy
6	Jackson, S., Wyborn, C. & Annand-Jones, R. (2023) Relational values of the Murray-Darling Basin: a literature review. Griffith University and The Australian National University. Research Report for the Murray-Darling Basin Authority	Thanks for suggesting this - it is indeed a great article.	Avril Horne
7	Thinking about your point on the putting values into categories, how can we better support decision making to make the most of co-benefits and navigate trade-offs? Can be build on structured decision making?	Great question. I think to capture co-benefits and without trade-offs and rigid categorisation, we need to embrace relational thinking and dynamic modeling - Shift from categorisation to a network of relational values.	Melissa Kennedy
		Thank you Melissa. Is there a framework or research piece we can draw on to do this?	See Papers shared
8	I think 'empowerment' is a necessary especially for First Nations and community to communicate values.	Well said. One of the messages that came through in Maddy's interviews is that although people felt they had been asked what they think or what they value previously, this did not translate through to a sense of empowerment.	Avril Horne
9	What is the impact of the selection criteria of participants. e.g would more environmentalists tend to take the values towards the environmental side of values and users towards the other end. the selection of participants can bias the how was this controlled for the study	We looked at if background demographics for each factor. The environmentalist factor was not comprised entirely of environmentalists, there were some people with experience in landcare, recreationalists, residents, and tourism industry folks. And people in environmental/landcare demographics were scattered through all the factors. however there weren't any farmers in that environmental factor. Farmers were spread between the remaining 3 groups. Our participants were selected to be balanced between demographic backgrounds.	Madeline Grupper
10	It's interesting that people felt their values weren't reflected in policy documents - did you check if they felt their values were reflected in the summaries you produced from their feedback?	<i>That's an interesting question. We didn't produce a summary for each participant to check if our interpretation of them was the same as their perception of themselves. The qualitative and quantitative analyses took time after the interviews and we didn't have a follow up in our research design, although that be a great idea for future study. Our study focused more on why they didn't feel represented and what about their discussions stayed consistent rather than ensuring our interpretations seemed correct to them. But if we were going to use their specific feedback to aid in decision making, it would be best practice to have return consults with people through the planning process and that would provide the opportunity to check interpretations.</i>	Madeline Grupper
11	* can bias the outcome		
12	Given regional governance structures vary from state to state- particularly for environmental water governance- what are the implications for the findings/lessons across SA, Qld, NSW and ACT?	live answered	Avril Horne
13	Generally there is a atack of awareness amongst decision makers about the relevance of social science to NRM even though all the volatility about NRM is a social science question - so methodology is even more vague because in NRM social science is often not seen as science. How do you propose to make this shift in disciplinary blinds given the conceptual overload that decision makers have to deal with?	To bridge the gap between social science and natural resource management (NRM) while addressing the conceptual overload decision-makers face, we must take a practical and integrated approach. Providing targeted training and professional development backed by social science for waterway managers will equip them with the skills to ask the right questions and interpret community insights effectively, reducing uncertainty. Embedding cross-disciplinary education at the university level can prepare the next generation to navigate both environmental and social complexities also. A key factor will be making social science insights more accessible and actionable for decision-makers already managing vast amounts of scientific information.	Melissa Kennedy
		<i>I'd add to Mel's answer that there's also a question of willingness. What Mel discussed is important, but another factor is convincing people that such efforts are important and worthwhile. If people believe that social science is valuable to NRM then they will be more likely to invest in it, particularly if there were options as Mel suggested to make it more actionable and accessible. This is tricky - again we are talking about differing values. But some good starting points involve listening to experts and having leaders in different fields advocate for the importance and validity of social science within NRM. This is already happening a bit with more interest in interdisciplinary work and hopefully will continue.</i>	Madeline Grupper
14	I recently learnt about the legal status of waterways as a being, how does this feed into policy development and values and priorities?	The Birrarung (Yarra River, VIC) is a great example in Australia of how State policy is beginning to shift to this perspective of the rights of rivers.	Melissa Kennedy

		Thanks - is there any work like this in the northern catchment values work? As in the perspectives of the waterways, or is there no work on the status of these waterways yet?	
		Water is Life in Victoria is the only government strategy, as far as I'm aware, that acknowledges waterways as living entities. There are many examples of First Nations in the MDB who live and work with values of living rivers; rights of rivers are embedded in strategies and frameworks, but I don't believe there is anything from waterway managers in the Basin outside of the Victorian government's WIL.	Melissa Kennedy
15	Was the T method used for understanding First Nations peoples in terms of values. Or is there a lit review on this to read?	<i>Do you mean the Q method (ie the sorting activity we did)? If so, this is my answer: We were unable to do a separate Q method for First Nations peoples. That would have involved a co-design process that we were not set up for at the onset of our project. Looking at Indigenous values and priorities is important to this topic both in theory and specific to the Goulburn-Broken region though and a vital future step. There is definitely literature about Indigenous values. Mel spoke a bit about one framework in her presentation. If you're interested, I'd encourage you to read Sue Jackson's work on the topic - she's written some excellent papers about Indigenous water values in Australia.</i>	Madeline Grupper
16	I'm interested to hear how finances have played a part in the projects that you all have been a part of. Would one party get a larger share of the credit for X project? In some projects that I have seen in California, the shares for a given project are typically split (sometimes unfairly in the case of the Coachella Valley). But on the other hand in some cases, in the case of recycling water and selling back to City or private parties also causes conflict as profits are introduced. Just curious how that's played a part in your specific projects	Apologies not sure if I have correctly understood the question. Any water planning activities need to be cognizant of who holds power and a voice in the decision making process. There are path dependencies in historical decisions that define where we are starting from and how water has been divided up. Neoliberal perspectives are informing a lot of water policy and maximising profit and efficiency. The discussions on values are important as - from Maddy's research - there are an array of other ways people value water and there are relational elements not captured by this particular economic model alone.	Avril Horne
17	Madeline, Do you think we need to use one of Multi-Criteria Decision-Making (MCDM) methods for Sharing Priorities after that?	<i>MCDM would certainly be a good option to try to balance priorities and come up with potential solutions or compromises that work for community value systems and the research that backs existing water plans. But it would also be important to then go back and see if the resulting plan would or would not meet the values and priorities of those community groups. Much of our work revealed that community members feel listened to but not heard, so the goal of work coming out of this should not just be to understand how to best balance priorities using community input, but also to have the information and shared language to communicate about planning and compromise better.</i>	Madeline Grupper
18	Wondering how this work is being integrated into Victoria's Integrated Water Management approach, which I think provides a forum for water utility, LG, Govt, community and CMAs to collaborate on solutions to optimise water management in urban areas. There is so much similarities and challenges	Thanks - this work is hot off the press so not sure that those working on the Integrated Water Management approach in Vic would be aware. It is certainly something we are building on with the GBCMA and NECMA as they start working on the Regional Waterway Strategies. Would be interested to hear your thoughts.	Avril Horne
19	how do you deal with values specifically, not valuing downstream users when you have to plan for water connectivity through out an entire system. E.g. Flow to the Lower Lakes and Coorong. Is it realistic to reflect all community values in water plans?	While it may not be possible to capture every individual community value in water plans, using frameworks like the Raymond et al. (2023) values typology provides a structured way to reflect diverse priorities without forcing conflict or trade-offs. By developing an adaptive approach, planners can integrate a broad spectrum of values, ensuring flexibility and responsiveness to evolving community needs. This method allows for a more inclusive and balanced decision-making process, where different perspectives are acknowledged and incorporated without compromising the overall integrity of the plan. The key is having space for diverse groups to see themselves and their values reflected in some way in strategies.	Melissa Kennedy
20	I can not imagine that downstream is not a value if the waterway is a trans boundary.	In the priorities exercises it is not that downstream users are not of value - it is that those doing the exercise felt that local values were high priorities. This is a real challenge for large river basins. There are both downstream communities and ecosystems that rely on flows from upstream in the catchment.	Avril Horne