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Conceptualising Community Consultation in Public Policy Formulation: The Case of the Living Murray Debate in the Murray-Darling Basin of Australia

by

Lin Crase, Brian Dollery and Joe Wallis

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Conceptualising Community Consultation in Public Policy Formulation: The Case of the Living Murray Debate in the Murray-Darling Basin of Australia

Lin Crase, Brian Dollery and Joe Wallis **

Abstract

Community consultation is widely employed in contemporary Australia as a means of improving the formulation and implementation of public policy. However, little is known about the optimal level of community consultation. This paper develops a rational choice model of community consultation that seeks to encapsulate the major elements involved in optimising consultation and defines the optimal level of community consultation. The framework can also explain why actual community consultation processes may be sub-optimal. The rational choice model is then applied to the Living Murray debate over water resources in the Murray Darling Basin of Australia.

^{**} Lin Crase is Senior Lecturer in the School of Business at the Albury/Wodonga campus of La Trobe University. His research interests lie predominantly in the area of natural resource management, especially in the economics of Australian water markets.

Brian Dollery is Professor of Economics and Director of the Centre for Local Government at the University of New England. His research focuses on the economics of government, particularly Australian local government.

Joe Wallis is Associate Professor in the School of Economics and Public Administration at the American University of Sharjah. His research program falls in the broad area of public sector reform, and especially leadership and governmental reform.

Contact information: School of Economics, University of New England, Armidale, NSW 2351, Australia. Email: <u>bdollery@.une.edu.au</u>.

1. INTRODUCTION

Contemporary legislators and bureaucrats alike have expressed considerable enthusiasm for the use of 'the community' as a vehicle for enhancing the formulation and implementation of public policy across a variety of contexts, both in Australia (see, for instance, Catt and Murphy, 2003; VLGA, 2001) and other advanced democracies (see, for example, OECD, 2001). Terms such as 'community consultation', 'community engagement', 'community partnerships', 'bottom-up' initiatives, 'triple bottom line' planning, 'stakeholder input' and 'community reference groups' are now commonplace in the parlance of public administration¹. However, despite of the dramatic rise of community consultation processes as a key element of public policy development, relatively little is understood of the rationale for the wide range of such activities across the public policy spectrum. One way of approaching this problem is to draw on the rational choice framework of analysis with its primary focus on the choice dilemma (Green, 2003) as a means understanding community consultation in the policy domain.

Several factors undergird the need for a 'new' discourse on community consultation. In the first place, scholars now appreciate that both the extant market failure paradigm and its conceptual analogue in the theory of government failure have significant limitations in their respective abilities to prescribe feasible real-world public policies (see, for instance, Wallis and Dollery, 1999). This is perhaps most notable in the area of social policy where the capacity of either approach to generate optimal welfare outcomes has been severely challenged. This has provided scope for exploring

¹ In this paper we restrict discussion to the notion of community consultation without endeavouring to define this process with any precision. For an excellent review of the categorisation of alternative public consultation techniques, see Catt and Murphy (2003).

alternative paradigms and delivery mechanisms, such as 'volunteerism' and 'the community' (see, for example, Dollery and Wallis, 2003; Adams and Hess, 2001).

Secondly, political scientists have increasingly acknowledged that community consultation can enhance efficacious policy development by increasing the democratisation of policy formulation (see, for instance, Saward, 2001). This is likely to prove particularly beneficial where minority interests have an important contribution to offer to the policy-making process. A third and aligned factor is the growing acceptance that public policy cannot be created in a vacuum that ignores competing interests and preferences. Creating fora to air these preferences can thus generate superior policy outcomes to those created by politicians and technocrats operating in isolation.

Fourthly, and specifically in the context of natural resource policy formulation, the emergence and recognition of notions like Integrated Catchment Management (ICM) or Total Catchment Management (TCM) and the attendant exploration of common property right regimes has added momentum to the community consultation movement. Moreover, the nexus between community consultative processes and ICM has proved sufficiently strong so as to prompt some authors to treat them as virtually analogous (see, for example, Marshall *et al.*, 1993).

Perhaps the most notable manifestation of the community-focussed approach in the context of Australian natural resource management is the Landcare movement that has progressively expanded since its inception in 1989 to currently encompass about 40-50% of the farming population (Vanclay, 1997). Landcare groups comprise both

volunteers and community members of the community who collectively attempt to address resource degradation issues relevant to their local area with some funding being provided by the Commonwealth government. Thus, the state plays little part in assigning priorities or reaching agreement on the various tradeoffs that inevitably accompany actions to redress resource degradation. This has resulted in genuine public 'ownership' of the policy and its implementation (Cullen, 1997). The growth of Landcare (and similar initiatives) might thus stand as testament to the benefits of a community consultation approach in which the policy milieu is characterised by complex problems that comprise ecological, economic, political, social, and technological dimensions and are not easily resolved by either the state or the market (Wolfenden, 1997). In this instance, policy efficacy requires a coordinated response across all aspects of the problem and this is most likely to occur if the community 'owns' the problem and accepts its roles in resolving the problem. Community acceptance of the solution is also more likely if it is intimately involved in the development of the policy responses to the problem (Bellamy and Johnson, 1997).

Notwithstanding the apparent success of Landcare, recent attempts to employ a consultative approach to resolve other major natural resource issues, like water allocation in the Murray River, have proved problematic. The Murray River is one of the iconic riverine environments in the Murray-Darling Basin that occupies over 1 million square kilometers, constitutes home to a human population of about 2 million, and accounts for around 40 percent of the national income derived from agriculture in Australia (Quiggin, 2001, p.68). Degradation of the catchment is now well-documented: for instance, Madden *et al.* (2000) estimate that it would cost A\$65 billion over 10 years to prevent and repair land degradation in the basin and the

Murray-Darling Basin Ministerial Council (MDBMC) (1999) has predicted that 1.2 million hectares of land in the Murray-Darling Basin alone will be adversely affected by salination by 2050.

These problems can be traced to the adoption of western agricultural techniques that gave scant attention to the underlying physical constraints of ancient soils and a history of extractive uses of water taking precedence over almost all other environmental needs (Crase *et al.*, 2004; Watson, 2003). In response to the latter of these concerns, the MDBMC released its *Living Murray* discussion paper in July 2002. In essence, the purpose of the *Living Murray* was to present the case for the allocation of more water to the Murray River for environmental purposes, with the document itself was designed to 'start community discussion about whether or not water should be recovered from water users for the environment' (MDBMC, 2002, p.29). Three main reference points were proposed; 350 gigalitres, 750 gigalitres and 1500 gigalitres.

The release of the *Living Murray* paper was followed by an array of community consultation initiatives, mostly conducted under the auspices of the operational arm of the MDBMC; the Murray-Darling Basin Commission (MDBC). In spite of these arrangements, the Council of Australian Governments (CoAG) announced in August 2003 that member states of the MDBMC had reached a decision to allocate an additional \$500 million over 5 years to address problems of water over-allocation in the Basin. Coincidentally², permanent water entitlements had an approximate market

 $^{^2}$ \$500 million would buy about 500 gigalitres of water at current market rates, irrespective of what the community's preferences might be or the information that might be revealed from a community consultation process. Somewhat ironically, the consultation process has, in part, subsequently moved political rhetoric to a view that water should, in the first instance, be obtained via mechanisms other than the market.

value of between \$850 and \$1000 per megalitre at that time (ACIL Tasman, 2003) and in November 2003 the MDBMC decided that 500 gigalitres of water would initially be required as the first step to restoring the health of the Murray River over the same time period. This culminated in some controversy over whether sufficient and genuine consultation had occurred (see, for instance, Gillespie and Bennett, 2004) whilst others commentators have contended that the process itself had already proved excessively costly and unproductive (see, for example, McDonald, 2003). Emerging from this debate is a more general question pertaining to the optimal effort that should be devoted to any community consultation process.

The present paper seeks to explore this question by developing a rational choice framework for evaluating community consultation in the institutional context of water allocation policies in the Murray-Darling Basin. Although this framework is unashamedly reductionist in its approach, it is nevertheless hoped that it will help focus scholarly attention on the question of optimal consultation processes by public agencies.

The article itself is divided into four main parts. The second section develops an analytical framework for understanding the role of community consultation. A more extensive review of modern Australian water reform and the *Living Murray* debate is provided in part three as a vehicle for implementing the consultation framework. In addition, we critically evaluate the application of the consultation processes adopted by the MDBC and MDBMC in developing the *Living Murray* policy response in this section. The paper ends with some brief concluding remarks on potential improvements in public consultation processes.

2. RATIONAL CHOICE FRAMEWORK FOR COMMUNITY CONSULTATION

The extant literature on the role of community consultation has attempted to isolate the various benefits and resulting incentives that can be ascribed to the community consultation process. For example, in the context of natural resources policy, Bellamy and Johnson (1997) have identified the following beneficial factors:

- Active involvement of the community gives rise to community ownership of the problem and its solution, thereby enhancing the prospects of a sustainable outcome.
- A coordinated decision requires that the community be involved along with government and industry stakeholders.
- If there are economies of scale implicit in some aspects (i.e., 'the whole is greater than the sum of the parts'), then a broad community approach is preferred.
- Community involvement is preferable since people are an integral part of the natural resource problem and not independent of it.
- The community has come to expect that it will be given the opportunity to be involved and this has been commensurate with rising standards of accountability, particularly in the area of environmental protection.

More generally, participation by the citizenry in public policy making has also been hypothesised to give rise to improved 'social justice' outcomes (Munro-Clark, 1992). Involving the community may raise the legitimacy of policy decisions, improve the quality of the decision itself, and thereby realise greater policy efficacy (Holland, 2002). These factors would thus appear to establish a *prima facie* case for encouraging more community participation in almost all circumstances.

Nevertheless, advocating a 'more is better' approach to community consultation ignores the potentially substantial costs of such consultation, in terms of agency budgets, community goodwill, and many other considerations, that circumscribe the consultation process. It is here that the rational choice framework's ability to deal with incremental benefits and costs can be used to good effect to identify (at least in principle) the optimal extent of community consultation. However, several significant caveats first need to be added. Firstly, we make no distinction here between the various forms of community consultation preferring instead to simplify the analysis by treating community consultation as a homogenous activity. Secondly, we assume that the benefits and costs of a given consultation process can be enumerated in a meaningful way to derive a decision rule. Although this is likely to prove a formidable task in itself, we nevertheless contend that it is worth pursuing this line of inquiry and we briefly describe the task below:

2.1 Benefits of Community Consultation

At its most basic level the (economic) benefits of community consultation take two main forms. In the first place, involving the community in a policy decision can reveal information which would otherwise be unavailable to the policy maker; removing or reducing information deficiencies can ultimately give rise to a superior policy in the positive sense. In the context of water resource management in Australia it has been frequently observed that there is a relative dearth of information about riverine systems and our knowledge about the complex 'production functions' that underpin environmental amenity is largely incomplete (see, for instance, DLWC, 1999; Zilberman *et al.*, 1997). Notwithstanding the role of 'experts' in filling these knowledge gaps, an important information deficiency that could be overcome with community consultation continues in relation to the *Living Murray*. More specifically, little is known of the community's preferences for environmental improvements and the unpleasant trade-offs the community is prepared to accept to achieve them. In this context it is worth observing that a project established to quantify such preferences using choice modelling was commenced as part of the *Living Murray* consultation process but was subsequently truncated in response to a range of operational and political concerns (Gillespie and Bennett, 2004).

The second genre of benefit derives from the likelihood that a policy will enjoy wider community acceptance if it is developed in a consultative way. Alternatively, enacting or amending policy frequently entails transition costs and, in some instances, these costs can be curtailed via the community consultation process. Transition costs might be considered as a form of dynamic transaction costs and emanate from the 'friction' created by moving from one set of rules (commonly referred to as institutions in the parlance of New Institutional Economics) to a new set of rules (Challen, 2000). Transition costs arise from constraints relating to the history of institutions and can also be subject to path dependencies. In this context Horn (1995) suggests that devolution of property rights from the dispersed many to the concentrated few has relatively low costs, since the intense preferences of the few encourage them to mobilise political resources to secure and assist in the redistribution. By way of contrast, it is relatively difficult and therefore costly to reverse property rights from the few to the many. Thus, in the context of the *Living Murray* where irrigators

believe that they are being asked to cede their rights over water to achieve an environmental enhancement for the community at large, a consultative process might provide a vehicle for defraying some of these costs.

If we accept initially that the extent of the benefits from consultation vary across only these two dimensions and that the two sets of benefits operate independently in any given context, four alternative benefit scenarios emerge. These can be illustrated in the matrix in Figure 1.



In the northeast quadrant (C) the anticipated benefits of community consultation are likely to be greatest. Here, the information garnered from the consultation effort provides valuable insight for the policy maker and significantly affects the quality of the policy outcome. The suasive powers of consultation are also greatest in this quadrant. By way of contrast, quadrant B would result in only modest benefits from consultation. In this instance, the quantum or quality of information gained by consultation adds little to the policy maker's existing knowledge and disaffected stakeholders/communities are largely unmoved by the effort to engage them in a consultation process. Quadrants A and D illustrate circumstances in which the benefits of consultation are dominated by a single attribute. In the case of quadrant A the information revealed by consultation is of considerable value but the process itself has little impact on the community's attitude to change. Alternatively, a scenario whereby the information provided by the community is of little value (or even inferior to the extant knowledge of the policy maker) but the adverse effects of change are significantly mitigated by invoking consultation is depicted in quadrant D.

2.2 Costs of Community Consultation

Our focus has thus far fallen principally on the benefits derived from a community consultation process. However, consultation also requires considerable effort and cost. Throughout this section the these terms are considered analogous; greater effort on the part of the agency is assumed to equate to greater cost although no detailed explanation of the production function of community consultation is offered. For simplicity we concentrate primarily on the costs to be borne by agencies undertaking a consultation process on the assumption that the extent to which consultation is undertaken is determined by a policy maker who is only cognisant of the internal costs of a given consultation activity.

We further assume that the agency has a 'technocratic' ethos; an assumption well supported by the 'development' doctrine that has typified water resource policy formulation in Australia. Historically, the allocation of Australian water resources has been intrinsically tied to social and strategic objectives associated with regional economic development, such as closer settlement and soldier settlement (Langford-Smith and Rutherford, 1966). This view that predominantly informed water resource policy in Australia until the 1980's (Watson, 1990, p.11) and subsequently led to the conceptualisation of most resource allocation issues as 'technical problems requiring technical solutions'.

If we accept this as at least part of the current institutional culture of the agency, then several different forms of agency costs emerge in the transition to the community consultation model of policy formulation. Broadly speaking, these costs can be grouped into two components: Those pertaining to the effort that is required to alter the approach of agency personnel and the costs of manipulating existing data to make it useful from a community consultation perspective. In relation to the former, Keen (1997) observed that scientists are often wary of community consultation in research projects. Qualitative information collected from a sample of scientists revealed that these concerns emanated, in part, from the need to develop new skills to interact with the community and the belief that such skill acquisition would do little to advance their careers. In the context of the Landcare initiative, widely acknowledged as one of the major attempts to involve the community in natural resource decision making, Campbell (1994, pp.236-237) argued that institutional cultures within research and extension agencies acted against the development of genuine participatory approaches. Specifically in the context of scientists and the organisations that employ them he observes that they 'still measure effectiveness by the number of publications in refereed journals, which very few non-specialists read, or could understand'.

Consultative approaches have also given rise to increased demands for multidisciplinary research (Crean *et al.*, 1999). This has had ramifications for the costs of altering the approach adopted by agency staff. For instance, Mullen (1996) observed that generating cooperation between scientists and economists is often frustrating and expensive. Moreover, he concluded that different choice environments and different methodological approaches were the primary impediments to engendering cooperation between agency staff from different disciplines. These costs can be regarded as being attributable to the requirement for multi-disciplinary research to inform community participation.

In addition to the costs that originate from the necessity to alter the approach of agency personnel, there are also significant costs associated with the modification of agency data to facilitate community consultation. Figure 1 depicted the flow of information from the community to the policy maker (presumably via the agency), as a benefit accruing from consultation. However, in order to generate the second form of benefit (i.e. reduced transition costs), agencies must invariably provide information to the community; since community consultation involves information exchange. As we have already indicated, the form in which these data are presented to the community can be expected to diverge significantly from that required by the technocrat. For instance, in the context of the development of water-sharing plans in NSW, agencies have been pressured to develop alternative scenarios, undertake a range of sensitivity analyses, and consider a wider set of variables than what might have otherwise been included without consultation (Crean *et al.*, 1999).

In contrast to benefits, it is improbable that the two forms of agency costs associated with community consultation might ever operate independently³. For example, imagine an agency where the personnel, regardless of their disciplinary background, are largely receptive to the notion of community consultation. The task of manipulating data to accord with this approach is likely to fall to these same personnel who, given their favourable disposition, can be expected to seek economies in the process. However, an agency characterised by personnel resisting community consultation.

Combined with an acceptance that personnel within any given agency are likely to be heterogenous in their attitude to community consultation, this suggests that the costs of community consultation will be related to the extent to which the agency attempts to expand this policy formulation mode. Put simply, as community consultation is expanded within an agency, costs can be expected to rise, probably in a non-linear fashion. Notwithstanding the capacity of agencies to 'contract in' personnel disposed to community consultation (which carries its own costs), as those personnel and data least amenable to this approach are drawn into the consultation process, the marginal costs of consultation increase.

2.3 Optimality and Divergence

The earlier discussion pertaining to benefits and costs and their variable nature suggests that the 'efficient' policy maker will undertake or promote community consultation to the point where the marginal benefits of the process equal the marginal costs of obtaining those benefits. In practice this will be constrained by imprecision in

³ The potential for covariance between the benefits of consultation is addressed later in this paper.

adjudging the relative benefits and costs of any incremental change, but conceptually the optimality approach provides a useful starting point, not least for its capacity to identify and articulate possible sources of sub-optimal behaviour.

There is support for the view that the extent of consultation seems to bear little correlation with the benefits or costs of the process. Whilst this question is given greater attention in the context of water policy formulation in next section, we now endeavour to shed light on those factors that might give rise to this apparently sub-optimal behaviour by drawing on notions long-used to explain sub-optimal behaviour in a market setting (i.e. market failure).

2.4 Externalities

The term 'externality' is used by economists to describe incidental spill-over effects for which agents involved in a transaction make no allowance; uncompensated pollution of the environment by manufacturers being perhaps the best-known example of a negative production externality. The Pigovian solution to such problems involves the use of taxes or subsidies to alter individual behaviour so as to accord with the optimal solution for the community as a whole. By way of contrast, the Coasian response emphasises adequate assignment of property rights as a vehicle for encompassing externality considerations into the individual's self-interested actions (see, for instance, Wallis and Dollery, 1999).

In the context of community consultation, both positive and negative consumption and production externalities externalities are feasible. For instance, suppose an agency is charged with undertaking a consultation process as a criterion for the introduction of a major policy reform. This agency may consider the benefits of the consultation to be confined to the South-West quadrant in Figure 1. However, the commencement of a consultation process can empower communities and build social capital beyond that which is relevant to the agency or the present decision. Social networks and alliances can emerge from a consultation that endure far beyond the current decision-making context and may provide a useful sounding board for other policy reforms. Thus, the agency may tend to under-invest resources relative to the benefits of the consultation activity since it does not directly capture the spill-over benefits generated.

Alternatively, negative externalities may arise from a consultation activity, particularly if the agency does not bear all pertinent costs of the consultation process. Consultation requires input from stakeholders, some of whom are more likely to be affected by a given decision than others. However, agencies tend not to make this distinction, especially at the commencement of a consultation process for fear of alienating significant groups. The result may be that all stakeholders (at least initially) are required to carry some costs of consultation in order to determine if they are likely to be affected by the policy decision and make contingency plans accordingly. This consequent divergence between the costs of consultation (carried by stakeholders) and the incentive for agencies to define stakeholders liberally can foster negative externalities. In essence, these arrangements are likely to give rise to an over-investment in consultation by members of the community relative to the probable global effects of the activity.

2.5 Public goods

The arguments concerning externalities have some bearing on the notion of public goods and their generation by community consultation. Pure public goods are defined by two criteria; non-rival consumption and non-excludability. Accordingly, since the consumption of the good by one citizen does not affect what is available to other consumers, the true cost of additional consumption is zero. Moreover, because it is not possible to prevent individuals accessing such goods for free, the incentive for private production (i.e. appropriating a return) is removed. These two attributes imply that private markets under-produces public goods and state provision thus becomes critical.

In common with externalities these public goods can be viewed in the context of inadequately assigned property rights. Just as negative externalities are generated because individual agents make no account of the harm they cause to others, the public good 'problem' arises because the existing property rights arrangements do not adequately account for non-rivalry and non-excludability. Thus, the argument used in the context of externalities to explain why agencies might under-invest is equally applicable in the context of those public goods that are generated by community consultation. More specifically, the social capital, networks and alliances generated by community consultation frequently have public good attributes.

2.6 Increasing returns to scale and market power

The optimality generated by the market paradigm is, in part, premised on an assumption that increasing returns to scale do not dominate the relationship between outputs and inputs in the longer term. In the context of the market paradigm

increasing returns to scale implies that firms (or buyers) can leverage a production advantage into market power.

We have already discussed the cost relationships pertinent to community consultation, noting that the two attributes of cost – personnel and data – were unlikely to act independently. This suggested that, in the short run at least, costs would rise exponentially as the agencies consultation activities expanded. By way of contrast, economies of scale require that in the longer term expanding inputs into community consultation give rise to disproportionate gains: Larger agencies should be more adept at consultation than smaller agencies over the long run. Anecdotally, larger agencies might be expected to have more refined resources and a wider range of consultation experiences to draw upon. However, there seems to be no compelling evidence to indicate that this holds widely.

Nevertheless, there are other grounds upon which it is possible to establish a *prima facie* case for some economies of scale in community consultation. Up to this point, we have portrayed the benefits attributable to consultation (i.e. reduced information deficiencies and reduced transition costs) as independent factors. However, it is also plausible that there exists significant covariance between these attributes that would give rise to non-constant returns. For example, imagine a circumstance where the community believed that it had important information that policy makers had then ignore in the policy formulation process. It is possible that the community might respond by raising the transition costs of policy implementation. On the other hand, by actively seeking and gaining community input to reduce transition costs, an agency might discover information of which it was unaware through the largess of the

community. In effect, the latter of these events could be construed as a form of demand-side economies of scale; the greater and more effective the consultation, the more users benefits from the process, giving rise to greater future consultation and so on. The primary implication of this phenomenon from an agency perspective is that it increases the complexity of establishing the optimal level of consultation in advance and increases the probability that agencies will either under or over-invest in the activity.

2.7 Information failure

Akerloff (1970) showed how asymmetric information may undermine the efficient operation of the market. Similarly, the development of the transaction costs literature has demonstrated the importance of robust and accurate information as a vehicle for reducing sub-optimal outcomes in a range of settings. For example, in its simplest form search, negotiation and enforcement costs are all reduced if the information available to participants is enhanced, the result being increased welfare generation.

The transaction cost method of analysis has gained sufficient popularity as to redefine optimality as a state that minimise transaction costs. In this context policy reform then becomes a process of attempting to develop institutional arrangements that are characterised by ever diminishing transaction costs (Challen, 2000). However, just as the market participants must contend with uncertainty and information deficiencies, so too must the reforming policy maker. Moreover, if we accept that agencies and policy makers generally act to maximise the welfare of society⁴ all of the previously described 'failures' in this section become manifestations of attendant information

⁴ A claim challenged by the extensive discourse on government failure (see, for instance, Wallis and Dollery, 1999).

deficiencies. For instance, an agency would not deliberately under-invest (in the case of beneficial externalities and public goods) or knowingly over-invest (in the case of negative externalities) *if* it was motivated by welfare maximisation *and* had access to complete and perfect information. Similarly, if the citizenry had perfect information about agencies, then they would not sanction any activities by bureaucrats and legislators that diverged from an optimal state. Accordingly, the roots of any sub-optimal effort on the part of an agency engaged in community consultation might all be characterised as different forms of information failure.

Whilst conceptually this approach has some merit, its application has usually proved to be problematic, not least because of the difficulties involved in measuring transaction costs and depicting the relationships between enhanced information, transaction costs and the necessary institutions to secure any improvement. Nevertheless, we contend that that agencies will commonly fail to select the optimal effort for a consultation activity for at least three reasons deriving from informational deficiencies. Firstly, agencies and policy maker are unlikely to be able to accurately predict what they will learn from the process or the extent to which transition costs will be reduced by any consultation effort. Secondly, agencies are unlikely to have sufficient knowledge to anticipate how much it will ultimately cost them once an issue is open to public scrutiny. Thirdly, there is no compelling evidence that community consultation follows an ergodic process, where subsequent consultations become more accurately predicted and errors successively reduced. Put differently, each consultation may be sufficiently unique as to render earlier consultations on different topics with different stakeholders ineffective as an indicator of likely benefits and costs

3. WATER REFORM, COMMUNITY CONSULTATION AND THE LIVING MURRAY

The debate surrounding the allocation of water resources in Australia has steadily intensified over the past few decades. In the 1980's there was a paradigmatic shift away from the 'development' philosophy that saw water as a resource to be harvested for use in agricultural and urban contexts. Two major influences over the water debate have subsequently emerged. First, there has been recognition that the development paradigm was unsustainable in the longer term because of declining environmental quality and its impact on extractive users. Secondly, there have been changing community preferences for enhanced environmental amenity, particularly for riverine landscapes. Both of these forces have culminated in a water 'management' ethos that requires effort to balance the competing demands of extractive and non-extractive users, use and non-use benefits, and the public and private good dimensions of water.

In response to these broad demands, there have been several substantial reforms to water resource allocation in Australia over the last decade. These include the following:

- Commencing in 1995, the MDBMC imposed a 'cap' on water diversions at 1993/94 levels after an audit in 1994 revealed significant growth in water extractions resulting in deleterious impacts on the riverine environment (DLWC, 1997, p.1).
- The CoAG Agreement on Water Resource Policy (or Water Reform Framework) in February 1994, and later the Competition Principles Agreement in April 1995 also contained a range of significant reforms. These

encompassed establishing prices to fully recover costs, recognizing that the environment has a legitimate demand on the resource, separation of delivery and resource management functions and breaking the nexus between land and water rights to foster water trade.

- Numerous legislative changes at the state level have occurred, generally sympathetic to the thrust of the initial CoAG reforms. This has been manifested in the NSW Water Management Act (2000), the Queensland Water Act (2000), and Victoria has made amendments to the Water Management Act (1989) and also introduced the Water (Irrigation Farm Dams) Act 2002.
- In August 2003, in the midst of the deliberations over outputs of the consultation processes pertaining to the *Living Murray*, CoAG announced agreement on a National Water Initiative. The core elements of this program are the development of nationally compatible water entitlements, the establishment of a nationally functioning water market, arrangements for integrating management of environmental water (including using water markets), enhanced measures to develop a water accounting framework and accelerated urban water reforms. A critical component of the National Water Initiative announcement in the context of the *Living Murray* was that member jurisdictions of the Murray-Darling Basin revealed that they had settled on allocating \$500 million over the next five years to address the declining health of the Rivers in the Basin, particularly the Murray River (CoAG, 2003, p.1).

In sum, considerable preceding and concurrent activity surrounded the invitation from the President of the Murray-Darling Basin Commission for 'any person or groups concerned about the health of the River Murray, its industries and communities ... to contribute to [the *Living Murray*] ... debate' (MDBMC, 2002, p.4). Nevertheless, the MDBC commenced its 'community engagement processes' under the auspices of the Independent Community Engagement Panel in July 2002 in line with its earlier commitment 'to hold a community-wide consultation process about environmental flows' (MDBMC, 2002, p.9).

3.1 Community engagement, the Living Murray and the economics of consultation In the context of the rational choice framework developed earlier, the function of each of the proposed stages of consultation is of particular significance. Stage 1 of the process was assigned the title 'Inform and Engage' and focussed ostensibly on those communities most likely to be severely affected by any decision. This stage was intended to 'inform the community of the work and knowledge that ha[d] led to the recognition of the need for the Australian community to consider what it wants for the future of the River Murray' (MDBMC, 2002, p.51). Simultaneously, it was also anticipated that this stage should 'inform the MDBC of [the community's] knowledge, values, aspirations, issues, information needs and concerns'. On the basis of this description it would appear that the initial stage was attempting to garner the benefits of consultation by both reduced transition costs (i.e. by providing the extant scientific knowledge to the community detailing the extent of the problem) and enhancing the information upon which to base any policy response (i.e. by filling knowledge gaps for the policy maker, particularly about the community's attitudes and preferences). Put differently, the initial benefits of community consultation for the Living Murray project appear to have been perceived to reside in the North-East quadrant (C) of Figure 1.

Stage 2 of the community engagement process emphasised the development of alternative propositions to address the issue of environmental flows in the River Murray. However, this stage was to have employed a broader focus, relative to stage 1, by seeking to include the views of 'the wider Australian community' (MDBMC, 2002, p.51). Stage 2 envisaged that the community and government agencies would collaboratively evaluate the implications of the three environmental flow reference points (350, 750 and 1500 gigalitres respectively), offer ways to progress towards a preferred option and establish the requirements for monitoring and managing the impacts of any decision. This stage was to culminate in an informed decision being made by the MDBMC in October 2003. The notion of 'the community and government agencies working together' (MDBMC, 2002, p.51) supports the view that stage 2 expected that the benefits of consultation would accrue predominately from a reduction in transition costs. In the context of the earlier framework, this suggests that the benefits of consultation emanating from stage 2 were anticipated to reside in either of the Southern quadrants of Figure 1 (D or B).

'Implementation' was the focus of stage 3 of the community engagement strategy and consisted of a plan to negotiate details and timeframes for enacting the final decision (MDBMC, 2002, p.8).

The costs of consultation were expected to be (and have likely proved to be) substantial. The MDBC distributed more than 20,000 brochures and hosted in excess of 40 public meetings across the Basin (Tippet and Fyfe 2003, p.1). An extensive web site including a log of issues was created. In addition to establishing the Independent Community Engagement Panel, the MDBMC also founded a Community Advisory

Committee, a Scientific Reference Panel, and numerous other formal and informal linkages with sectors of the community. In the context of the rational choice framework outlined earlier, these investments would appear to have been premised on the idea that the expected benefits, particularly from stage 1 and 2 of the community engagement strategy, would be considerable.

3.2 An assessment of the outcomes of community engagement in the Living Murray

Notwithstanding the original perceived benefits of the community engagement strategy, these processes have attracted strident criticism from several quarters. McDonald (2003) contends that "the much touted 'community consultation' process [...] has set a new benchmark for tokenism". Similarly, when stage 1 was being implemented Tippet and Fyfe (2003, p.5) observed that "disquiet that the consultation phase has not properly engaged people led to environment ministers...agreeing to push the timetable back to give people more time to consider the scientific reports". Likewise, at one of the forums organised by the MDBC "the meeting expressed its deep distrust of the process, lack of confidence in the science and absolute rejection of the time frame" (Tippet and Fyfe, 2003, p.5). In light of these criticisms the question arises as to 'what went wrong'? Put differently and in the context of the framework offered earlier, what were the failures that gave rise to a sub-optimal outcome from community consultation?

The answer to this question resides with at least three of the sources of sub-optimal consultation proffered in section 2; namely non-constant returns to scale, externalities and information failures. In addition, it is possible that there were significant

interactions between these elements that further exacerbated the efforts of the agency to achieve an optimal outcome.

3.3 Non-constant returns to scale

We observed earlier that the benefits of stage 1 of the *Living Murray* community engagement strategy were presumably most likely to arise from the North-East quadrant of Figure 1. More specifically, transition costs were expected to be lower as a consequence of the community becoming aware of, and confident in, the information underpinning any decision. Simultaneously, the agency (MDBC) was expected to benefit from increasing its knowledge of the community's attitudes and preferences. However, in the case of the *Living Murray* both of these presumptions proved to be misplaced.

This miscalculation can be traced to several sources. Firstly, the scientific understanding of the workings of the Murray River is largely incomplete and this undermined the attempt to 'inform' the community in stage 1. This should not be interpreted as a criticism of the science *per se* but rather the failure of the consultation process to adequately convince the community of the value of an adaptive management philosophy.

Adaptive management is a prerequisite for effectively dealing with the types of problems confronting the River Murray but, by definition, agencies and politicians must acknowledge that they do not know 'the answer' if such an approach is to prove effective (Pagan and Crase, 2004). The community then needs to accept this as a reasonable response to dealing with the issue. Unfortunately, the community has long

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been conditioned to believe that politicians and agencies have access to the immutable truth and selling adaptive management to the community (and to some politicians) in this instance proved more difficult than first anticipated. The failure of the community engagement strategy to adequately inform the community of the importance of adaptive management culminated in a range of alternative scientific reports and opinions about the current and predicted environmental condition of the Murray (see, for instance, Marohasy, 2003; Benson, 2003). In essence, had the community engagement strategy adequately informed the community about the principles of adaptive management, the suasive power of alternative and conflicting scientific predictions would have been substantially mitigated⁵.

Whilst the attempt to 'inform' the community in stage 1 was being undermined by the perception that the knowledge being offered by agencies was flawed, there was also mounting cynicism about the extent to which the agency was genuinely interested in understanding the community's values and preferences. The use of environmental flow reference points may have simplified some of the accompanying scientific analysis but it also proved to be a source of cynicism, insofar as public attention was drawn to the apparent arbitrary nature of the 350, 750 and 1500 gigalitre metrics. Similarly, the concentration on volumes of water rather than other attributes, such as frequency and variability, led others to argue that the true impacts on the community (and the environment) were not being given serious consideration (see, for instance Watson, 2003).

⁵ It is our contention that conflicting views and opinions would be regarded as the norm by a community that was familiar with the adaptive management ethos.

Perhaps the most notable evidence that the agency might be paying only 'lip-service' to acquiring an understanding of the community's values was the decision to suspend an important element of the socio-economic analysis accompanying the community engagement agenda. A choice modelling element had originally been included in the socio-economic assessment of the impacts of the various reference points. A choice model offered several advantages in the context of the Living Murray; it could have been used as a vehicle to inform the public, it would provide empirical substance to the trade-offs that the community might be prepared to make. and ultimately may have assisted in optimising the manner in which flows were managed. Regardless of these advantages, the choice modelling project was prematurely suspended. Amongst the apparent reasons for this decision were the agency's concerns that the choice experiment required the community to confront the reality of a payment vehicle and it also involved 'consulting' (via the questionnaire) with about 6,000 individuals (Gillespie and Bennett, 2004). A prominent commissioner at the time of this decision later publicly mused that the bureaucrats had already worked out what the community's preferences were without the choice model (Chloe Munroe, 12 February 2004, per com).

The perception from many within the community was that the information flow from the agency was both faulty and selective and the information returning to the agency from the community was being largely ignored. Instead of a virtuous cycle, where greater understanding by the community led to a wider appreciation of the problem and potential solutions, a vicious cycle became apparent. This can be likened to the covariance between benefits depicted earlier leading to diseconomies of scale.

3.4 Externalities

There is also some evidence that the MDBC misjudged the costs that would need to be borne by others as part of the consultation process. For instance, the meetings of the Community Advisory Committee usually involved extensive and self-funded travel and accommodation for most of the 100 plus attendees. There would also appear to have been a lack of empathy about the community costs of the earlier and concurrent reforms described above. McDonald (2003) specifically observed in this context that 'this whole process has been thrust upon a reform-fatigued community in the middle of the worst drought we have ever experienced' (McDonald, 2003, p.1)

3.5 Information failures

The earlier discussion in this section highlighted some of the deficiencies in the flow of information between the community and the agency and *vice versa*. In addition, there were apparent information deficiencies within the agency in the conduct of the consultation process. The activities of the Community Advisory Committee provide one illustration of the problem. At the meeting of the Community Advisory Committee in December 2003 input was sought on the appropriate mechanisms for 'communicating and informing the community' and the 'key questions that communities want information on' (MDBC, 2004, per com). This issue was raised 4 months after CoAG had already announced the decision of MDBMC jurisdictions to allocate \$500 million to restore riverine health and one month after the MDMC had committed to a 'First Step' of returning 500 gigalitres to the River Murray. Put differently, the Community Advisory Committee was discussing how to engage the community almost a year after stage 1 of the community engagement strategy had commenced the process of 'informing and engaging the community'. In sum, there is

compelling evidence of a lack of information flowing between the various bodies concerned with the consultation tasks in the *Living Murray*.

4. CONCLUDING REMARKS

Throughout this paper we have endeavoured to bring a rational choice perspective to bear on the process of community consultation. We have argued that the shift towards greater involvement of the community in public policy formulation is justified (in an economic sense) by the benefits of enhanced information upon which to develop public policy and reduced transition costs that arise when the community is incorporated into the decision making framework. Notwithstanding the benefits of engaging the community in public policy, we have also emphasised that such activities carry direct agency costs. Changing the role of personnel and altering data are expected to be two of the major direct costs for agencies.

We have subsequently argued that there is at least theoretical support for the notion of an optimal level of effort to devote to any community consultation activity. Ascribing an optimal solution to the consultation problem then provides a convenient mechanism for analysing the circumstances that might lead to a sub-optimal effort on the part of any agency. In this regard we contend that the various forms of market failure that drive sub-optimal outcomes in private sector transactions have analogous instances in the conduct of consultation activities by state agencies. More specifically, we predict that agencies will fail to equate the marginal benefits and costs of a given consultation in some cases because of their inability to adequately incorporate externalities, the public good nature of some aspects of consultation, the existence of non-constant returns to scale in the 'production' of consultation, and information deficiencies that circumscribe the process.

Observations drawn from the attempts of the MDBMC and MDBC to engage the community in the *Living Murray* process have provided some insight into how the rational choice framework can be employed to critically evaluate the *ex post* outcome of a public consultation activity. In this instance, the framework has provided a useful vehicle for highlighting extant flaws in the manner in which water policy has been formulated in the Murray-Darling Basin on this issue. Nevertheless, a more productive use of the framework might be its widespread acceptance in an *ex ante* sense. We specifically contend that agencies would make better use of the community consultation process if they were to plan their consultation activities with the rational choice framework in mind rather than incorporating consultation. This would generate benefits in the form of enhanced efficiencies in use of the public funds that are required to support consultation activities and raise the efficacy of policy in the eyes of the community whom it is purported to assist.

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