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# Improving Australian water management

## The contribution of social values research and community engagement

By Steve Hatfield-Dodds, Geoff Syme and Anne Leitch

### Water has been a central focus of culture and social organisation throughout human history.

Values concerning water reflect the diversity of human relationships with water, with a single body of water often providing for survival, livelihoods, wealth, identity and status. Access to water has shaped patterns of regional development and been an important driver of many of our formal and informal institutions.<sup>1</sup>

Population growth, increasing use of water for irrigation, emerging signs of ecological stress, and uncertain future water availability have together resulted in widespread recognition of the need to improve the management of Australia's scarce water resources, including through the creation of new institutional structures.

Successful water reform around the world makes a feature of community involvement, implying that planning and managing with, and for, people is part of the core business of water managers. In this paper we argue that effective communication and community engagement are central to achieving worthwhile and enduring water reform.

This means that changes to water management arrangements need to recognise and address complex social values and attitudes, as well as the formidable technical complexity of our water systems. Water reform, such as the National Water Initiative, must negotiate the multiple layers of value and meaning that surround water as well as recognise the social, economic and environmental consequences of changes in water use. It also means that community

support must be sought, which calls for sound understanding of values around water, of values around the consequences of change, and clear communication of the benefits that will ensue from any change.<sup>2</sup> This, of course, will add new challenges to the implementation task, but will bring new rewards, as the community has the capacity to make an important and necessary contribution to water reform processes.

### Role of social values in adaptive governance

Institutional structures must adapt and respond to increasingly complex problems associated with meeting potentially conflicting human needs and aspirations. Water management challenges tend to be 'wicked problems' in which the solution to one aspect of a problem can simply reveal an unexpected symptom of another dilemma.<sup>3</sup>

Adjustments to management arrangements for water resources must recognise that different stakeholders groups have different objectives. Successful engagement requires attention to multiple contested values, rather than a mindset framed in terms of trade-offs between two dominant values—such as 'environment' versus 'development'—or the optimisation of a single value subject to some constraint. Despite the increasing use of multi-criteria analysis in planning, there is still a lack of a coherent methodology for evaluating the impacts of change in water management against multiple goals or dimensions of wellbeing.<sup>4</sup> This problem is exacerbated by the absence of a clear articulation of our national goals or values to be served through water and water management.

The reality of contested values presents both well-known challenges and less recognised opportunities. The presumption that communities will be polarised is often used to support a 'crash through' approach to reform that is guided by a single distillation of the goal to be achieved. This is a fragile strategy—at least in democratic nations—given the depth of the passions aroused by water issues. In contrast, recognition of multiple currencies of value allows a more nuanced approach which builds a coalition of support through identifying packages of action that produce outcomes of value to different constituencies. This approach focuses on expanding the negotiation space and crafting win-win solutions (and opening up opportunities) rather than framing the entire process in terms of trade-offs between opposing values. Indeed, we consider attention to sustainable development draws attention to the extent to which many of our major challenges now consist of a contest between institutions that focus on short-term exploitation versus embedding a long-term productive stewardship ethic.

To add to this complexity, there is often a disconnect between the goals, framing and discourse around water distribution of water management professionals and the communities that they serve. Management agencies and policy advisors tend to emphasise efficiency, control, and industry outcomes. While these are all important, the general community instead tends to view reform proposals primarily in terms of equity and distributional impacts—revolving around 'the distribution of benefits and the costs of services, and who pays, and the distribution of risks ... who is vulnerable, and to what degree'.<sup>5</sup> These underlying concerns provide fertile ground for disaffected groups and disadvantaged interests seeking to block worthwhile change.

Overcoming this disconnect, and seeking to communicate the impacts of reform in the currencies of value to communities could make a significant contribution to water reform in Australia. Yet we lack adequate capacity for dealing with these issues within our water policy, planning and implementation agencies: reflected in an asymmetric skill base and power relationships across disciplines within most agencies.

## Role of communication in water resources planning & management

While the water industry acknowledges the need for dialogue with the community, actually implementing such a conversation seems more difficult to achieve. It is often considered that government should be careful to moderate the influence of the community—given an inch 'they' will take a mile—and a belief that an 'expert' is required for 'balanced' decisions in the public interest. Even more covert is the concern that the involvement of the public may not only reduce the quality of the decision but also erode professional control.

Yet there is growing evidence in the Australian context of the community's ability and motivation to converse and participate on issues relating to water resource ethics, trade-offs and planning criteria. The Australian community does expect communication from the water industry but also wants to converse and obtain feedback from it. Only commitment to inclusive decision-making processes will ensure that informed conversation and debate occurs.

Key issues in relation to water allocation and use include: perceived fairness, willingness to accept trade-offs, a set of planning criteria, representative input, appropriate framing of the discourse, and an understanding of determinants of urban and rural water consumption and responses to water conservation measures.

## Fairness and ethics

The community has demonstrated that it can apply many of the traditional 'academic' approaches of philosophers, economists and social scientists in lay language at both national and regional levels.<sup>6</sup> These fairness criteria can be used to design decision-making processes in difficult allocation problems to clearly address overall societal values. Studies across different regions within Australia also indicate that issues—such as how to share the burden of reducing water allocations—tend to constellate around a small set of commonly held values, although the weights attached to these vary with specific local circumstances and history.

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## Trade offs

The community is capable and willing to make trade-off judgments in water resources decision making such as: setting of levels of service for urban water reliability issues;<sup>7</sup> judging the desirability of investment in urban water aesthetics upgrades; and expressing trade-offs for the allocation of water for environmental flows.<sup>8</sup> Reasoned preferences are made by community members in water resource issues, much as they do for other issues in their lives.

## Planning criteria

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The community can make judgements with ethics in mind, make useful trade-off judgments to enlighten planning and provide meaningful evaluative criteria to judge between alternatives.<sup>9</sup> The question then becomes are we getting representative opinion on these issues or is this information simply from a self-selected group of interested people?

## Representative input

It is often assumed that representative feedback is not or will not be obtained because public involvement programs will only interest the higher socio-economic and special interest groups,<sup>10</sup> or are generally designed around procedures that are created unintentionally by middle class professionals for like-minded and situated individuals. This is not necessarily substantiated.<sup>11</sup>

## Partnership in communication

Having established a conversation, will people want to 'take charge'? Such fears of the community 'taking over' may actually contribute to the mismatch between espoused government commitment to public involvement and actual performance. Yet it has been demonstrated that there is often considerable agreement between professionals and the public about what should be achieved.<sup>12</sup> There is also widespread community support for delegation of operational decision making to expert management agencies, once the communities have had the opportunity to provide meaningful input to the goals and criteria which are used to guide those decisions.

## Framing the conversation

Answers to an important policy issue can depend on the way in which it is presented or 'framed'. For example, it has been often demonstrated that the compensation required to offset a loss is at least double that associated with an equivalent gain.<sup>13</sup> Thus for procedurally just public involvement, the values implicit in alternative approaches to framing the question need to be made clear. If these 'frames' cannot be agreed the public conversation needs to include all perspectives for comparison so that the risks and benefits associated with alternative value systems can be interpreted.

## Values, attitudes and behaviour

While it is often assumed that people with different interests will have different values and attitudes, research tends to show that when it comes to water culture, groups have more similarities than differences. There is a strong element of public good thinking, acknowledgement of environmental rights, and support for the efficient use of water for Australia's overall wellbeing. The major challenges relate to ensuring excellence in public decision-making processes on a region by region basis which requires careful social analysis that incorporates a wide range of viewpoints and encompasses Indigenous values.<sup>14</sup>

## Water values in the urban & rural context

In the urban community there is growing interest in water conservation but there are also consistent differences between segments of this community. Important issues to consider regarding urban water use include:

- inclusion of all segments of the urban community in planning;
- consideration of quality of life issues associated with urban water use;
- improvement of socially based methodologies to enable informed choices between policy options; and
- consideration of broader scope (beyond household benefits) for the introduction and acceptability of 'new' water delivery systems and concern given to issues relating to trust, fairness and risk perception.

Surprisingly, in the rural community, there is a relative paucity of understanding and modelling of water use behaviours and alternative delivery systems for water. Sharing and allocation systems also have been only sporadically examined from a social perspective. There would seem to be a need for more research in this area.

In both the urban and rural context it seems that specific behavioural and preference modelling may greatly facilitate water reform. It is important to note that there is a need to understand individuals' water decision making in relation to personal costs and benefits and in terms of their wider social values (or personalities in the rural setting). It is important to understand that behaviours in this setting can largely be influenced by institutional factors and that issues such as trust, risk and fairness are likely to be important definers of progress in this area.

### Public involvement in policy & planning frameworks

Initially, social goals of water reform seemed to be restricted to the avoidance of unacceptably negative social impacts, with the 'social' aspects of the triple bottom line relatively de-emphasised in early water reform. Only recently has the Council of Australian Governments (COAG) begun to examine social issues in a systematic fashion for Australia. Given that reform has already begun to be implemented in the environmental and economic domains, it is vital that our understanding of social planning of water resources management improves before we inadvertently commit ourselves to a path that results in irreversible adverse social outcomes.

To date, letting markets lead water reform has led to a background culture of self-interest<sup>15</sup> in which the daily dialogue is governed by economic outcome rather than a balance between social, environmental and economic considerations. In this climate it is not surprising that there are no overall social or ethical principles governing water resources (including the role of the community in decision making)—in contrast to the situation in nations such as South Africa and Indonesia<sup>16</sup> where social considerations and community roles and responsibilities are spelled out.

Successful public involvement needs to include the development of a set of ethical principles, a set of guiding principles on what and where

public input will be included, as well as an outline of the style of planning for differing water resource problems.<sup>17</sup>

There are also challenges in terms of the support needed to maintain voluntary input into the future, given changing resource challenges and population age and distribution. A futures study for the long term role of volunteerism in catchment and natural resources management<sup>18</sup> drew up 12 recommendations of which six were regarded as fundamental for successful public involvement to develop and be maintained in the long term.

### Conclusions

Community interest in engagement with conserving and managing the resource has been increasing in recent years. There is ample evidence that the community has the capacity to contribute handsomely to the water reform process. Accessing this capacity will accelerate the implementation of the National Water Initiative through engendering public support, which will also enhance program implementation and water conservation.

It is important to note that more active community engagement does not imply an abrogation of decision making by politicians or public agencies. Rather, communities consistently indicate that they wish to be engaged as genuine partners in articulating the goals and criteria by which water management options are to be judged, and then water managers should get on with the job. This allows for responsive leadership—where agencies are able to engage and explain the need for reform, but do so in terms which resonate with the general public. The paper on the Toowoomba water poll by Dianne Thorley in this issue,<sup>19</sup> illustrates the dangers of sheltering behind a referendum on complex and emotive issues, rather than embarking on a more substantive engagement strategy.

Unfortunately, genuine broad-based community engagement remains the exception rather than the rule in negotiating changes to Australian water management arrangements, whether in relation to demand management, source development or allocation of entitlements. Many attitudes are founded on perceptions of fairness and trust between water interests and in regard to institutions. Institutions need to be developed to promote adaptive learning and community government partnerships. To do this there needs to be firm underpinning of

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the community and volunteer contributions (as suggested by the volunteer futures study). Water policy management agencies currently lack the prerequisites to ensure future viability of community driven structures, and this needs to be rectified if effective partnerships are to occur.

This is not rocket science. There is now the motivation from the community to develop a social view of water resources management. There is also the social research capacity and information base to assist this process. All that is needed is the determination to systematically incorporate the social dimension in water reform.

#### Endnotes

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