Equity, fairness and justice in water policy

Mapping stakeholder perspectives in the Murray-Darling Basin

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Disclaimer

Credits

Each listed author has made a significant intellectual contribution to the work, as follows: *Lucy Parry*[1], conception and design, contribution of knowledge, data acquisition, data analysis and interpretation, report drafting, report review; *Rod Marsh*[2], conception and design, contribution of knowledge, data analysis and interpretation, report drafting, report review.

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Watertrust Australia acknowledges the Traditional Owners of land, sea and waters throughout Australia and their continuing connection to culture and Country. We pay our respects to Elders past and present.

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Key messages for policymakers

Understanding stakeholder perspectives on fairness is crucial for effective water governance.

Stakeholders value fairness in water policy outcomes and decision-making processes. However, stakeholder perceptions of fairness differ considerably, reflecting their varied worldviews, experiences, and interests. This study complements Watertrust's broader work on fairness in water policy and deepens understanding of the diversity in stakeholder perspectives. Understanding areas of alignment and divergence among these perspectives is crucial for policymakers seeking to develop negotiated and effective policy solutions. While greater clarity about these differing perspectives on fairness does not eliminate conflict, identifying areas of common ground or disagreement can help policymakers anticipate where proposed reforms might gain support, face resistance or present opportunities for developing mutual understanding among key stakeholders.

Watertrust selected the Murray-Darling Basin as a case study.

We use the Murray-Darling Basin (the Basin) as a case study due to its complexity, diverse stakeholders, and prominence in Australian water policy. We believe research in the Basin offers lessons broadly relevant for understanding stakeholder fairness perceptions in water governance. This study does not judge the legitimacy of differing stakeholder perspectives but instead aims to understand the range of perspectives that exist, as an input into more effective policymaking. By clarifying these diverse perspectives, Watertrust seeks to support policymakers in navigating complex water governance challenges, facilitating constructive engagement among stakeholders, and finding solutions that, on balance, deliver better outcomes for all involved.

Five distinct perspectives shape Basin stakeholder perceptions of water policy fairness in our sample.

Our analysis maps five major stakeholder perspectives or positions—Environmental Defence, Country Localism, First Nations Restoration, Plan Pragmatism, and Complexity Pluralism—each with a different perspective on fairness. Participants' views did not always conform exactly to a single perspective and this is likely the case for most individuals with an interest in Basin water policy. These five perspectives are best understood as representing distinct patterns in how people from different backgrounds perceive the world and their place in it. These patterns do not imply strict uniformity within groups; rather, they represent coherent, identifiable perspectives that contribute to shaping advocacy coalitions and policy debates.

Environmental Defence prioritises ecological restoration and intergenerational equity, arguing strongly for robust environmental protections and restorative justice for First Nations communities. Country Localism stresses local community interests and equal treatment for all stakeholders in water policy. First Nations Restoration prioritises redressing historical injustices faced by First Nations communities, emphasising the interconnectedness of environmental, cultural, and economic outcomes. Plan Pragmatism advocates for a

balanced and centralised approach to water management, seeking equitable outcomes through federal oversight. Complexity Pluralism acknowledges the inevitable complexity and trade-offs involved in water management, advocating for pragmatic, incremental policy development rather than radical change.

Common ground exists around transparency, intergenerational fairness, and environmental responsibility.

We identified several areas of relative alignment among stakeholders. General agreement exists on the importance of clear, consistent, and accessible information about water markets, underscoring the need for transparency to ensure fair operation. Additionally, stakeholders generally recognise the importance of considering intergenerational equity, emphasising environmental stewardship and sustainability. These shared principles, however, are often interpreted differently. Policymakers should leverage these shared values as starting points for dialogue, recognising that alignment does not equate to consensus and nuanced understanding is crucial to avoid misinterpretations or superficial agreement.

Stakeholder perspectives diverge fundamentally on some water policy issues and are particularly polarised around First Nations water rights, water recovery for the environment, and the Basin Plan itself—key policy areas governments have prioritised.

About 40% of statements strongly supported by one group were strongly opposed by another, illustrating profound value conflicts. We identified several particularly polarising issues that closely align with current government policy priorities, notably the recognition of First Nations water rights, the fairness of government water buybacks, and the perceived legitimacy of the Basin Plan itself. Stakeholders differ significantly in how they frame these issues, reflecting deeper divides in their underlying values and worldviews.

For example, Country Localism strongly opposes special treatment for First Nations communities, considering it unfair to other Australians, while First Nations Restoration and Environmental Defence firmly support such restorative measures as essential for addressing historical injustices and achieving genuine equity. Water buybacks, a controversial tool used by governments for environmental water recovery, are perceived by Country Localism as inherently unfair and damaging to communities; Environmental Defence, by contrast, regards them as necessary and effective, although recognising that their implementation can be improved. Environmental Defence, Plan Pragmatism and Complexity Pluralism all had neutral or positive views of the Basin Plan, while Country Localism and First Nations Restoration saw the plan in a negative light, both agreeing that the Plan is "unjust and defective".

Our findings highlight a key challenge for policymakers: different groups not only disagree on solutions but also perceive and frame the underlying issues and potential policy responses in distinct ways. This aligns with a well-established political science insight that persistent policy disputes often arise from differing problem framings.[1–3] The alignment of these contested issues with government priorities underscores the challenges policymakers face in advancing water reforms and highlights the critical importance of proactively managing stakeholder expectations and engagement.

Policymakers should explicitly recognise and manage conflicts arising from differing perceptions of fairness to help restore stakeholder trust.

The recent erosion of trust in water governance links to stakeholder perceptions of unfairness in policy processes and outcomes. Effective water policy implementation depends not only on scientific evidence and technical rigour, but also requires transparency, authentic stakeholder engagement, and meaningful recognition of stakeholders' experiences and values. Policymaking should explicitly acknowledge the distribution and redistribution of benefits and burdens, addressing concerns around fairness proactively

rather than reactively. This study demonstrates how deeply perceptions of fairness in water policy are intertwined with stakeholders' varied values, historical experiences, and social contexts. The explicit inclusion of equity and fairness principles in Australian water policy and legislation over recent decades suggests policymakers may need to grapple further with how divergent worldviews and value systems shape these perceptions.

Explicit recognition and proactive management of divergent perspectives on fairness through structured dialogue and consultation can significantly enhance policy legitimacy and contribute to rebuilding stakeholder trust. The findings underline the importance of employing engagement strategies tailored to clearly articulate commonalities and divergences, facilitating more nuanced and effective policy responses to complex and contested issues. The considerable proportion of highly polarised statements—especially around priority issues—illustrates the substantial challenges policymakers face in navigating the path ahead.

Watertrust undertook a population-scale, representative survey with Ipsos to test and generalise the results of this Q study. Over 3,500 people participated in the survey. The report for this research can be found on the Watertrust website.

What do stakeholders think about fairness in water policy?

Fairness in water policy

Stakeholders in many policy domains care deeply about fairness—not only in policy outcomes but also in the processes through which decisions are made. Exactly how they care about fairness, however, differs considerably and is shaped by their underlying worldviews, perceived threats, and experiences of past policies. Fairness emerges repeatedly as a significant yet contested principle in water policy debates, consistent with previous Watertrust analyses of public submissions, parliamentary debates, and media discourse.[4] For most stakeholders, equity, fairness, and justice are closely related ideas that all express a belief in what is morally right or acceptable. This overlap is not just in everyday language—it also occurs in important philosophical writings (see 5.2).

Australian water policy has explicitly recognised equity and fairness as fundamental principles for decades. As early as 1973, the Commonwealth's *National Approach to Water Resources Development* acknowledged the critical importance of distributional outcomes, emphasising that water policy could either widely distribute rural prosperity or concentrate it "in the hands of a few".[5] Similarly, the 1987 Murray–Darling Basin Agreement committed explicitly to the "equitable, efficient and sustainable use" of water and environmental resources. State legislation, including the NSW *Water Management Act 2000*, has consistently highlighted "equitable sharing" as a core objective. Likewise, the Commonwealth's *Water Act 2007*, informed by COAG's 1992 *National Strategy for Ecologically Sustainable Development*, explicitly incorporated intergenerational equity into decision-making principles, underscoring the ongoing centrality of fairness in national water governance.

Despite these longstanding policy commitments, the concepts of equity and fairness have rarely been clearly defined in legislation, a gap highlighted more than two decades ago by Geoff Syme. Syme observed in 1999 that although governments frequently promise "equitable" resource allocation, they often neglect to specify precisely what "just", "fair" or "equitable" mean from the perspective of stakeholders:[6]

> Government policies constantly state that resources will be allocated 'equitably', yet the area that has received least attention is the *definition* of *what is* '*just*', or '*fair*', or '*equitable*' as seen by the range of stakeholders in water allocation decisions. [...] It is not enough for governments to espouse the policy of 'equitable allocation' when the determinants of equity are unclear [...] There is a need to understand how people interpret equity, justice and other principles when the outcomes of decision-making affect them personally.[6]

Syme's concerns remain relevant today and are supported by Watertrust's recent review of legislation across the Basin jurisdictions.[7] The Murray–Darling Basin Plan, in particular, has tested the capacity of policymakers to balance scientific, environmental, irrigator, First Nations and community interests. Over recent decades, international perspectives on Australia's water reforms have shifted dramatically. Once praised as innovative—*The Economist* called Australian reforms "the top prize for water management" in 2003[8]—they have more recently been described as a source of "water wars", failing to deliver clear improvements,[9] and characterised by stagnation rather than progress.[10]

In the Murray-Darling Basin, which is the focus of this study, water governance debates have been acrimonious, described in 2020 as "increasingly toxic", rife with misinformation, mistrust, and allegations of regulatory capture.[11–13] Public debates have reflected deep concerns about fairness. For instance, submissions to the ACCC's water market review argued that market opacity and lack of timely information resulted in unfair competitive advantages for some actors over others. Similarly, political representatives have frequently invoked fairness to describe perceived inequities between states in terms of water reform efforts or water access. Local community members have criticised policies they believe benefit powerful irrigation lobbies at the expense of smaller communities and the environment. Even stakeholders supportive of market-based mechanisms argue for fair and transparent market governance.[4]

These debates and controversies have significantly undermined trust in water governance institutions. Reviews including the 2020 Sefton Report,[14] the Interim Inspector-General's findings,[11] and the ACCC's 2021 water market inquiry[15] have documented a worrying decline in stakeholder trust, explicitly linking it to perceptions of unfairness in both processes and outcomes. The Productivity Commission echoed these concerns, noting that trust is fundamental for effective water governance, but the governance architecture underpinning the National Water Initiative has been "significantly eroded".[16]

Trust cannot flourish where stakeholders perceive water policy decisions as inequitable, unfair, or unjust. As one commentator has argued, "no satisfactory resolution of the many complex problems that plague water resources governance can be found without dealing with issues of equity".[17] Yet despite frequent invocation, explicit definitions of fairness, equity, and justice remain rare in water policy documents. Recognising this gap, Watertrust has conducted research designed to clarify subjective understandings of these concepts among stakeholders in the Murray–Darling Basin, extending Syme's earlier foundational work.

The following sections present the findings of this part of Watertrust's research, mapping the diverse ways stakeholders interpret equity, fairness, and justice. By clarifying these subjective perspectives, this analysis aims to help policymakers better navigate the complex social, economic, and ecological trade-offs inherent in Basin water governance.

Using Q methodology to map perspectives

In this study, we used a research method called Q methodology (Q) to map perspectives on equity fairness and justice in Basin water policy. We complemented conventional Q with a set of A|B questions to map participants' perspectives on the ecological status of the Basin, the role of government, and trust in science. Q can be thought of as a research method for perspective or position mapping. It was originally developed to identify shared, subjective perspectives on a topic. It has been used widely across many research areas including political science, environmental studies, education, sociology, social psychology and health sciences. Q works by asking participants to sort through and arrange a set of statements on a grid, from most agree to most disagree. All the statements are related to the topic are usually sourced from media, academic literature, interviews or government or NGO reports. Participants are selected to take part because they are actively interested or involved in the topic personally or professionally. Guided by a researcher, participants construct a map of their view on the topic by ranking the statements based on how much they agree or disagree with them. These individual maps are collected and analysed using a type of factor analysis that clusters together participant maps that are arranged in a similar way. The results are then interpreted into shared perspectives or discourses that can be used to provide an in-depth understanding into complex, polarised debates, and used to inform further research and engagement on the topic.

Q is particularly valuable for mapping nuanced perspectives in complex and contested policy domains such as water policy. By allowing participants to express their views through statement ranking rather than predefined questions, Q captures the diversity and depth of perspectives that traditional survey methods may miss. It effectively integrates quantitative rigour with qualitative interpretation, helping policymakers understand not only what stakeholders believe but why. The analytical logic of Q also differs significantly

from traditional surveys. Rather than analysing individual questions as variables, Q treats participants' entire ranking sets (Q sorts) as variables. Q's quantitative analysis clusters participants based on similarity in their overall views, revealing distinct groups who share common perspectives. This inverted analytical approach further reinforces Q's strength in capturing holistic perspectives rather than isolated opinions. Q is an interpretive methodology: findings are not statistically generalisable to broader populations, participant selection can introduce researcher bias if not carefully managed, and results depend significantly on researchers' interpretive judgement. Consequently, if the aim is to generate insights that can be generalised to a broader population, Q is best.used alongside complementary approaches, such as large-scale surveys, to validate and contextualise its insights. Watertrust extended the results of this study using a population scale representative survey with Ipsos, which was designed using the insights gained from this perspective mapping study.

In this perspective mapping study, we identified 41 statements representing a diverse set of views on fairness, equity, and justice in water management in the Basin, drawn from more than 2200 public submissions to Basin water policy and management inquiries from 2015–2023. Statements underwent extensive refinement, expert review, and piloting to ensure clarity and balance. Sixty-seven participants from across the Murray-Darling Basin, representing varied stakeholder groups and geographic locations, ranked these statements according to their level of agreement during online sessions guided by trained interviewers, including First Nations participants interviewed by First Nations researchers. Participants explained their choices during the Q sort process, providing qualitative insights into their ranking choices and perspectives. We analysed the responses using statistical techniques and qualitative interpretation, identifying clusters of perspectives that reveal the major patterns and differences in stakeholder opinions about water policy in the Basin.

Five perspectives emerged from the study

The results of our Q study suggested five perspectives about fairness in water policy in the Basin. These are listed below at Table 1 with the top ranked statement of each perspective. This is followed by a longer narrative description of each factor. The descriptions below were interpreted using the 'crib sheet' method[18] which enables a holistic comparison of statement ranking across the factors. It is supplemented by qualitative data gathered during the study, as well as four additional A|B questions asked at the end of the Q sort. These additional questions provided an insight into participants' views on some key topics known to be important to debates around water policy and governance in the Basin.

The descriptions below integrate the Q study results and statements, quotes from participants, and additional question responses. Question responses are also shown at the end of each description. Further detail on each perspective can be found at Detailed description of the five perspectives and the factor array showing each perspectives' assessment of each statement can be found at Table 8 both in Appendix B: Detailed findings.

Table 1: Five perspectives with top-ranked statement

Perspective	Most agree statement and summary
Environmental Defence	*#10 We need to protect and restore the environment to be fair to future generations.* Environmental Defence prioritises environmental protection above all else, seeing it as essential for the long-term sustainability of communities, economies, and the broader ecosystem. This perspective supports the Murray-Darling Basin Plan as a necessary but imperfect tool for addressing ecological crisis, even if it imposes burdens on agricultural sectors. Fairness, from this perspective, is defined by the need to rebalance water use for environmental restoration, with the understanding that some sectors must bear the costs, which is not inherently unjust. The perspective also strongly advocates for restorative justice for First Nations communities, emphasising the need for recognition of their water rights as a critical step in addressing historical injustices, though it maintains that unallocated water should benefit both Aboriginal communities and the environment.
Country Localism	*#15 The Basin Plan was hijacked for political and personal gain.* Country Localism prioritises regional and rural interests, believing that successive water reforms have unfairly disadvantaged local communities and economies. This perspective rejects the Basin Plan, considering it unjust and defective, arguing that centralised, top-down management has led to a disconnection from local knowledge and priorities. It views the environmental threats as exaggerated and contends that local communities have borne the brunt of policy changes. For Country Localism, fairness means equal treatment for all, and it opposes preferential treatment for First Nations communities in water allocation, believing that such approaches are divisive and unfair to other Australians. The perspective also strongly criticises government water buybacks, seeing them as detrimental to regional livelihoods and unfairly burdensome on the agricultural sector. Country Localism values local expertise, supports greater local decision-making, and believes that water policy should better reflect the realities and needs of regional communities.
First Nations Restoration*	*#8 The Basin Plan must deliver positive and equitable Aboriginal benefits, alongside the traditional triple bottom line of social, environmental and economic outcomes.* First Nations Restoration prioritises the rights and needs of First Nations communities, emphasising their deep, interconnected relationship with land and water. This perspective asserts that the Basin Plan has failed to deliver fairness to First Nations people and the environment, reflecting ongoing injustices stemming from colonisation. First Nations Restoration believes that Aboriginal communities must have a stronger, more meaningful voice in water decision-making processes. This requires involvement in management decisions and the allocation of water rights to meet cultural and economic objectives. While valuing a healthy river system, this perspective also stresses the importance of political inclusion and equitable access to water for First Nations communities. It argues for restorative justice to redress historical wrongs and believes that any fair water reform must address the needs of First Nations communities alongside environmental restoration because these are seen to be intertwined.

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*We recognise that Aboriginal and Torres Strait Islander Australians have differing views on the use of the terms "First Nations" or "First Nations Australians". We use both terms in this document noting advice from AIATSIS, "There is a growing preference for First Nations Australians as a more encompassing term, because while it also is generic, it acknowledges the diversity of Aboriginal and Torres Strait Islander peoples" and in the Australian Government Style Manual and advice from the Australian Public Service Commission.[19–21]

Table 1: Five perspectives with top-ranked statement

Perspective	Most agree statement and summary
Plan Pragmatism	*#6 Upstream take and downstream needs must be fairly balanced.* Plan Pragmatism prioritises balanced, inclusive, and transparent processes in water policy, emphasising the importance of fairly trading off different interests rather than prioritising any single group. It sees the Basin Plan, despite imperfections, as the best and fairest available approach, especially with federal oversight to balance competing state upstream and downstream interests. Plan Pragmatism values consistency and equitable treatment for all stakeholders, strongly opposing preferential water access for any particular group, including First Nations communities. It is less swayed by strong claims about intrinsic environmental values, focusing instead on practical outcomes and the balanced management of resources for future generations. This perspective recognises that conflicting demands inevitably lead to complexity but trusts established political institutions to manage these fairly.
Complexity Pluralism	*#33 Addressing conflicting demands for water is a complex problem and there are no simple solutions to make outcomes fairer.* Complexity Pluralism emphasises the inherent complexity of balancing conflicting demands in water policy, acknowledging there will inevitably be winners and losers. While recognising the Basin Plan as imperfect, this perspective accepts it as the most workable approach to navigating complex and competing interests. Complexity Pluralism sees equity and fairness as inherently subjective, and although it acknowledges hardships faced by regional communities, it accepts these as unavoidable consequences rather than grounds to halt reform. Unlike Plan Pragmatism, Complexity Pluralism prefers decentralising power to markets, states, and communities, rather than relying heavily on central government oversight. It maintains a pragmatic view of the water market, accepts the environment as dynamic and resilient, and avoids emotive claims of crisis or injustice. It also remains largely neutral regarding specific rights for First Nations communities, believing instead that fair outcomes depend on practical negotiations rather than idealised solutions.

Relationships between the five perspectives

To examine relationships among the five perspectives, we computed pairwise Spearman rank correlations (ρ) using the 41 statement placements from each factor array (integer ranks from the forced Q distribution). Because several statements share the same placement, correlations used standard tie handling. Figure 1 shows ρ on a -1 to 1 scale: deeper blue denotes stronger positive correlations (more similar orderings); deeper red denotes negative correlations (inverse orderings). We then applied hierarchical clustering to the correlation matrix (distance = $1 - \rho$; average linkage) to produce the dendrogram, which groups perspectives with similar rank patterns. As a robustness check, we repeated the analysis with Kendall's τ_b (tie-aware); the correlation pattern and resulting clusters were near-identical.

The strongest alignment is between Environmental Defence and First Nations Restoration ($\rho = 0.49$), suggesting these perspectives share overlapping values, particularly around the moral imperative of environmental protection and long-term stewardship. Environmental Defence also shows modest positive correlation with Complexity Pluralism ($\rho = 0.31$), indicating some shared framing around the need for systemic or structural change. First Nations Restoration and Complexity Pluralism have a weak negative relationship ($\rho = -0.08$).

Plan Pragmatism displays low to modest positive correlations with all other perspectives (ranging from $\rho = 0.03$ to $\rho = 0.21$), suggesting it acts as a moderate or centrist position. Its highest correlation is with Complexity Pluralism ($\rho = 0.21$), indicating some shared emphasis on compromise, planning, and adaptability in water governance. Plan Pragmatism's lowest positive correlation is with First Nations

Restoration ($\rho = 0.03$).

In contrast, Country Localism is the most distinct perspective and stands out in the dendrogram, though it is closest to Complexity Pluralism and Plan Pragmatism where it shows a low positive correlation ($\rho = 0.1$ and $\rho = 0.16$ respectively). Positive correlations arise from similar views on issues including water policy impacts on small communities, balancing upstream and downstream benfits and burdens, First Nations water rights, and working to find common ground. Country Localism has stronger negative correlations with Environmental Defence ($\rho = -0.33$) and First Nations Restoration ($\rho = -0.19$) reflecting fundamental differences in values and framing, particularly with regard to the role of government, knowledge for policymaking, the legitimacy of the Basin Plan and First Nation's water.

Taken together, these relationships illustrate the contours of potential agreement and conflict in deliberations. While some perspectives show room for alignment, others reflect deeper differences that may be more difficult to bridge.

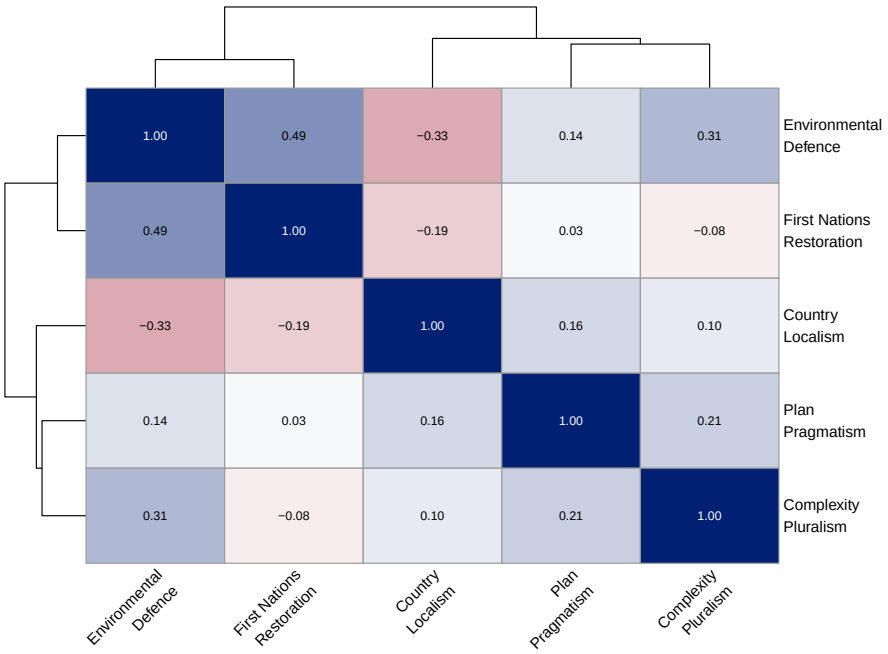

Figure 1: Overlap between stakeholder perspectives – where overlap is a function of the correlation between typical responses to the survey for each perspective (using Spearman's rho). Darker blue indicates stronger positive correlation (greater similarity in statement rankings), while darker red indicates stronger negative correlation (greater divergence). The dendrogram highlights clustering of perspectives, illustrating that *Environmental Defence* and *First Nations Restoration* perspectives are relatively aligned, whereas *Country Localism* exhibits the greatest difference from other perspectives.

Perspective influence on problem definition

After the Q sort, we fielded four binary A|B items to test whether the Q-mapped perspectives predict choices when framed as policy trade-offs, and to locate those choices in work on problem definition and the role of the state. Policy conflict often turns on how problems are defined and which causal stories are privileged.[22,23] Binary items are useful in this setting because they force prioritisation and can surface "protected" values that often resist compromise.[24,25] We therefore expected factors to diverge most on items that juxtapose alternative definitions of policy problems and competing roles for government. Concordance between factor loadings and A|B selections provides a simple convergent-validity check; discordance signals conditional or cross-pressured positions rather than noise. The items are stylised dilemmas, not intensity scales, and they complement Q's own forced-choice structure by testing

behaviour under hard constraints.

We examined the following four issues related to water policy problem definition and government responses in the Murray-Darling Basin:

- Do you think the Murray Darling Basin is facing (A) an urgent ecological crisis needing quick action, or (B) is the environment resilient and all we need is time and careful management?
- Should (A) governments continue to make big reforms to how water is managed in the Basin, or (B) should they focus on getting the policy settings right and leaving people to work within those settings?
- Do you think (A) the balance of sharing water between different uses and different parts of the Basin is basically right, or (B) is major rebalancing required?
- When assessing the health of the Basin, do you (A) put more trust in scientific studies, or (B) the experiences and perceptions of yourself and your neighbours?

Responses to the binary A|B questions varied significantly across participants whose responses aligned significantly with one of the five Q study perspectives. A small number of participants rejected the forced choice approach and chose both options or refused to make a choice between them, these participants were removed from the analysis below. Chi-square tests* of association between responses to the four A|B questions and Q perspectives revealed statistically significant differences ($p < 0.01$ in all cases, see Table 2). Across the four A|B items, Cramér's V ranged from 0.49 to 0.60, indicating strong associations between viewpoint and choice. In practical terms, responses on these items were highly predictable from a participant's Q perspective, with most perspectives showing a clear majority—or unanimity—for one option. This shows that perspective differences correspond to differences in understanding or framing of the policy problems, the role of government and assessments of appropriate knowledge for policymaking. These results provide strong validation for the Q results and suggest that Q successfully identified stable and meaningful perspectives.

Figure 2 (p.15) shows the specific response patterns for each perspective. Differences in response pattern across perspectives on most questions are stark—some perspectives provide uniform agreement with a single response. For example, Country Localism is exclusively linked to a view that the environment in the Murray-Darling Basin is "resilient and all we need is time and careful management". Similarly, all Environmental Defence participants "put more trust in scientific studies" when assessing the health of the Basin. Participants from some perspectives are more divided in their responses to some questions (e.g. the 50/50 split in Plan Pragmatism when responding to the balance of water sharing). However, overall there are strong majorities for each perspective to each question and these differ between perspectives. The results underscore a fundamental challenge for policymakers: different groups do not merely disagree on solutions— they understand and frame the underlying problems and potential policy responses differently. This echoes a classic insight from political science that intractable policy conflicts often stem from divergent problem framings.[1–3] These responses show that such framing differences align with deeper worldviews, making consensus on even basic policy goals unlikely without deliberate efforts to surface and address these differences.

*A Monte Carlo simulation ($B = 100{,}000$) was used for the chi-squared tests because several expected cell frequencies were low, making the standard chi-squared test assumptions unreliable. The Monte Carlo method avoids this issue by simulating a large number of random tables based on observed data, thereby providing a robust estimate of statistical significance without relying on assumptions of large sample sizes or expected frequencies.

Table 2: Pearson χ^2 tests (5×2; df = 4) with Monte-Carlo p-values and Holm adjustment. Bias corrected Cramér's V summarises effect size.

	Question	χ^2	df	n	Sig	V
Q1	Do you think the Murray Darling Basin is facing (A) an urgent ecological crisis needing quick action, or (B) is the environment resilient and all we need is time and careful management?	23.39	4	66	p < 0.001	0.60
Q2	Should (A) governments continue to make big reforms to how water is managed in the Basin, or (B) should they focus on getting the policy settings right and leaving people to work within those settings?	15.59	4	66	p < 0.01	0.49
Q3	Do you think (A) the balance of sharing water between different uses and different parts of the Basin is basically right, or (B) is major rebalancing required?	17.04	4	67	p < 0.01	0.50
Q4	When assessing the health of the Basin, do you (A) put more trust in scientific studies, or (B) the experiences and perceptions of yourself and your neighbours?	21.76	4	60	p < 0.001	0.60

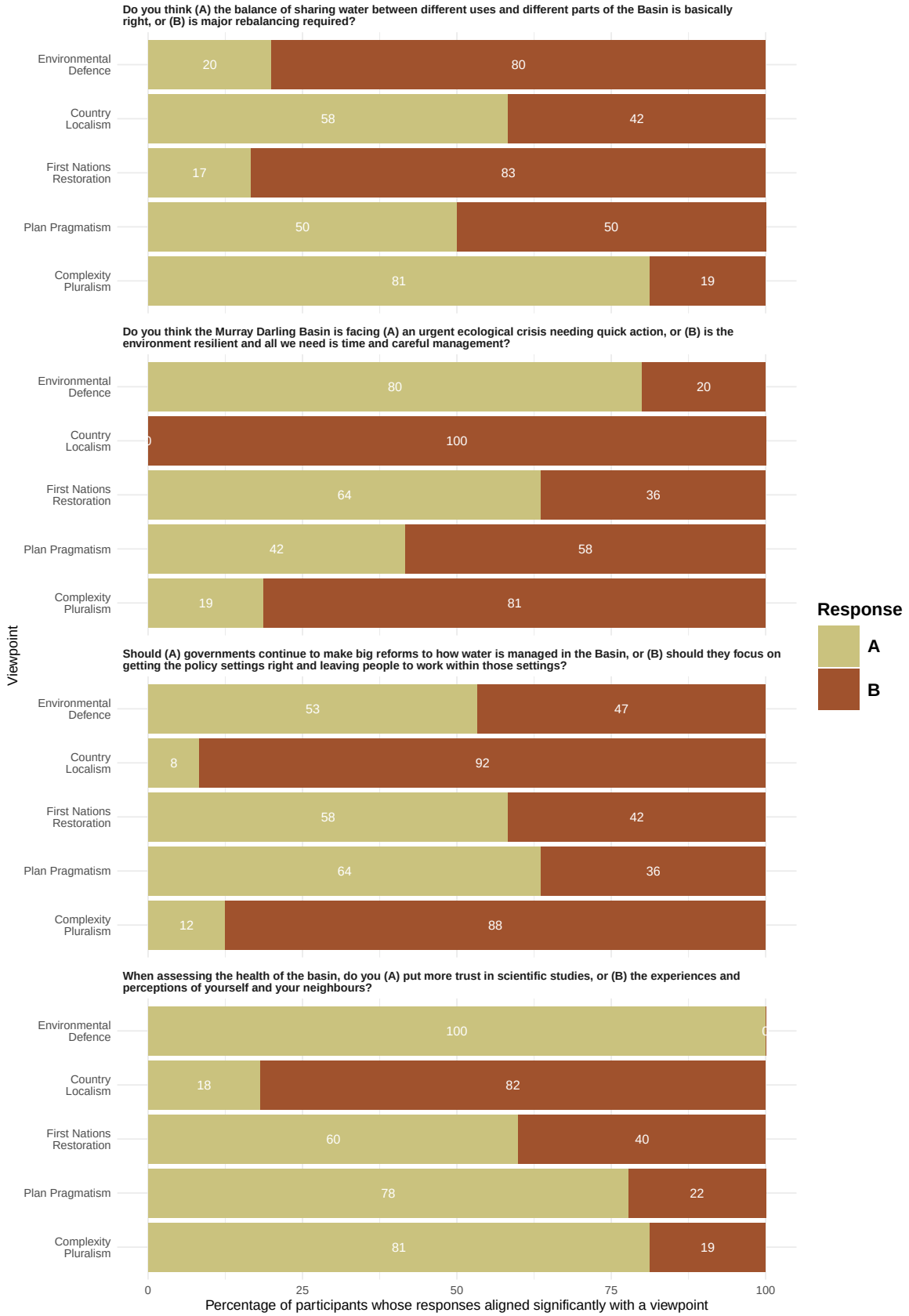

Figure 2: Crosstab of Q study perspectives and additional question responses

Equity, fairness and justice across perspectives

In this section, we focus on how the five perspectives make sense of the terms equity, fairness and justice specifically. To do this we draw on the results of the perspective mapping and the qualitative data collected through interviews and additional survey questions. Consistent with our findings in an analysis of submissions, Hansard and social media,[4] no unambiguous meaning was associated with the terms "equity", "fairness" or "justice" in relation to Basin water policy in any of the perspectives and there was significant overlap in the way the terms were understood and used.

In dictionaries and common speech, the terms equity, fairness, and justice are often defined in relation to one another: equity is defined in terms of fairness and justice; fairness in terms of justice and what is right; and justice in terms of equity and fairness. This circularity makes it difficult to pin down any of the concepts in isolation in everyday language. However, this conceptual entanglement is evident even in foundational philosophical texts. John Rawls opens *A Theory of Justice*, one of the twentieth century's most influential accounts of justice, with his intention to "present the main idea of justice as fairness."[4,26]

Fairness was referred to more frequently than equity or justice. While recognised as subjective across all perspectives, fairness was usually linked with discussions about balancing competing interests and accepting differential burdens from water reforms. Environmental Defence and Complexity Pluralism emphasised that fairness inherently involves trade-offs and accepting burdens on certain groups, particularly those who have historically benefited from disproportionate access to water resources. For Environmental Defence, fairness includes non-human entities and future generations as legitimate stakeholders, demanding serious consideration of the the non-human and future generations in decision-making.

Plan Pragmatism and Complexity Pluralism centre fairness around a more procedural view. Fairness from these perspectives demands a sense of balance, advocating a careful negotiation among diverse stakeholder interests rather than equality in treatment. These perspectives see fairness as achievable through transparent, inclusive political processes rather than predetermined outcomes or simplistic equality measures. Conversely, Country Localism views fairness strictly as equal treatment, strongly opposing differentiated approaches, especially regarding preferential treatment for First Nations communities or environmental considerations, which they perceive as divisive or unfairly advantageous to certain groups. Country Localism uniquely argues that fairness demands the removal of politics from decision-making to prevent bias and distortion by distant bureaucratic or urban political interests.

Equity was defined differently across and within the perspectives, with no single definition emerging. Participants from Environmental Defence, Plan Pragmatism, and Complexity Pluralism tended to view equity not as equal treatment, but with reference to proportionality—recognising differing needs, contexts, and historical advantages or disadvantages. For instance, Complexity Pluralism asserts that diverse communities and states have fundamentally different, values, circumstances and water requirements, which must be taken into account in decisionmaking.

First Nations Restoration presents a more distinct understanding of equity linked to ideas of restorative justice to address historical injustices experienced by Aboriginal communities. Those most closely associated with this perspective argued that current inequities required corrective measures to recognise First Nations' unique relationship to the lands and waters of the Basin. In contrast, Country Localism strongly aligns equity with equal treatment, rejecting special provisions for particular groups—especially First Nations—as inherently unfair. This perspective insists equity should mean the same rules and standards for all groups.

Justice was the least explicitly discussed term among participants, typically emerging indirectly through critiques of past actions or current policy outcomes. For Environmental Defence and First Nations Restoration, justice prominently involves the restorative recognition of historical injustices toward Aboriginal communities. First Nations Restoration highlights continuing injustices rooted in colonisation and dispossession, framing water access as integral to broader restorative justice efforts. Conversely, Environmental Defence sees some recent water policies as steps towards redressing historical injustices, though imperfect in their implementation.

All perspectives agree to varying degrees that it is unjust to single out irrigators as solely responsible for unfair water use, since governments historically enabled this through policy and licensing. However, perspectives diverge notably regarding the Basin Plan itself. Country Localism and First Nations Restoration agree that the Plan itself is fundamentally unjust—though for different reasons—whereas Environmental Defence and Plan Pragmatism maintain that the Plan's intentions are broadly just but undermined by poor implementation. This indicates that conceptualisations of justice among these stakeholders often hinge upon the perceived legitimacy and fairness of policy processes, as much as upon outcomes delivered.

Where do views diverge and where is the common ground?

Across the five perspectives, only one statement met Q's formal consensus criterion (no significant distinctions between any pair of factors): "Fair water management in the Basin needs to account for recreational river activities." It was placed near the middle across all perspectives, so it signals low salience rather than shared commitment. More generally, no statement drew consistent endorsement across all five perspectives, reflecting value diversity among Basin stakeholders.

To identify practical areas of convergence and contention, we complemented the standard Q consensus test with an ordinal dispersion measure. For each statement, we computed the average pairwise absolute difference (APD) in ranking across the five perspectives. APD, equivalent to the Gini mean difference, treats ranks as ordinal, requires no distributional assumptions, handles ties from the forced distribution, and represents the expected gap between two randomly chosen perspectives. Lower APD indicates more stable ordering across perspectives; higher APD marks sharper disagreement. We report APD in the main tables and use it to order statements. As a sensitivity check, APD was highly correlated with the standard deviation in our data; we retain APD because it aligns with the ordinal scale. To avoid treating "shared neutrality" as agreement, we also note direction (whether placements sit above or below the neutral point). The aim is pragmatic: to flag lower-contestation items as candidates for collaborative dialogue and to identify polarising items that may need reframing or sequencing in policy design.

Understanding where stakeholder perspectives align and where they diverge is an important consideration for policymakers seeking to design water policy that is not only technically sound, but also perceived as legitimate and fair. While many issues shape effective policy—such as scientific evidence, legal obligations, and institutional constraints—recognising patterns of convergence and disagreement across different stakeholder perspectives can help identify where reform efforts may be more readily accepted, and where greater care, dialogue, or deliberation may be needed. Mapping these patterns does not resolve conflict, but it can clarify where common ground exists and where contested values or framings may hinder progress. Statements evoking strong reactions from participants are also those where perspectives diverge most sharply. These points of divergence centre on foundational policy questions for governments in the 2020s: the fairness of government buybacks, the recognition of Indigenous water rights, the distributional impacts of reform on agricultural communities, and the broader legitimacy of the Basin Plan itself.

Table 3 presents the ten statements with the lowest APD, indicating the most aligned rankings across all five perspectives. These include general support for environmental responsibility, intergenerational fairness, and transparency in water markets. These issues may represent shared principles around which constructive engagement can be built. However, care must be taken to consider how different stakeholder groups conceptualise each of these issues to distinguish substantive disagreement from mere rhetorical conflict.

Table 3: Top ten statements by APD

Statement	Alignment	APD	Rank range
Fair water management in the Basin needs to account for recreational river activities.	neutral	1.4	18–21
I accept that water is needed for crops but it is also needed to sustain life…the life of the people, the plants, and the animals.	shared agreement	3.8	4–12
It is only fair to ask those who benefit from water reforms and infrastructure investment to contribute water for the environment.	shared dis-agreement	4.8	23–34
Water users need access to clear, relevant and consistent information to make well-informed decisions and operate equitably in the water market.	shared agreement	5.2	8–20
We need to protect and restore the environment to be fair to future generations.	shared agreement	5.8	1–14
Equity and the needs of the marginalised and excluded are more important in water policy than efficiency and highest-value use.	disagreement	6.8	14–30
Graziers have continually been made to subsidise the irrigation industry and they cannot afford to do so any longer.	shared dis-agreement	7.2	22–37
Working to find areas of common ground between different water users (including the environment) is a good way to identify fair outcomes.	disagreement	7.4	6–24
Irrigators are willing to accept reduced water availability; as long as they get their fair share like others have.	disagreement	7.6	18–34
It is not the role of the market to ensure distribution of wealth is equitable.	disagreement	8.0	14–31

*perspective ranking for statements ranges from 1 (most agreed) to 41 (most disagreed). The range here shows the lowest and highest ranking provided across all five perspectives. Small ranges show views clustered around a point, e.g. all perspectives rank the first statement near the middle (21).

In contrast, Table 4 presents the ten statements with the highest APD, where views are most sharply divided. These include conflicting perspectives on Indigenous water rights, perceptions of historical injustice, and the fairness of government interventions, particularly water buybacks and the legitimacy of the Basin Plan. These statements suggest policy issues where policymakers face substantial challenges in reconciling deeply entrenched differences.

Table 4: Bottom ten statements by APD

Statement	Alignment	APD	Rank range
The irrigation industry needs to give back some of what was unjustly taken in the first place.	disagreement	17.2	9–39
Addressing conflicting demands for water is a complex problem and there are no simple solutions to make outcomes fairer.	disagreement	17.4	1–33
Government-ordered water buybacks damage communities and are unfair.	disagreement	17.6	2–40
Our culture and people are dying. The off-stream billabongs, their flora and fauna are dying, all due to the excessive upstream water take. This is unfair.	disagreement	18.0	2–39
The Basin Plan must deliver positive and equitable Aboriginal benefits, alongside the traditional triple bottom line of social, environmental and economic outcomes.	disagreement	18.0	1–32
Murray-Darling Basin water was always Aboriginal water and any additional water in the Basin should be put in the Aboriginal cultural water bucket.	disagreement	18.2	5–41
The Basin Plan offers the fairest approach to the provision of water to all communities in the Basin including the environment.	disagreement	18.6	4–37
The Basin Plan is unjust and defective. It has failed to meet its own objectives in terms of equitable resource sharing between all stakeholders.	disagreement	19.8	5–41
First Nations people and organisations should have access to water for economic purposes to alleviate some of the disadvantage that they experience.	disagreement	20.8	5–40
Treating First Nations peoples differently and enshrining their rights is unnecessary and unfair to all other Australians.	disagreement	21.0	5–41

*perspective ranking for statements ranges from 1 (most agreed) to 41 (most disagreed)

Alignment and divergence across perspectives

Understanding how different stakeholder perspectives align or diverge on individual Q sort statements helps to clarify the political and normative space within which policymaking operates. Sixteen of the 41 statements sit in the top quintile of at least one perspective's ranking and the bottom quintile of another's. This is a significant proportion, around 40%, of statements with strong disagreement. There is significant, but not complete, overlap with the results of the APD approach used above and the statements in Table 5 below. This set of high divergence statements also cover many of the same issues of policy importance to governments identified by the APD ranking.

Table 5: Statements in at least one perspective top quintile and at least another perspective bottom quintile

Statement
Government-ordered water buybacks damage communities and are unfair.
Fairness demands a greater appreciation of the hardships suffered by small, water-dependent upstream communities.
We will continue to see policy that is grossly inequitable while the states remain responsible for implementing the Basin Plan on the ground.
The Basin Plan offers the fairest approach to the provision of water to all communities in the Basin including the environment.
The Basin Plan was hijacked for political and personal gain.
Murray-Darling Basin water was always Aboriginal water and any additional water in the Basin should be put in the Aboriginal cultural water bucket.
The Basin Plan is unjust and defective. It has failed to meet its own objectives in terms of equitable resource sharing between all stakeholders.
Lobbyists have unfair access to consultation and engagement with decision-makers to the detriment of other stakeholders.
Policies that address climate change must not put an unfair burden on agriculture.
Treating Indigenous peoples differently and enshrining their rights is unnecessary and unfair to all other Australians.
The original injustice of dispossession of Aboriginal People of their lands has become further entrenched with successive water reforms.
Irrigators have borne the brunt of water reform. They have experienced disproportionate and unfair impacts.
First Nations people and organisations should have access to water for economic purposes to alleviate some of the disadvantage that they experience.
Buybacks are the fairest way to recover real water for environmental benefit.
Addressing conflicting demands for water is a complex problem and there are no simple solutions to make outcomes fairer.
Our culture and people are dying. The off-stream billabongs, their flora and fauna are dying, all due to the excessive upstream water take. This is unfair.

While the APD rankings above provide a summary measure of divergence across all five Q methodology perspectives, visualising the presence or absence of alignment on individual statements offers a complementary perspective. The two UpSet plots on the following pages provide a more granular view of where perspectives are aligned or diverge on their ranking of statements (see Figure 3 on page 22 and Figure 4 on page 23 below). They also reveal where a subset of perspectives broadly agree, or disagree, on the ranking of a statement.

An UpSet plot visualises the intersections of multiple sets; it is similar to a Venn diagram but more legible when there are many intersections. In our case, the plots show where each perspective's set of statement rankings intersects with other perspectives' ranking sets in the top (most agree) or bottom (most disagree) quintile of the ranges of statement rankings (the top quintile contains 8 statements and the bottom, 9). Each horizontal row contains a statement or group of statements. The coloured dots indicate which perspectives included those statements in their top or bottom quintile.

- A single dot in a row shows that only one perspective ranked the statement/s in its top or bottom quintile
- A connected sequence of dots (linked by lines) indicates that multiple perspectives ranked the statement in their top or bottom quintiles
- Statements with many connected dots reflect broader alignment across perspectives, while those with isolated dots show rankings unique to one or two perspectives.

This format reveals patterns of alignment and divergence across perspectives on issues participants cared most about. For policymakers, these patterns help distinguish between issues that may provide opportunities for reframing, coalition-building or targeted engagement, and those that reflect deeper value conflicts requiring longer-term consideration.

The five perspectives share some perspectives. Country Localism is the most distinct perspective at the agree end of the scale, with the least in common with other views, followed by First Nations Restoration. The other three perspectives share a larger number of perspectives, although each of the remaining three have statements in their top quintile not shared with others. Environmental Defence and Complexity Pluralism have the most distinct bottom quintile rankings. Overall, the UpSet plots provide further confirmation of the areas of deep disagreement between perspectives.

Note that the lack of an intersection on a statement in these plots does not mean that the perspectives do not broadly agree or disagree with a statement, but that the strength of their agreement/disagreement is not enough for the statement to be ranked at the ends of the distribution shown here. For example, Complexity Pluralism is the only perspective that strongly agrees that "working to find areas of common ground between different water users (including the environment) is a good way to identify fair outcomes." However, Environmental Defence, Country Localism and Complexity Pluralism all rank this statement in their second quintile. First Nations Restoration is the only perspective that disagrees with this statement.

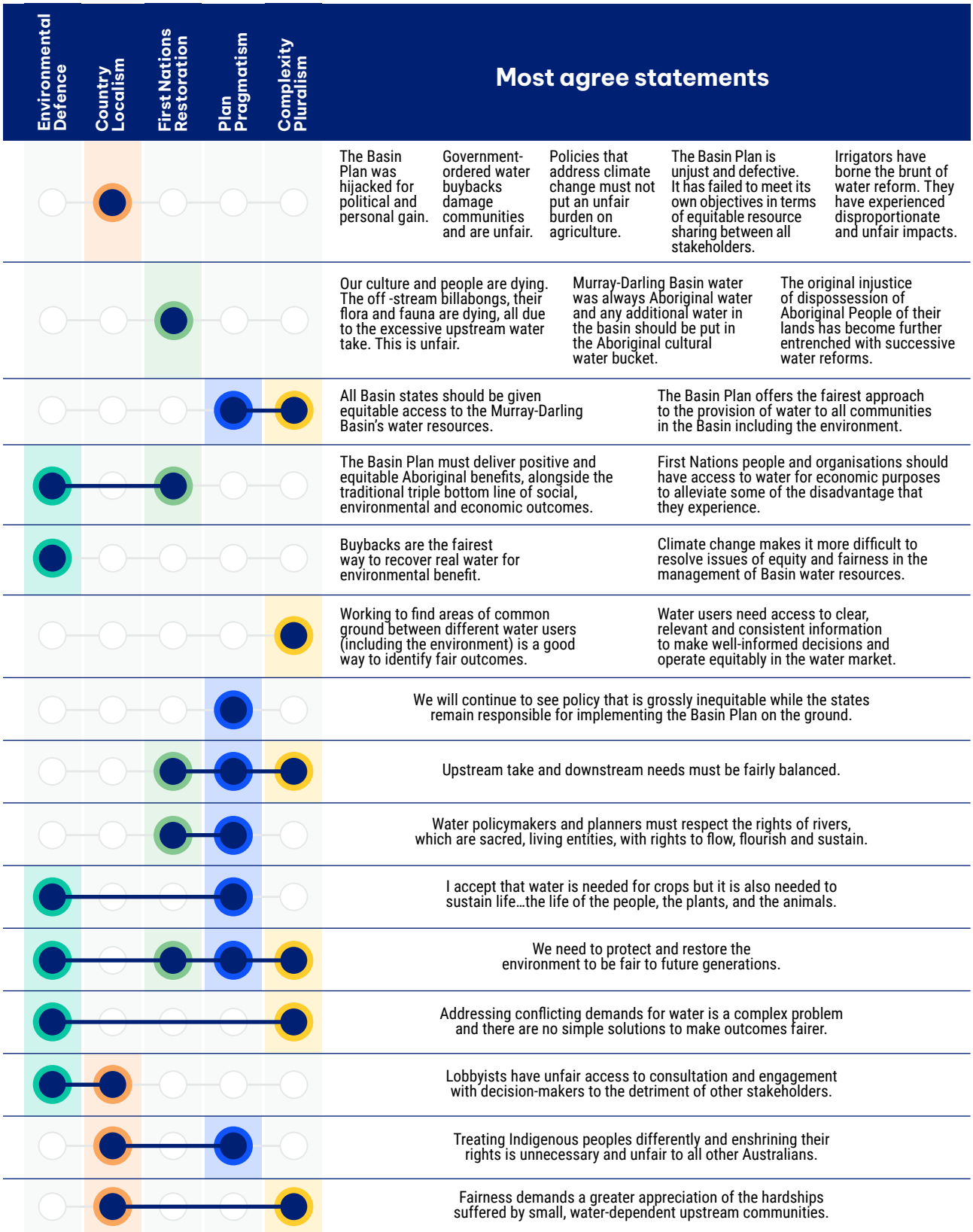

Figure 3: UpSet Plot of top quintile ranked statements

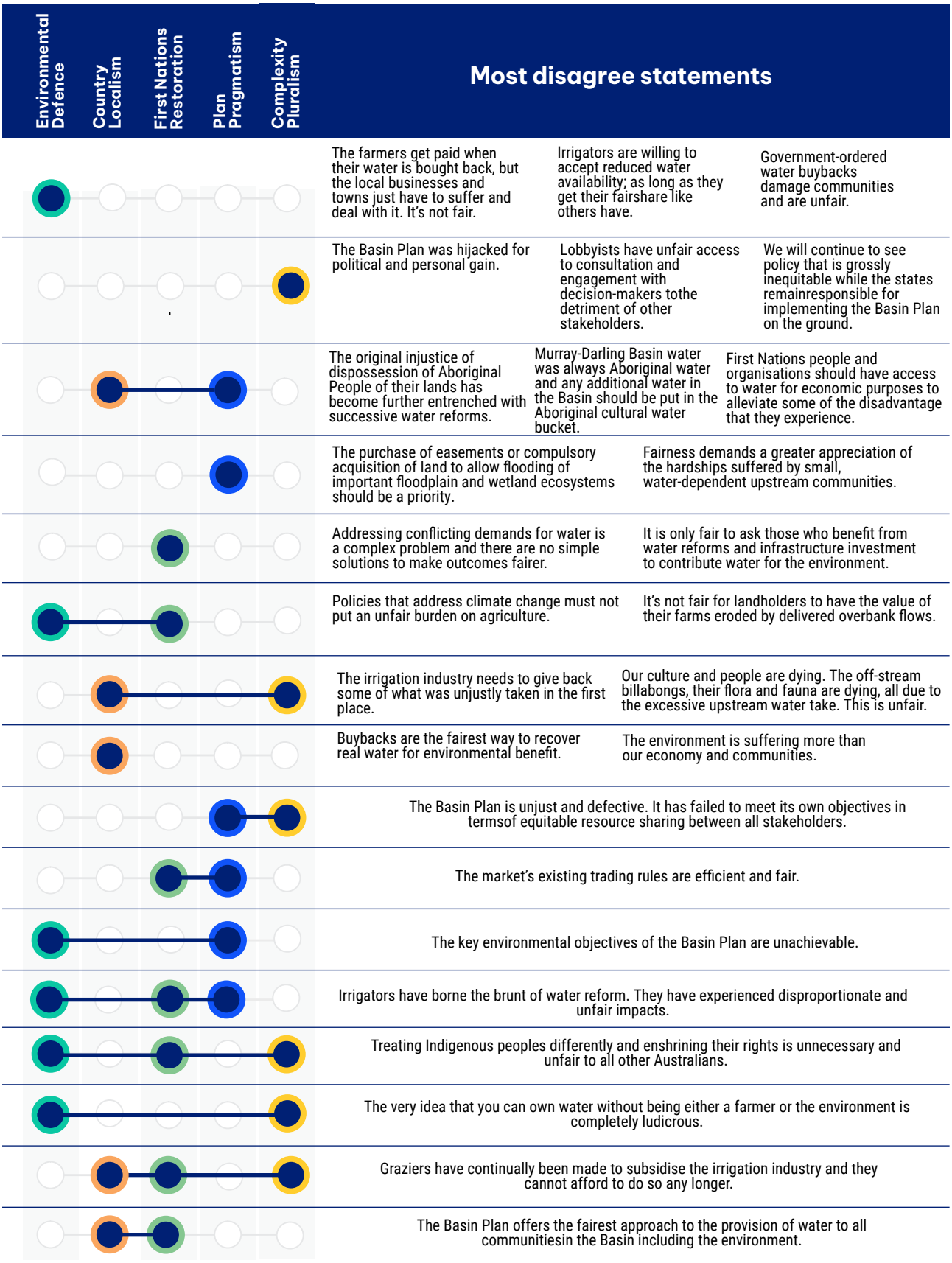

Figure 4: UpSet Plot of bottom quintile ranked statements

What does this mean for policymakers?

The results of this Q study underscore significant challenges for policymakers seeking workable solutions around Murray-Darling Basin water governance. The findings reveal deep divergences in stakeholder perspectives, particularly regarding the fairness of water buybacks, recognition of First Nations water rights, the legitimacy of the Basin Plan, and the distributional impacts of water reform. These tensions reflect not simply conflicting interests but very different underlying values and narrative framings that cannot be easily reconciled through technical or managerial solutions alone.

However, the study also identifies issues where stakeholders demonstrate comparatively consistent perspectives. These points of relative alignment, such as support for environmental sustainability, transparency in water markets, and acknowledgement of complex policy trade-offs, represent important entry points for future collaborative policy dialogue. While these areas of partial alignment may not represent consensus, they nonetheless provide common reference points around which policy discussions and deliberations might productively begin. Recognising these shared principles could help policymakers frame initiatives in terms that resonate more broadly across diverse stakeholder groups.

Policymakers may be able to leverage issues with lower divergence as a foundation for public and stakeholder engagement on developing policy, with the acknowledgment and understanding that fundamental differences in values and worldviews may persist. Having this deeper level of understanding **before** embarking on policy development or community engagement processes is essential, because it provides an opportunity for people to feel listened to, and it can help decision makers understand the if, how, where and when of planning any kind of public or stakeholder participation.[27]

Additionally, the intersection analysis of top- and bottom-quintile rankings reveals that a substantial proportion of statements (around 40%) are simultaneously seen as strongly positive by some perspectives and strongly negative by others. These statements represent particularly polarised topics and highlight where deliberative policy processes and careful stakeholder engagement are likely to be essential if trust in government is to be regained. Policymakers should anticipate that reform measures addressing these highly divisive statements will require extensive consultation, participatory processes, and potentially incremental or phased approaches that enable careful navigation of competing perspectives. The polarised topics parallel many of the issues identified as high salience and with diverging perspectives in other Watertrust research.[4]

Overall, these findings do not provide easy solutions but offer valuable guidance for policymakers. By clearly mapping where stakeholders agree, disagree, or hold ambivalent views, policymakers are better equipped to anticipate and respond to stakeholder responses to major policy choices. The breadth of the divide on some issues suggests likely value in governments increasing their deliberative capacity and the potential for deliberation in policy processes. Although Q methodology cannot quantify the prevalence of perspectives in broader populations, the insights from Watertrust's representative population survey with Ipsos Australia does this and should be read in parallel with this study.[28] Deliberative exercises aimed at exploring and clarifying public preferences around equity, fairness, and justice in the Murray-Darling Basin, can help policymakers understand not only the structure of stakeholder perspectives but also how these perspectives might shape responses to specific policy initiatives, facilitating more legitimate and effective water governance.

Appendix A: About the research

Watertrust led the design and delivery of a Q Methodology research study into perceptions of equity, fairness and justice in water policy and management in the Murray-Darling Basin. The study was undertaken with researchers specialising in Q Methodology from the University of Canberra, skilled interviewers from Paper Giant and Ipsos Aboriginal and Torres Strait Islander Research Unit (ATSIRU), and project management from Alluvium.

Table 6: Project team

Role	Team members
Project design	Lucy Parry (University of Canberra) and Rod Marsh (Watertrust) led the design; Simon Niemeyer and John Dryzek (University of Canberra) advised on design
Project management	Amanda Wealands (Alluvium)
Recruitment	Amanda Wealands managed the recruitment process; Corey Lawton (Alluvium) provided support; Michelle Ramsay led the recruitment across the Basin; Watertrust and Alluvium provided assistance with other recruitment; Sharon Barnes, Michael Barnes and Stevo Smith (Ipsos ATSIRU) recruited the majority of Aboriginal participants
Survey instrument (concourse) development	Lucy Parry, Rod Marsh, Colby Lawton, Amanda Wealands with review provided by John Dryzek and Simon Niemeyer from the University of Canberra and Nick Barry from La Trobe University; much of the concourse was sourced from research undertaken by Sam Hames (UQ) and Rod Marsh.[4]
Perspective mapping (Q) interviews	Ian Pollock and Niels Wouters (Paper Giant) undertook the perspective mapping (Q) interviews for non-Aboriginal participants; Michael Barnes and Stevo Smith undertook the perspective mapping (Q) interviews for Aboriginal participants; Lucy Parry provided training in Q interviewing for Ian Pollock and Niels Wouters; Ian Pollock, Niels Wouters and Lucy Parry trained Michael Barnes and Stevo Smith.
Analysis	Lucy Parry and Rod Marsh
Report drafting	Lucy Parry and Rod Marsh
Report review	Simon Niemeyer, Kane Aldridge, Geoff Syme

The research had two goals:

1. To better understand different perspectives on equity, fairness and justice in the governance and management of water in the Murray-Darling Basin.
2. To inform the design of a representative population-scale survey of Australians from the Basin jurisdictions on perspectives on equity, fairness and justice in the governance and management of water in Australia.

What is Q methodology

Q methodology (hereafter Q method, Q) is a systematic approach to studying subjective perspectives on a topic that combines quantitative and qualitative techniques. Although originating in psychology, Q is now used across many disciplines, especially in social sciences and environmental sciences.[29,30] The underlying logic of Q flips survey logic on its head. In a standard survey, a large number of respondents might be asked to give a single answer to a single question. In Q, a smaller group of participants answers multiple questions through their ranking of the statements.[31] In a standard survey, the scale is often determined by the researcher alone (e.g. likert scale). While in Q, participants create their own meaning by comparing the statements relative to each other and ranking them accordingly into a configuration that makes sense to them. Through this process, subjectivity is made "operant and observable".[32,33] The resulting configuration of a participant's perspective illustrates their holistic subject-position on a topic. In practice, Q involves eliciting and analysing the perspectives of participants on a topic that is relevant to them. Participants must sort through and rank a set of items on a matrix with a gradient from "most agree" to "most disagree" (or similar wording). These items can be images but are most commonly written statements. The precise gradient of the matrix can vary but it is usually an inverted forced distribution (see Figure 5).

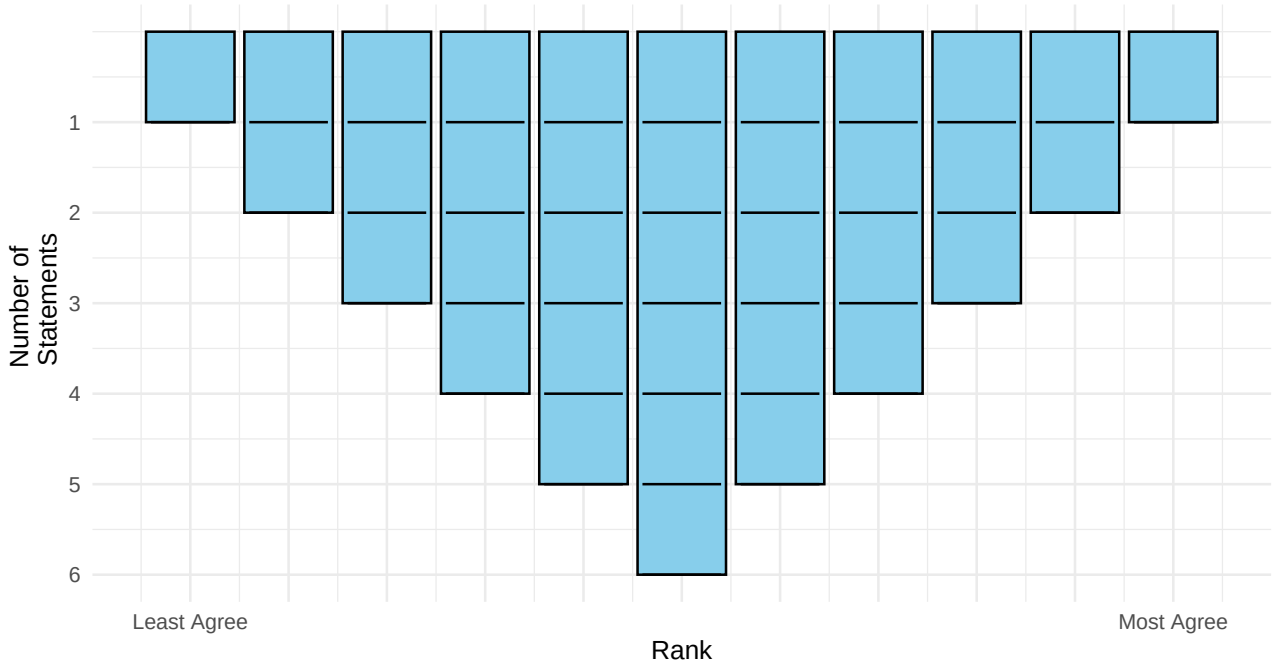

Figure 5: Q forced distribution

Participants in a Q study are the variables and are chosen carefully and strategically. Participants are not intended to be representative of a broader population, rather it is the Q statements that fulfil this role. Diversity in participants is needed only to ensure diversity of perspectives, rather than representative demographics.[34] Since generalisability to a broader population is not usually sought in Q, participant numbers are often relatively small, but sufficient to identify and understand the existence of shared perspectives.[34]Participants normally have some relationship to the topic at hand; they are often stakeholders or at least affected parties, rather than a randomly selected group. The purposive selection aims to find participants "whose perspective matters in relation to the subject at hand"[34] rather than a random or opportunistic sample seeking descriptive representation. To this end, Watertrust started with eight key stakeholder categories that had been identified through analysis of stakeholder submissions to various water reform-related inquiries through the last two decades (see Participants and recruitment).

Conduct of the perspective mapping study

In this study, 67 participants ranked 41 statements during a perspective mapping (Q sort) interview with trained interviewers. The set of statements was designed to represent a full range of views on equity, fairness, and justice in water policy and management of the Murray–Darling Basin. Statements were drawn from over 2200 public submissions to water inquiries between 2015 and 2023. The research team went through an iterative process of selecting and refining potential statements and piloting in order to reach the final set of 41 statements. The statements were not statements of fact, but subjective views. Some statements were edited for clarity (see Table 8 for the full set of statements).

The study was conducted online using a specialist software for Q methodology. Participants were guided by interviewers from Paper Giant or Ipsos ATSIRU trained in Q sort interviewing in a Google Meet call as they completed the study and took part in an interview afterwards. Interviewers were thus on hand to support participants through the process which is unfamiliar to most people, and gather additional data to support interpretation. Interviewers asked participants to explain their reasoning behind the statement ranking, and participants could provide extra feedback if they wanted. Interviewers took detailed notes throughout the process. First Nations participants were recruited and interviewed by First Nations researchers from Ipsos ATSIRU.

The data were analysed using PQMethod 2.35 (software designed for Q) and in R 4.4.0. Principal Component Analysis (PCA) with varimax rotation was used to identify potential perspectives. PCA is often used in Q because the core analytical goal is identifying patterns of similarity between participants' entire response profiles, rather than uncovering underlying latent variables explaining correlations between individual questions. PCA treats each participant's responses as a distinct profile to be clustered, making it more suitable for Q's focus on grouping participants holistically by their perspectives, rather than grouping statements or items according to latent constructs. Q's analysis can similarly be considered an "inverted" analytical approach compared to traditional factor analysis used in survey research. Whereas conventional factor analysis groups variables (e.g., survey questions) according to latent constructs, PCA flips this relationship, grouping and summarising respondents or observations based on their similar response patterns across multiple variables. In other words, Q clusters individuals according to how similarly they respond, rather than clustering questions based on similarity in how they are answered. Analysis and interpretation in Q relies on both PCA as well as qualitative data and judgement to decide how many groups or "factors" should be retained.[34]

Development of the concourse

In Q methodology, the "concourse" refers to the range of material used to develop the statements that participants will sort. The concourse should represent the full spectrum of views on the topic of study, to help ensure that the final set of statements are broadly representative and balanced.[34] The concourse can be drawn from a variety of sources including interviews, media articles, academic literature or reports. It's important to note that the concourse, and the statements, are not intended to be statements of fact; they should represent different subjective views on the topic.[35]

For our study, the concourse was comprised of over 2200 public submissions to water inquiries between 2015 and 2023 with a keyword search for terms related to equity, fairness and justice.

Beginning from 3238 extracts from the public submissions using the keyword search, 595 were selected. Each statement was assigned an ID number. The initial criteria for selecting relevant statements were:

- Universal statements about meaning and definition of equity, justice and fairness OR
- Situational/specific statements about the concepts based on evidence or experience.

Statements about the past, present and possible futures were all included at this stage. Statements were excluded based on the following:

- Statements using the keyword in a non-relevant way e.g. use of 'just' as 'only', financial 'equity'
- Highly technical statements or language such that understanding them would require very specific prior knowledge that not all participants will have
- Statements referencing multiple policy instruments or pieces of legislation, such that they could not be broken down into a clear statement on a single point. Where possible, these statements were broken down into constituent parts.

Following the initial extraction, the 595 statements were grouped into primary and secondary themes that were identified inductively. This resulted in 100 secondary themes. This process was carried out by an expert in Q method, with little to no knowledge of the subject matter. In the next step, subject experts from Watertrust and Alluvium selected the statements that they felt were especially relevant to the debates on water policy in the Basin and the aims of the study, based on their knowledge and understanding. They selected 1-2 statements from most of the secondary themes, resulting in 70 statements. A political philosopher helped ensure the statements were broadly representative of different philosophical positions on equity fairness and justice.

From here, the entire research team reviewed and commented on the statements with suggestions and the following steps reduced the number of candidate statements:

- A count of themes was taken to review the coverage of statements across themes
- Statements were matched to a conceptual map prepared with the political philosopher and designed to ensure that all the dimensions of the key concepts were covered
- All statements were coded to background cohort based on the eight categories used for recruitment to ensure a balance of statements from submissions from each category.

Following these steps, the set of statements was refined to 51, with some additional statements added from media and online discussions where gaps were identified. This set of statements was then piloted with a group of stakeholders, trusted contacts and colleagues with in-depth knowledge of the water sector and debates in the Basin.

Based on feedback from the pilot, statements were further adapted. Pilot feedback highlighted where statements were unclear, or where any perspectives seemed to be missing or overrepresented. The final number of statements was reduced to 41 following the pilot feedback. A full list of statements is at Table 8.

Participants and recruitment

Participants in a Q study are the variables and are selected purposively for their likely diversity in views on the topic. Since generalisability to a broader population is not usually sought in Q, participant numbers are often relatively small, but sufficient to identify and understand the existence of shared perspectives.[34] This is not to say that certain categories or cohorts of people are irrelevant in Q—far from it. However, the sample requires diversity in terms of the subjective positions participants are likely to have, informed by their backgrounds if relevant.[36] Sometimes, traditional demographic categories might be relevant to assist in ensuring perspective diversity. Evidently, geographic location would be an important diversity criterion for this study because locations throughout the Basin experience different effects of different water policies and reform. We specifically aimed for diversity of geographical location, including both northern and southern basin divisions as well as the Australian Bureau of Statistics' remoteness structures in our selection choices. However, we were not aware of any evidence suggesting that gender or age inform differential experiences and did not specifically control for these variables.

We started with eight key stakeholder categories that had been identified through analysis of stakeholder submissions to various water reform-related inquiries through the last two decades. These eight categories include:

1. Agriculture—individuals or representative groups including irrigators, dryland famres, floodplain graziers, representative bodies and irrigation scheme managers.
2. Research—any researcher focussing on Basin water management (e.g., university researchers and employees, CSIRO, academies, etc.)
3. First Nations—First Nations individuals, groups or representative organisations
4. Environment—environmental interests, including environmental groups/NGOs and individuals with environmental views
5. Regional—regional interests, including organisations that represent regional Australia, regional development organisations, tourism, sporting groups and individuals with deep regional ties
6. Resource managers—government-regulated water and catchments managers
7. Government—non-resource management public entities, including local government, departments and agencies and regulators
8. Non-consumptive commercial—commercial interests that are not consumptive water users or farmers (e.g., local and regional businesses, water traders, consulting firms).

We were assisted in our recruitment of First Nations participants by Ipsos's ATSIRU, which had extensive networks in the Basin. One member of our recruitment team lived in the northern Basin and had extensive agricultural and regional connections across the Basin. We also used Watertrust and Alluvium's networks of resource managers, researchers and government employees. To further aid in developing a more efficient study, we used the following three selection principles:

- Participants should be likely to have an awareness and a view on water policy issues (e.g., a participant with clear views on the Basin Plan is prioritised over one with low awareness and knowledge). This criterion could introduce bias by disproportionately representing strongly-held or activist perspectives; however, we aimed to control for such bias by prioritising ordinary individuals rather than organisational representatives, ensuring perspectives reflected genuine personal experiences rather than official positions.
- Participants should primarily be ordinary people rather than representatives of organisations that are more likely to repeat that organisation's stated policy opinions or perspectives during the exercise (e.g., we would recruit a cotton farmer not a senior representative of Cotton Australia).
- Participants do not need to occupy a single category and we included participants who crossed categories (e.g., a First Nations person who is also an employee of a local council).

The final Q study had 67 participants drawn from across the above eight categories using the three principles aiming to maximise geographical and likely perspective diversity. We did not specifically aim for diversity on other demographic factors. See Table 7 for a breakdown of participants.

Administering the sort

The Q sorts were administered using an online platform, Q-Assessor.[37] Participants undertook the sort in two phases. In the first phase, participants read each statement then dragged and dropped it into one of three boxes, indicating they generally agreed, disagreed, or neither strongly agreed nor disagreed with the statement. In the second phase, participants sorted the statements into a grid like that at Figure 5, first selecting the single statement they agreed with most strongly, followed by the statement they disagreed with most strongly, and then placing all other statements into the grid. Participants were able to review and revise their placements before marking their grids as complete. After the sort was complete, interviewers guided the participants through four additional questions, capturing the reasoning behind each answer. The additional questions are described at Perspective influence on problem definition (p. 12 above).

Table 7: Final Q sort participants

Location	#	Remoteness area description	#	Gender	#	Cohorts*	#
Northern Basin	27	Major Cities of Australia	18	Male	39	Agriculture	10
Southern Basin (inc Canberra)	29	Inner Regional Australia	22	Female	28	Environment	8
Major city	11	Outer Regional Australia	19			Government	9
		Remote Australia	4			Non-agriculture commercial	9
		Very Remote Australia	4			Regional	7
						Research	6
						Resource manager	6
						Floodplain grazier/cropper	4
						First Nations	8
Total	67		67		67		67

*Some participants could be classified into more than one cohort. Here they are counted based on our assessment of the cohort where they primarily belong.

Throughout the process, interviewers prompted participants to share their reasoning behind placing particular statements, and their reactions to the language of the statements. In cases where participants were uncertain of a statement's meaning, interviewers did not directly answer participants' questions, but encouraged them to share their thinking and interpretations out loud, as if they were encountering those statements in a newspaper or social media post. These direct quotes from participants formed a crucial qualitative data set to complement the Q sort data, and supported interpretation of participants' rankings.

Interviews were conducted remotely using the Google Meet video calling platform, usually in about 1 hour. However, some interviews took up to two hours. Participants were asked to share their screens with the interviewers during the sorting process, so that interviewers could support them more effectively. In a small number of sessions, participants needed extra time to accommodate issues with the accessibility of the Q sort platform, as they needed support to read the small text of the statements, or had trouble dragging and dropping the statements into the grid. While participants were instructed to join the call on a computer, some participants joined on tablets or smartphones, leading to difficulties with screen sharing or reading small text. Interviewers gave extra time and support as needed to enable participants to complete their Q sorts.

Q sort interviews with Aboriginal participants were conducted by Aboriginal researchers from the Ipsos ATSIRU. These sessions were also conducted remotely, except for one that was done in person, during which the researcher assisted the participant to complete the sort on the same online platform as other participants. After the initial factor analysis of the Q sort results showed that Indigenous participants formed a unique cluster, Paper Giant and Ipsos ATSIRU conducted additional 30-minute follow-up interviews with Indigenous participants, to gain a clearer understanding of the reasoning behind their positions. These follow-up interviews focused on reasoning behind their most-agreed and most-disagreed statements, and on statement 16, selected as one which was a differentiator between Environmental Defence and First Nations Restoration.

Along with the Q sort, each participant was asked a series of four A|B questions as follows:

1. "Do you think the Murray Darling Basin is facing (A) an urgent ecological crisis needing quick action, or (B) is the environment resilient and all we need is time and careful management?"
2. "Should (A) governments continue to make big reforms to how water is managed in the Basin, or (B) should they focus on getting the policy settings right and leaving people to work within those settings?"
3. "Do you think (A) the balance of sharing water between different uses and different parts of the Basin is basically right, or (B) is major rebalancing required?"
4. "When assessing the health of the basin, do you (A) put more trust in scientific studies, or (B) the experiences and perceptions of yourself and your neighbours?"

Further discussion of participants' responses to these A|B questions can be found at page 12 above.

Analysis

In Q methodology, the analytic logic is also inverted.[30] While surveys typically analyse variables conceived as questions, variables in Q are the Q sorts completed by participants.[38] Factor analysis in Q then identifies shared patterns across these variables in a "by-person" factor analysis.[39] The resulting factors "refer to *groups of people* that sorted the statements in a similar way" (emphasis in original).[40]

This is not to claim any superiority of either Q method or R-based surveys, but simply a point of departure to introduce Q. Q cannot do some of the things that survey researchers hope to achieve. It does not, for example, claim to represent the views of a broader group, or identify what kind of views certain groups have in a population.[41] Rather, Q can infer some generalisations about the resulting perspectives, their nature and substance.[42]

While their logics diverge, Q and surveys can be complementary. Some researchers have deployed Q alongside traditional survey techniques for various purposes.[43,44] Q can be used to identify perspectives, and surveys to test the presence and spread of these perspectives in a wider population. Q method findings can also be mapped onto survey questions on policy positions, to understand if and how policy preferences relate to participants' underlying value positions.[45–47] This approach was used by Watertrust with the Q study informing a larger, population-scale representative survey of over 3,500 people with Ipsos Australia.[28]

Participants' Q sorts were analysed using PQMethod 2.35 (software designed for Q methodology) and in R 4.4.0. Inverted factor analysis was used to identify potential perspectives. The factor array scores can be seen below at Table 8. Further qualitative analysis of perspectives was undertaken along with a close reading of the interview notes to develop the Detailed description of the five perspectives above. Additional analysis of the Q sorts and responses to A|B questions was undertaken in R to develop the results in Figures 1 (p.12), 2 (p.15), 3 (p. 22) and 4 (p. 23) as well as the results in Tables 2 (p.14, 3 (p.18, 4 (p.19 and 5 (p.20.

Table 8: Statements with factor array scores

#	Statement	Factor array scores				
		1	2	3	4	5
1	All Basin states should be given equitable access to the Murray-Darling Basin's water resources.	0	-1	+1	+4	+3
2	Government-ordered water buybacks damage communities and are unfair.	-4	+4	0	-2	0
3	Fairness demands a greater appreciation of the hardships suffered by small, water-dependent upstream communities.	0	+3	+1	-3	+4
4	The very idea that you can own water without being either a farmer or the environment is completely ludicrous.	-2	0	0	+2	-4
5	The market's existing trading rules are efficient and fair.	-2	+1	-4	-2	+2
6	Upstream take and downstream needs must be fairly balanced.	-1	+1	+2	+5	+4
7	The irrigation industry needs to give back some of what was unjustly taken in the first place.	+1	-3	+2	0	-4
8	The Basin Plan must deliver positive and equitable Aboriginal benefits, alongside the traditional triple bottom line of social, environmental and economic outcomes.	+4	-2	+5	-1	+1
9	We will continue to see policy that is grossly inequitable while the states remain responsible for implementing the Basin Plan on the ground.	-1	0	+1	+3	-3
10	We need to protect and restore the environment to be fair to future generations.	+5	+1	+3	+4	+3
11	Having different approaches to monitoring the extraction of water across the Basin is unfair and inequitable.	-2	+1	+1	+1	-1
12	The Basin Plan offers the fairest approach to the provision of water to all communities in the Basin including the environment.	0	-2	-3	+3	+2
13	It is not the role of the market to ensure distribution of wealth is equitable.	0	0	-2	+1	+1
14	I accept that water is needed for crops but it is also needed to sustain life...the life of the people, the plants, and the animals.	+3	+2	+1	+2	+2
15	The Basin Plan was hijacked for political and personal gain.	-1	+5	+2	+1	-2
16	Water policymakers and planners must respect the rights of rivers, which are sacred, living entities, with rights to flow, flourish and sustain.	+1	0	+4	+2	-1
17	The environment is suffering more than our economy and communities.	0	-3	+1	0	-1
18	Murray-Darling Basin water was always Aboriginal water and any additional water in the Basin should be put in the Aboriginal cultural water bucket.	0	-5	+3	-5	-2

Continued on next page...

#	Statement	Factor array scores				
		1	2	3	4	5
19	The Basin Plan is unjust and defective. It has failed to meet its own objectives in terms of equitable resource sharing between all stakeholders.	-1	+3	+2	-3	-5
20	Lobbyists have unfair access to consultation and engagement with decision-makers to the detriment of other stakeholders.	+2	+2	0	+1	-3
21	Equity and the needs of the marginalised and excluded are more important in water policy than efficiency and highest-value use.	+1	-1	-1	-1	-1
22	Policies that address climate change must not put an unfair burden on agriculture.	-3	+4	-3	0	+1
23	Treating Indigenous peoples differently and enshrining their rights is unnecessary and unfair to all other Australians.	-5	+2	-5	+3	-2
24	Graziers have continually been made to subsidise the irrigation industry and they cannot afford to do so any longer.	-1	-2	-2	0	-3
25	Water users need access to clear, relevant and consistent information to make well-informed decisions and operate equitably in the water market.	+2	+1	0	+2	+2
26	The original injustice of dispossession of Aboriginal People of their lands has become further entrenched with successive water reforms.	+1	-3	+2	-3	-1
27	The farmers get paid when their water is bought back, but the local businesses and towns just have to suffer and deal with it. It's not fair.	-2	0	-1	-1	+1
28	Irrigators have borne the brunt of water reform. They have experienced disproportionate and unfair impacts.	-3	+3	-4	-4	0
29	First Nations people and organisations should have access to water for economic purposes to alleviate some of the disadvantage that they experience.	+3	-4	+3	-4	+1
30	Buybacks are the fairest way to recover real water for environmental benefit.	+4	-2	-1	0	-1
31	The key environmental objectives of the Basin Plan are unachievable.	-4	+1	-1	-2	-2
32	It's not fair for landholders to have the value of their farms eroded by delivered overbank flows.	-3	0	-3	-1	0
33	Addressing conflicting demands for water is a complex problem and there are no simple solutions to make outcomes fairer.	+3	-1	-2	+2	+5
34	Irrigators are willing to accept reduced water availability; as long as they get their fair share like others have.	-2	-1	-1	-2	0
35	Working to find areas of common ground between different water users (including the environment) is a good way to identify fair outcomes.	+2	+2	0	+1	+3
36	The purchase of easements or compulsory acquisition of land to allow flooding of important floodplain and wetland ecosystems should be a priority.	+2	-2	0	-2	0

Continued on next page...

#	Statement	Factor array scores				
		1	2	3	4	5
37	**Fair water management in the Basin needs to account for recreational river activities.**	0	0	0	0	0
38	**Everyone benefits from healthier rivers. It is not fair for any one group to bear the entire cost.**	+1	+2	-1	+1	+2
39	**Our culture and people are dying. The off-stream billabongs, their flora and fauna are dying, all due to the excessive upstream water take. This is unfair.**	+1	-4	+4	0	-2
40	**It is only fair to ask those who benefit from water reforms and infrastructure investment to contribute water for the environment.**	-1	-1	-2	-1	0
41	**Climate change makes it more difficult to resolve issues of equity and fairness in the management of Basin water resources.**	+2	-1	-2	-1	+1

*The factors are the perspectives as follows: (1) Environmental Envangelism; (2) Country Localism; (3) First Nations Restoration; (4) Plan Pragmatism; (5) Complexity Pluralism. Factor array scores represent the *typical perspective* of participants within a given factor. Each score shows the relative strength and direction (agreement or disagreement) with each statement, as identified by the factor analysis. Statements with scores closer to +5 reflect strong and consistent agreement by participants grouped into that factor, while those with scores closer to -5 represent strong and consistent disagreement. Scores near zero suggest neutral or mixed views. These scores summarise and communicate the shared perspective of each perspective, making it clear which statements define or characterise each group's perspective.

Appendix B: Detailed findings

Detailed description of the five perspectives

Environmental Defence

> *Environmental Defence explains 12% of the total variance in the study and has 17 participants aligned to it. Out of those 17, eight are also associated with other perspectives (five with Complexity Pluralism, four with Plan Pragmatism and one with First Nations Restoration).*[*]

The **Environmental Defence** perspective places the highest priority on protecting and restoring the environment for future generations (10, +5).[†] From this perspective, ensuring environmental health is a foundational requirement for maintaining functional communities and economies, as "no functioning community and country persists without protection of the environment" (P26). Explicitly emphasising environmental suffering is unnecessary (17, 0) because it is seen as a "fundamental truth" (P18). This perspective recognises that climate change is an unavoidable reality—"Climate change is coming, whether we like it or not" (P26)—and acknowledges it will exacerbate issues of equity and fairness (41, +2, P18). Environmental Defence accepts that climate-related policies will inherently create differential impacts, with agriculture among industries likely to "take some of the hit" (P58). While this will pose burdens, these are not viewed as inherently unfair (22, -3), despite some farmers' perceptions to the contrary (P14). Although addressing conflicting demands for water is inherently complex (33, +3), Environmental Defence regards this complexity as unavoidable and necessary (P59).

Ultimately, what matters most for Environmental Defence is tangible action to protect the environment, alongside careful consideration of how such actions are implemented. Accordingly, there is strong support for government water buybacks as an effective and affordable measure to achieve environmental benefits (30, +4; P18, P57, P54). However, buybacks are not necessarily viewed as the fairest method for recovering environmental water, reflecting this perspective's tendency to prioritise outcomes over process. Despite supporting buybacks, Environmental Defence strongly rejects the claim that these measures are inherently unfair and damaging to communities (2, -4). While acknowledging buybacks "CAN damage communities and CAN be unfair" (P59, also P26), this perspective emphasises that impacts depend substantially on how buybacks are implemented. Thus, while environmental outcomes are paramount, fairness in execution remains an important consideration.

Environmental Defence perceives claims of buybacks' unfairness as narratives promoted primarily by the irrigation industry (P9, P57), and considers irrigators' assertions of hardship to be overstated or disingenuous. Indeed, the claim that irrigators have borne the brunt of water reform (28, -3) is dismissed as "nonsense" (P9). Instead, irrigators are seen to have benefited substantially from past water reforms (P59, P26, P14, P54, P57, P18). While irrigators should return some water (7, +1), ultimate responsibility lies more with government policies that permitted excessive water extraction rather than irrigators themselves (P9, P58, P57, P18). However, there remains significant doubt about irrigators' willingness to accept reduced water availability (34, -2), as this acceptance is expected to depend strongly on context and perceptions

*Numbers do not add up to eight because some participants are aligned to three perspectives.
†Numbers in brackets like this (10, +5) refer to the Q study statement number (10) and the Q sort value this statement has for the perspective under discussion (+5, i.e. strong agreement). Numbers with a 'P' like this (P26) refer to the specific participants, either for quotes or when certain participants made the point.

of fairness (P59, P14).

Regarding the Basin Plan itself, Environmental Defence sees it as imperfect, but currently the most viable available option: it may not be the fairest possible approach (12, 0), yet it appears to be "the best available" (P14), and "there is no other real approach that has legs" (P57). Contrary to claims of unattainability, Environmental Defence believes the environmental objectives of the Basin Plan are achievable (31, -4). The frustration lies in the fact that progress is "slow and arduous" (P26), and implementation has been significantly flawed—"implementation has been botched" (P9). Rather than describing the Basin Plan as unjust and defective (19, -1), Environmental Defence recognises it as a pragmatic political compromise not explicitly crafted with justice and equity in mind (P58, P36). While the Plan produced both notable successes and considerable failures, describing it as entirely "hijacked" for political or personal gain (15, -1) is considered an exaggeration. Nevertheless, this perspective acknowledges the process as deeply political (P26), compromised by poor handling of scientific evidence and undue lobbyist influence (20, +2). Participants strongly emphasised the validity and importance of scientific evidence, highlighting frustration that such evidence was sometimes disregarded for political expediency (P58). As one participant suggested, it would be more accurate to describe the Basin Plan as "a political compromise that ignored the science and that sought to deliver a politically desirable outcome" (P58).

Environmental Defence also emphasises that the Basin Plan must deliver tangible benefits for Aboriginal communities (8, +4). The traditional triple bottom line approach is viewed sceptically, but Aboriginal water rights are supported unequivocally as a matter of restorative justice, as Aboriginal communities have historically been "entirely left out of any conversations about water and land" (P26). The perspective strongly rejects claims that enshrining Aboriginal rights to water is unfair to other Australians (23, -5), as "we need to right some serious wrongs" (P9). The neglect of First Nations rights has persisted far too long (P14, P57), and formally recognising these rights is merely the first step in addressing historical injustice (P18). While some progress in addressing injustices through water reforms is acknowledged (26, +1), it remains insufficient. Environmental Defence supports providing First Nations communities with water access for economic purposes (29, +3), although this water should not be sourced from environmental allocations. Similarly, while acknowledging that Murray-Darling water was always Aboriginal water, Environmental Defence does not agree that all unallocated water should automatically revert to Aboriginal communities (18, 0), as environmental needs remain a critical priority.

Country Localism

> *Country Localism accounts for 9% of the study variance and there are 13 participants associated with it. Out of those 13, two are also aligned with Complexity Pluralism.*

The **Country Localism** perspective strongly believes the Basin Plan was hijacked for political—though not necessarily personal—gain (15, +5). This perspective considers that while everyone should have fair access to consultation and engagement processes, there is some ambiguity about whether lobbyists have enjoyed privileged access (20, +2), primarily because the statement itself is quite broad (P21). Nevertheless, Country Localism regards the Basin Plan as fundamentally unjust and defective (19, +3). Like Environmental Defence, Country Localism acknowledges the Plan was never explicitly designed to deliver justice or equity, yet it is perceived as having failed even to achieve its stated objectives. Although the Plan's environmental goals might technically be attainable, they are viewed as inherently unfair (31, +1; P40, P45). From the Country Localism perspective, environmentalists portray the river as "a Nirvana that's green forever" (P37), which contrasts sharply with the practical experience of people who "actually know the environment" (P37) because they live and work in the Basin. While recognising that water is needed for sustaining more than just crops (14, +2), this perspective strongly emphasises the need to balance all competing demands.

Country Localism rejects the idea that the environment is suffering more severely than communities and the economy (17, -3). Instead, this perspective argues that the environment is inherently dynamic, naturally changing over time and through usage, and it remains resilient, able to "rebound" (P20, P45) from droughts and floods. Consequently, it firmly disputes claims that culture, people, and nature are dying due to upstream water extraction (39, -4), labelling such notions as a "fallacy" (P45) rooted in

misunderstandings about the environment and how it operates (P37). These misconceptions are partly attributed to policymakers and licensing officials who have "never been on the ground, never had their toes in the water. Need better education, more in the field." (P45). From this perspective, current water reforms and policies suffer from being designed by decision-makers disconnected from local realities, leading to misguided decisions.

Country Localism strongly opposes providing specific water allocations to Aboriginal communities for either cultural (18, -5) or economic purposes (29, -4). Aboriginal communities are viewed as no more deserving than other communities (P20), and fairness is defined primarily as equal treatment for all (P37). Special access to water for First Nations is seen as unfair compared to those who have paid for licenses or use water for other legitimate purposes. Regarding the Basin Plan's stated objective to deliver equitable benefits to Aboriginal communities alongside the traditional triple bottom line, some Country Localism participants highlight the finite nature of water. One participant notes, "When there's water in the river, I most agree with that" (P44); however, during periods of scarcity, First Nations communities should not automatically receive priority. Others within this perspective argue explicitly that a focus on restorative justice for Aboriginal communities is unfair (23, +2), divisive, and must cease (P37, P40). "Bias towards Aboriginal people" is seen as "flavour of the month" (P40), having gone "overboard" (P20), with one participant making derogatory statements about whether First Nations communities' deserve any assistance at all (P11).

There is substantial concern among Country Localism adherents regarding who ultimately bears the burden of water reforms. Government-ordered water buybacks are viewed as unfair and believed to "absolutely" (P44) damage communities (2, +4). Buybacks are not considered the fairest mechanism for recovering environmental water (30, -2), because they "take the livelihoods away from farmers, irrigators, graziers and entire towns" (30, -2). Similarly, it is agreed that requiring one group alone to bear the cost of river health improvement is unfair (38, +2), though there is some uncertainty about which group is implied. More specifically, there is strong sentiment that agriculture must not disproportionately bear the burden of climate change policies (22, +4). Agriculture is described as an "easy victim" (P45) in climate change debates, and some Country Localism participants express scepticism about human-caused climate change itself (P37, P45).

Country Localism acknowledges that irrigators have borne at least some of the brunt of water reforms (28, +3), although impacts vary locally. Opinions differ within this perspective about whether irrigators are willing to accept further reductions in water availability (34, -1), with some noting that reductions have already occurred or that irrigators already receive a fair share. There is a clear rejection of First Nations' views on original water allocations (7, -3), which are characterised as "sickening" (P20) because water was "not taken unjustly/stolen" (P11), but rather was granted legitimately through government licensing—a point also acknowledged by Environmental Defence.

Several participants aligned with Country Localism perceive the Basin Plan as biased against upstream communities (12, -2), characterising it as unfair and overly favourable to downstream interests (P45). They highlight that "upstream is often drier" (P11) and advocate for greater appreciation of the hardships faced by these communities (3, +3). This perceived bias is linked to centralised decision-making originating from Canberra, in contrast to state authorities who have "local knowledge" (P11). Participants express more trust in local experience than in centrally produced scientific studies, suggesting that centralised political control has politicised decision-making and obscured "what is fair and balanced" (P37), including equitable balances between upstream and downstream water use (6, +1). Regarding equitable access by states (1, -1), interpretations differ among participants: some view equity as equal distribution, while others believe it should reflect productive water use or broader notions of fairness. Overall, Country Localism regards centralisation as undermining fairness, advocating for policies shaped by local knowledge and realities.

First Nations Restoration

> *The **First Nations Restoration** perspective has 12 participants associated with it and accounts for 10% of the study variance. Out of the 12, three participants are also aligned with other*

perspectives (one aligned with Environmental Defence and two with Plan Pragmatism). In the overall analysis, First Nations Restoration is correlated with Environmental Defence, demonstrating agreement on some aspects of Aboriginal rights and the importance of the environment. However, there are differences in salience on priorities for water and its appropriate use between these perspectives.

The First Nations Restoration perspective strongly emphasises that the Basin Plan must deliver positive and equitable benefits for Aboriginal communities alongside economic, ecological and social outcomes (8, +5). There is clear view that Murray-Darling Basin water was always Aboriginal water, though this perspective shows less certainty about allocating additional water exclusively to Aboriginal use (18, +3), reflecting different interpretations about what that might involve. However, there is broad agreement that First Nations communities should have access to water for economic purposes (29, +3). While some participants felt conflicted on this point, others highlighted the dual benefits "in terms of Indigenous economy and Western economy" (P56). The right of Aboriginal communities to determine their own water use—economic or otherwise—is emphasised: "we have a right to economic prosperity, unshackled by government. I believe we have the necessary leadership, knowledge, and governance to be able to manage large allocations of water…we can leave it in situ for shared benefits such as environmental and cultural outcomes. But if we want to also lease it on the water market for economic income for self-determination on an economic platform that is not welfare driven, we have a right to do this" (P67).

Within First Nations Restoration, opinions differ on whether water reforms have perpetuated injustice toward First Nations peoples (26, +2). However, participants broadly agree that colonisation has had ongoing negative impacts on the environment (P92). Consequently, culture, people, and nature are suffering significantly (39, +4), though not solely due to upstream water extraction. Participants shared firsthand experiences of declining biodiversity, dirty water, and changes in river conditions across their lifetimes and those of previous generations.

This perspective strongly rejects the idea that recognising Indigenous rights is unfair to other Australians (23, -5). Rather, First Nations Australians hold internationally recognised rights and a distinctive relationship to country (P56). The notion that this recognition is unfair reflects deeper societal issues: "this country has a chip on its shoulder when it comes to ATSI people and culture" (P92), and the country must confront the reality that Aboriginal people have been "maltreated for 200 years" (P56). Some participants acknowledged broader public perceptions that Aboriginal Australians receive preferential treatment, but their lived experiences contradicted these assumptions—"what I actually get is less" (P63). Several explicitly identified the claim of unfairness as racist, highlighting a failure to recognise the lasting legacy of colonisation and to appreciate the rich history, diverse cultures, and deep connection to water held by Aboriginal and Torres Strait Islander communities.

First Nations Restoration strongly emphasises the interconnectedness of the environment, water, Aboriginal culture, and community wellbeing, extending also to broader societal wellbeing. As one participant noted, "We're interrelated with the environment around us. If we're impacted, parts that make up that broader space are impacted" (P60). Although related to statements like recognising rivers' rights to flow, nourish, and sustain (16, +5), the interconnectedness itself was more explicitly highlighted during follow-up interviews. Participants emphasised how water problems, such as pollution, cascade into impacts on wildlife, fisheries, drinking water, and overall community health. Furthermore, rivers are viewed as sacred entities and living beings essential to collective survival: "The river is its own thing. The river has a life, it has a heartbeat. It's important not just for Aboriginal people but for the rest of the community. If you don't have a river system, the country won't survive" (P65).

Consequently, water policymakers must respect rivers as sacred, living entities with their own rights (16, +4). Participants highlighted rivers' intrinsic power (P56, P92), asserting that society depends upon them and should accord them greater respect. There is agreement that the environment must be protected and restored for future generations (10, +3). In alignment with Environmental Defence, First Nations Restoration holds that the "environment is foundation for all well-being of human, social, cultural, ecological and economic life" (P56), and acknowledges the need for major rebalancing. However, this perspective diverges somewhat from Environmental Defence in the sense that the environment is not the sole entity

suffering (17, +1); First Nations Restoration also highlights ongoing struggles faced by remote and Aboriginal communities, noting that economic priorities have overshadowed both community and environmental needs (P25, P92, P93).

First Nations Restoration does not believe the Basin Plan offers the fairest approach for all stakeholders, including the environment (13, -3), because it has "not been fair to the environment at all" (P56). The Plan is viewed as unjust and defective from both First Nations and environmental perspectives (19, +2), though there is recognition that "it was trying to do the best it could" (P25). Like Environmental Defence, First Nations Restoration differentiates between the intent of the Basin Plan and its flawed implementation. Participants suggested the plan had been partly hijacked (15, +2), evident in prioritising extractive industries and agriculture during implementation (P56, P97). Whether this prioritisation resulted from privileged lobbying access (20, 0) remains uncertain; some participants felt insufficiently informed to comment. Nevertheless, there was widespread agreement that First Nations people lacked fair or meaningful input into decision-making processes, undermining their influence on water policy: "a lot of the broader society and politics tick a box to say they've done it, but don't listen, and don't understand the breadth and depth of knowledge in our communities and culture" (P62). Consequently, improving the fairness and inclusivity of decision-making processes is an important priority.

Regarding water reforms, First Nations Restoration firmly rejects claims that irrigators have disproportionately suffered impacts (28, -4), arguing that the reverse is true (P56). Many participants feel irrigators receive more than their fair share, resist reductions in water availability (34, -1), and should return water unjustly taken (7, +2), although this view is not unanimous. Additionally, climate-related policies must address agriculture fairly, ensuring the agricultural sector carries only a fair share rather than an unfair burden (22, -3). Participants oppose artificial overbank flows delivered to farms, advocating instead for natural flow regimes (31, -3). While addressing conflicting water demands remains inherently challenging, participants express uncertainty about whether solutions must necessarily be complex (33, -2). Introducing climate considerations increases complexity but also highlights equity and fairness issues (P25, P56).

First Nations Restoration strongly disagrees that current water market rules are effective or fair, especially from a First Nations perspective (5, -4; P56, P97). Ensuring fair outcomes necessitates fair processes, highlighting the importance of equitable market structures. Additionally, this perspective rejects the notion that equity falls outside the market's responsibility, arguing instead that "it's not in the interest of an economy to have significant inequity and lack of wealth" (P56).

Plan Pragmatism

> *Plan Pragmatism has 16 participants associated with it and accounts for 9% of the study variance. Out of the 16, seven participants also load onto other perspectives (four on Environmental Defence, two on First Nations Restoration and two on Complexity Pluralism).**

Plan Pragmatism emphasises equitable water access across all Basin states (1, +4), advocating for proportionate rather than strictly equal distribution. Leaving decisions solely to the states is seen as perpetuating gross inequities (9, +3), notably because Eastern states currently have disproportionate influence (P53). This perspective strongly argues for balancing upstream and downstream water needs (6, +5), supporting stronger federal oversight and rebalancing due to excessive upstream water extraction. Plan Pragmatism explicitly rejects the notion that upstream communities experience disproportionate hardships (3, -3), instead insisting that "it's around the wrong way. Downstream communities are the ones that suffer the hardship" (P53, P29, P49). These perspectives underscore Plan Pragmatism's core belief that centralised government intervention is both necessary and beneficial for effective water reform.

Compared to other perspectives, Plan Pragmatism places particular value on a consistent, transparent, and broadly scoped federal approach to water management (25, +2). While acknowledging imperfections, the Basin Plan is described as "the best we've got. We have to work with this." (P49). It appears to be the fairest

*Numbers do not add up to seven because some participants are aligned to three perspectives.

available approach at present (12, +3), though participants recognise scope for improvement in future revisions (P53). Plan Pragmatism is somewhat sceptical about claims that the Basin Plan was outright hijacked for political or personal gain (15, +1), but acknowledges that certain groups have leveraged it to their advantage. However, this does not render the Plan inherently unjust or defective (19, -3). Rather, Plan Pragmatism highlights several positive outcomes derived from the Plan, although it also notes that the Plan's key environmental objectives, even if implemented properly, may ultimately be unachievable (31, -2). This perspective places significant emphasis on balancing environmental priorities with the interests of other groups and sectors, notably agriculture. While recognising agriculture's importance, Plan Pragmatism stresses that trade-offs are inevitable (14, +2), and managing these effectively is critical (P53). Given the diversity of stakeholders—"a lot of people in the mix" (P49)—addressing conflicting demands is necessarily complex (33, +2). Plan Pragmatism trusts scientific studies and argues that the government must continue to pursue water reforms that balance competing needs effectively.

The strong desire for balanced treatment across all water users informs Plan Pragmatism's disagreement with providing First Nations people specific water access for economic purposes (29, -4). This perspective considers it to be unfair to treat First Nations differently from other water users (23, +3). Instead, Plan Pragmatism consistently argues for equality across all water users: "Everyone should be treated equally - nobody should be better or more rights than the other. We all rely on water, so everyone's input is valuable and nobody's rights should be greater than the next." (P53). Similarly, this perspective strongly disagrees with the notion that Murray-Darling Basin water has always belonged to Aboriginal peoples, or that additional water should automatically be allocated for their cultural use (18, -5), largely because it perceives water as a resource that cannot be exclusively owned.

Like the Environmental Defence and First Nations Restoration perspectives, Plan Pragmatism recognises the need to protect and restore the environment for future generations. However, in contrast to these perspectives, Plan Pragmatism prioritises the experience and wellbeing of future human generations rather than the intrinsic value of the environment itself. Consequently, strongly worded statements regarding inherent environmental values are less compelling for this perspective (39, 0; 17, 0). Participants also appear somewhat ambivalent about climate change impacts (22, 0; 41, -1), with differing views about whether an urgent environmental crisis exists. Instead, Plan Pragmatism re-emphasises the importance of policymakers engaging thoughtfully and balancing the needs of both environmental sustainability and agricultural interests (16, +2).

Plan Pragmatism firmly disagrees with claims that irrigators have disproportionately borne the brunt of water reforms (28, -4). Its critique, however, remains pragmatic rather than ideological: while it acknowledges that irrigators do indeed use more water than other groups (P53), it does not view this usage as unjust (7, 0). Rather, participants highlight that water allocation to irrigators was originally facilitated by government policies (P35), and it is therefore reasonable that these allocations might be adjusted as part of a fair, balanced approach to addressing diverse needs.

Complexity Pluralism

> ***Complexity Pluralism*** *accounts for 12% of the study variance and has 18 participants associated with it. Out of these eighteen, eight are also associated with other perspectives (five with Environmental Defence, two with Country Localism and two with Plan Pragmatism.*[*]

Complexity Pluralism strongly emphasises that addressing conflicting demands in water policy is inherently complex (33, +5). Unlike the other four perspectives, Complexity Pluralism explicitly rejects the existence of simple solutions, stressing the extraordinary complexity of water management: "Take the most complex that you can think of and multiply it by 10, and there you've got water policy" (P55). While identifying common ground among stakeholders could help navigate this complexity (35, +3), it does not guarantee fair outcomes (P43). Complexity Pluralism broadly supports equitable water access across all states (1, +3); however, it recognises that equity definitions vary significantly. If equity simply means equality, as implied by Country Localism and Plan Pragmatism, Complexity Pluralism disagrees.

*Numbers do not add up to eight because some participants are aligned to three perspectives.

Relative to other perspectives, Complexity Pluralism appears broadly accepting of the current water market system. The market is considered reasonably fair (5, +2), though improvements are possible. Clear and consistent market information is recognised as important for supporting equity (25, +2). Importantly, Complexity Pluralism does not see the ownership of water by non-farmers or entities other than the environment as ludicrous (4, -4). This acceptance of market mechanisms does not imply enthusiastic support for water trading, but rather a pragmatic acknowledgement of its existence and necessity (P13, P43). Complexity Pluralism holds that ensuring equity is not the market's fundamental role because "the market is the market" (P55).

Complexity Pluralism strongly rejects the notion that the Basin Plan is unjust or defective (19, -5). Although acknowledging flaws—"it's an evolving, continuing thing" (P55)—participants broadly view the Plan as functional and valuable despite imperfections (P5). While the Plan's environmental objectives may be optimistic, they are not deemed unattainable (31, -2); as one participant put it, "at least we're trying" (P8). Complexity Pluralism aligns with Plan Pragmatism in concluding that the Plan represents the best current option available and is preferable to no plan at all even if it is not necessarily the fairest possible approach (12, +2),. Therefore, Complexity Pluralism suggests prioritising improvements within the existing framework rather than pursuing major new reforms. Participants acknowledge that various interest groups—"every man and his dog"—have sought to influence the Plan (P43). Although lobbyists may have privileged access, this perspective does not necessarily equate access with influence over decision outcomes (20, -3).

Balancing upstream and downstream water needs is a significant concern for Complexity Pluralism (6, +4). Participants support greater recognition of upstream community hardships (3, +4) but dispute that upstream extraction alone is responsible for the decline in flora, fauna, culture, and human wellbeing (39, -2). Complexity Pluralism acknowledges considerable subjectivity regarding perceptions of hardship and fairness, exemplified by the well-known sentiment: "famous quote: people who live upstream of me are stealing water, people who live downstream are wasting water. There is hardship" (P13). Participants feel decision-makers often misunderstand or underestimate the negative community impacts of buybacks (3, 0), yet accept such impacts as a natural consequence of necessary policy interventions. As one participant remarked, "If a country goes to war, as a consequence, you'll lose people—people get killed. You want to mitigate damage to community, but it happens" (P43). While recognising that policymakers sometimes undervalue regional implications, Complexity Pluralism differs sharply from Country Localism by placing significant trust in expert scientific studies rather than lived experience and lay knowledge.

This perspective recognises that achieving healthier rivers will inevitably create winners and losers, with multiple groups bearing costs (38, +2). Although irrigators have borne some impacts of water reform (28, 0), Complexity Pluralism perceives them as relatively wealthy compared to the broader communities, which it sees as more significantly impacted. Participants firmly reject claims that irrigators unjustly appropriated water (7, -4), clarifying that governments initially allocated this water to them. Nevertheless, Complexity Pluralism supports the idea that irrigators should return some allocated water. Opinions within this perspective differ regarding whether irrigators have already accepted reductions in water availability (34, 0), with some participants unsure about irrigators' ongoing willingness.

While Complexity Pluralism agrees on the importance of environmental protection for future generations (10, +3), it rejects the possibility of fully restoring the environment. Similar to Country Localism, this perspective conceptualises the environment as inherently dynamic, making full restoration unrealistic without "a time machine." Neither perspective agrees there is an urgent ecological crisis, believing instead that careful, long-term management is essential for a resilient and dynamic environment. Complexity Pluralism does not believe the environment suffers more than the economy or communities (17, -1); rather, each faces burdens to varying degrees. Complexity Pluralism appears ambivalent about Aboriginal water rights (8, +1; 29, +1), yet explicitly disagrees that treating Aboriginal people differently and providing unique rights constitutes unfairness towards other Australians (23, -2).

Conceptualising equity, fairness and justice from Q study results

In line with previous Watertrust analysis of submissions, Hansard records, and social media discourse,[4] no single, clear definition emerged across the stakeholder perspectives for the terms "equity", "fairness", or "justice". Instead, the terms often overlapped significantly in their meanings and usages. Common dictionary definitions and everyday language typically define these concepts through reference to each other, with equity described in terms of fairness and justice, fairness in terms of what is just and right, and justice in terms of equity and fairness. This interdependence makes isolating any one term conceptually challenging. Rather than representing distinct concepts, equity, fairness, and justice function collectively within a broader semantic field, jointly conveying ideas about moral correctness or normative appropriateness. Such conceptual overlap is not unique to everyday language but also appears in foundational philosophical works. For example, John Rawls, in his influential *A Theory of Justice*, introduces his core idea explicitly as "justice as fairness," explicitly linking the two concepts.[4,26]

As demonstrated in the detailed exploration below, stakeholders' understandings of equity, fairness, and justice encompass a broad spectrum of interpretations. Equity was particularly challenging for many participants to define clearly, prompting a range of interpretations—from strict equality to proportionality and corrective redress for historical disadvantage. Similarly, fairness elicited diverse perspectives, varying from beliefs in equal treatment to acknowledgment that fairness might involve differential burdens and nuanced trade-offs. Understandings of justice tended to be less explicitly articulated, emerging primarily through responses to specific statements rather than through direct conceptual elaboration. Collectively, these varied interpretations highlight the complexity policymakers face when addressing these intertwined concepts in water management.

Equity

Participants' understandings of equity varied considerably and did not align clearly with specific perspectives. However, Environmental Defence and First Nations Restoration presented somewhat clearer conceptions.

Participants from all perspectives, except First Nations Restoration, expressed uncertainty about defining equity precisely. While fairness was commonly understood as subjective, equity generated more confusion. This uncertainty made ranking statements referencing equity particularly challenging. One participant commented, "It's hard to agree with a statement without knowing what equitable means" (P26). Another echoed this, stating, "The statement could be interpreted differently by different perspectives. I'm really struggling with it" (P40).

A minority from Country Localism and Plan Pragmatism interpreted equity as meaning equal or identical treatment for everyone. "You'd hope they were trying to do the same so it's fair and equitable," explained one participant. Specifically, this view connected to arguments against differential treatment for First Nations communities: 'Prioritising one group isn't going to solve the inequality and inequity" (23, P50). However, even among those understanding equity as equality, some explicitly disagreed with equal allocations, especially concerning water distribution across states. One participant remarked, "Equitable implies that everyone has an equal share. States don't have equal needs to water. States shouldn't have the SAME amount of water" (9, P57).

Other participants confidently rejected the idea that equity meant equal treatment. Instead, equity involved accounting for relative advantage, disadvantage, needs, and benefits: 'equitable means equitable–not equal. Equitable = taking into consideration advantage/disadvantage and needs/benefits" (P13). The practicality and feasibility of achieving equity were also highlighted, since 'One approach does not fit all in this market. Different approaches work–they're not fair and inequitable" (P49). Thus, for several participants–particularly from Environmental Defence, Plan Pragmatism, and Complexity Pluralism–equity meant proportionality. This referred either to proportional access to water for states or

proportional distribution of benefits.

For First Nations Restoration, equity was specifically about correcting historical injustices. Currently, despite significant contributions of knowledge and care, First Nations communities continue to experience discrimination. One participant observed, "There's been enough harvesting of Indigenous knowledge from across the basin for them to write it into the plan. Government can do this, but there's unwillingness to open the doors to equitable rights in the water arena" (P67). Another participant argued explicitly for giving greater stakeholder status to those who care for the river compared to those who merely extract from it (P63).

Environmental Defence particularly emphasised that equity requires a systematic or coordinated approach. According to one participant, "The systems that do that must be able to communicate with each other, to understand if they're looking at apples or oranges. Foundation of equitable = similar approaches" (11, P7). This did not mean uniformity, but rather an overarching framework accounting for differences while maintaining equity. Environmental Defence also asserted that ensuring equity was not the market's role, but rather required robust regulatory frameworks (13). Additionally, this perspective emphasised that equity can differ significantly between policy design and actual implementation—policies might be equitable on paper yet inequitable in practice.

Fairness

Participants across Environmental Defence, First Nations Restoration, Plan Pragmatism, and Complexity Pluralism generally agreed that fairness was subjective. As one participant stated, "Different readers have different views on what a fair share is" (P35). Different stakeholders naturally perceive fairness differently. A participant from First Nations Restoration, for example, considered water market rules personally "fair enough" but inadequate from a First Nations perspective (5).

Environmental Defence and Complexity Pluralism particularly stressed that understanding fairness necessitates embracing complexity. Uniform approaches cannot deliver fairness precisely because the context is too complex. Similarly, fairness cannot be reduced to a single criterion or solution. Even if state-based approaches might be unfair (11), a strictly uniform method was also viewed as insufficient, underscoring the necessity of differentiation among regions and stakeholders. Thus, fairness explicitly does not mean equal treatment for all.

A related sentiment emerged among First Nations Restoration, Plan Pragmatism, Environmental Defence, and Complexity Pluralism, suggesting fairness does not preclude certain groups bearing burdens from water reforms or climate policies. It is not unfair for those contributing significantly to problems to help bear the costs of addressing them. As one participant articulated, "I agree policies shouldn't put an unfair burden on agriculture, but a burden isn't necessarily unfair. I don't know what people in agriculture think is unfair, but a burden can be quite heavy and not unfair" (22, P36). Nevertheless, perceptions of fairness might depend on historical injustices; for example, First Nations participants argued explicitly that those historically suffering injustice should not now bear costs: "Why would you ask those who suffered from injustice to pay for redressing?" (P56). While Country Localism might feel they have already borne significant costs from water reforms (our interpretation), explicit claims that fairness could include bearing burdens primarily came from the other perspectives.

Environmental Defence, and to a lesser extent First Nations Restoration and Complexity Pluralism, extend fairness beyond human concerns, emphasising the environment and future generations as deserving stakeholders.

Plan Pragmatism, and to some degree Complexity Pluralism, emphasise balancing stakeholder needs as central to fairness, explicitly acknowledging that fairness does not necessarily imply equal treatment. By contrast, Environmental Defence challenges the usefulness of "balance", questioning its clarity: "What triggers me is 'balance'. We need the science and economics to demonstrate the trade-offs." (P18). This skepticism aligns with their view that fairness sometimes involves certain groups absorbing burdens.

Country Localism uniquely rejects differential treatment—particularly for First Nations people—as fair,

equating fairness with strict equality. Fairness for Country Localism explicitly does not imply equity, but rather equal treatment, except when differential treatment might favour their own interests. They argue that enshrining differential rights for First Nations communities is inherently unfair, believing such measures have gone too far and create division. Similarly, some participants argue that environmental interests have been over-indulged: "All was mapped out and now goalposts have changed to where we've got to over-indulge the environmentalists." (P45). Country Localism explicitly emphasises fairness as equal treatment (P55). Plan Pragmatism and Complexity Pluralism, while also cautious about differential treatment for First Nations groups, stress fairness, equality, and balance without employing explicitly derogatory language.

By contrast, Environmental Defence, First Nations Restoration, and to a lesser extent Plan Pragmatism and Complexity Pluralism link fairness explicitly to equity, particularly regarding differential treatment. For First Nations Restoration and Environmental Defence, this reflects restorative justice principles: "It's not unfair to all other Australians, because others' idea of who we are is fundamentally only possible because of the abuse of First Nations peoples and their rights. So, it only makes it fair to all other Australians" (P56). Here, fairness as equity creates a level playing field, which necessarily requires differential treatment due to historical inequalities.

Participants broadly agree fairness requires equal participation opportunities, although this point was less prominent or distinctively aligned to particular perspectives.

Environmental Defence and Complexity Pluralism notably adopt pragmatic approaches to fairness, emphasising practical measures within current constraints to achieve the fairest possible outcomes. All perspectives recognise fairness as closely linked to how actions (like buybacks) are implemented, with good intentions potentially undermined by flawed execution (12, P44).

Country Localism stands alone in viewing fairness as demanding removal of politics from decision-making, believing politics inherently obscure fairness. This stance is likely linked to their strong sense that the Basin Plan was politically hijacked, implemented by distant federal authorities detached from local realities.

Justice

Among the three concepts, justice was referenced least frequently, typically discussed in direct response to statements explicitly mentioning it. Participants rarely elaborated abstractly on what justice itself meant.

Environmental Defence and First Nations Restoration agree First Nations people experienced historical injustice through colonisation and dispossession. They diverge, however, in views on whether recent water reforms have alleviated or exacerbated injustice (26). Environmental Defence recognises some recent positive steps, whereas First Nations Restoration expresses greater skepticism or uncertainty, with one participant highlighting how selling water compounded historical trauma: "compounded the traumatic experiences for our families and how they lived along the river banks and now it's been taken away from us" (P63).

All perspectives reject accusations that irrigators unjustly took water, noting instead that government policies enabled such extraction. Yet, some still believe water was unjustly taken and advocate returning it (primarily Environmental Defence and First Nations Restoration).

Environmental Defence, Country Localism, and Plan Pragmatism distinguish clearly between the Plan itself and its implementation. These perspectives generally do not label the Plan itself as unjust but criticise its execution. While Environmental Defence and Plan Pragmatism strongly hold this distinction, it's more nuanced within Country Localism, where a majority see the Plan itself as unjust (19). This creates a rare alignment between Country Localism and First Nations Restoration.

Further analysis is required to fully understand how justice is understood within each perspective. For instance, Environmental Defence implicitly treats the environment as deserving justice but rarely explicitly frames it this way, indicating justice as a concept may be less immediately salient or less explicitly discussed by participants overall.

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