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Mainstreaming deliberative principles in Environmental Impact Assessment: current practice and future prospects in the Great Barrier Reef, Australia

Claudia F. Benham[a,*], Karen E. Hussey[b]

[a] College of Science and Engineering, James Cook University, Townsville, Australia
[b] Centre for Policy Futures, The University of Queensland, Brisbane, Australia

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ABSTRACT

The Great Barrier Reef (GBR) is a highly complex social-ecological system that is under pressure from a variety of human activities, including coastal development for industrial purposes. A 2012 World Heritage Committee review found that the speed and scale of large industrial developments along the GBR coast exceeded the capacity of governments to manage their impacts. Ameliorating the impacts of large developments in the GBR is likely to require changes to the Environmental Impact Assessment (EIA) processes that form the centrepiece of Australian environmental legislation. As part of this, environmental managers must find ways to ensure that EIA decisions reflect both best-available science and community concerns. It has been suggested that innovative forms of structured decision making, such as public deliberation, could democratise impact assessment decisions, and could be accommodated within existing EIA processes, but the literature on this question is predominantly theoretical. In this paper, we explore the extent to which participatory and deliberative approaches have been integrated into existing EIA processes, using data from a survey of local residents in an area of the Great Barrier Reef coast undergoing rapid industrial development. We find that current processes provide few formalised opportunities for deliberative engagement, but that the principles of deliberative democracy could provide a foundation for more robust decision making, provided that such processes are part of an adaptive strategy of review over the life of a project, combined with genuine openness on the part of proponents and regulators to accept and respond to community knowledge. We elaborate on this through discussing a series of principles to support the integration of deliberative practices into EIA decision making.

1. Introduction

As the largest coral reef ecosystem in the world, the Great Barrier Reef is a highly complex social-ecological system characterised by intricate feedbacks and intensive human usage. Effective long-term management of the Reef therefore relies on understanding the complex ecological, social and economic processes that sustain and transform the Reef and the people who depend on it (Day and Dobbs, 2013; Gooch et al., 2017). In recent years, rapid growth in the Australian natural gas export industry and subsequent expansion of industrial port facilities along the Reef coast has brought the industry into close contact with the marine environment, and coastal communities, which has consequently raised concerns about the capacity of existing governance processes to successfully predict and manage impacts fairly and sustainably, including accounting for local knowledge, values and priorities (Douvere and Badman, 2012; McGrath, 2012; Benham, 2016).

EIA is a proactive governance tool used to account for and manage the impacts of industrial, commercial and residential development (Zuhair and Kurian, 2016). Recently, advances in EIA theory and practice have brought public participation to the fore (see for example, Esteves et al., 2012). It is now widely recognised that although scientific information is critical to robust decision making (Sheaves et al., 2016), it generally forms only one element of contemporary environmental governance. As Pietri et al. (2011: 303) point out, "ultimately… policy choices are likely to revolve around values". Participatory governance can strengthen public decision making by feeding local knowledge into governance processes, reducing conflict between competing interests, building trust in institutions, and increasing stakeholder buy-in and implementation capacity (Beierle and Cayford, 2002; Fischer, 2000; Hajer et al., 2003, cited in Wiklund, 2005:281; Lockie, 2007). Local community knowledge can shed light on local values and uses of marine resources, and provide a long-term perspective on environmental change, particularly for highly visible changes in water quality, health and abundance of critical fish and megafauna species, and critical habitats (Larson et al., 2015; Benham, 2016). In the case of resource developments, public participation also

* Corresponding author.
E-mail address: claudia.benham@jcu.edu.au (C.F. Benham).

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plays a key role in granting proponents a 'social license to operate' (Prno and Slocombe, 2012). As a result, governments are increasingly seeking to provide avenues for citizens to participate directly in public decision making (Blomgren Bingham et al., 2005). These include statutory measures such as submissions and expert committees, and quasi- or extra-legislative mechanisms such as the establishment of private-public partnerships; public consultative meetings and other collaborative decision making approaches (Blomgren Bingham et al., 2005; Huitema and Turnhout, 2009). The integration of local knowledge and values into decision making varies among governance domains, however, and top-down processes such as impact assessment remain largely the domain of experts and elite decision makers, albeit with some notable recent advances in participatory approaches (see Esteves et al., 2012; Glucker et al., 2013).

Public engagement with the EIA process occurs predominantly through written submissions, supplemented with voluntary, industry-led activities falling broadly under the umbrella of Corporate Social Responsibility (CSR; see de Rijke, 2013; Bice, 2015). Although the importance of public participation in EIA has been recognised for many years (see Shepherd and Bowler, 1997), the implementation of participatory processes remains highly uneven and there are disagreements among practitioners as to how much public engagement should be undertaken, with whom and in what format (see Clarke and Harvey, 2008; Glucker et al., 2013). Conventional approaches to EIA provide few formal opportunities for public knowledge or scientific information to be transmitted to government decision makers, particularly after a project approval has been granted (Cashmore, 2004; Benham, 2016). Furthermore, resource development is frequently characterised by "disagreement on knowledge, norms or values, low levels of trust… uncertain cumulative impacts, involving or resulting in marginalised people and interests (intensifying distrust)…and methods of participation [that] have resulted not in learning, but in manipulation, therapy or placation" for communities (Hurlbert and Gupta, 2015:105). The perceived inadequacy of opportunities for genuine participation in impact assessment can manifest in strong public opposition to new public policy proposals and developments, both those in favour of environmental protection (such as the declaration of new Marine Protected Areas, see Voyer et al., 2012) and those perceived as posing risks to biodiversity and human communities, such as resource developments. Recently in Australia, community opposition to gas and coal mining development has resulted in legal challenges to mining approvals, the suspension of a gas production license and calls to suspend approval for offshore gas exploration (Organ, 2014; Australian Broadcasting Corporation, 2015; Brennan, 2015; Newcastle Star, 2018).

The EIA process is not alone in being vulnerable to conflicts between the prerogatives and values of scientists, community stakeholders and government managers (Brugnach and Ingram, 2012; Cvitanovic et al., 2015), but it has been specifically criticised for deficiencies in proactive power-sharing and responsiveness to community values (see for example Beattie, 1995). Writing about the United States' National Environmental Policy Act (NEPA), Baber and Bartlett (2005:25-6) observe that "[l]itigation under NEPA has been a continuous process from the act's inception. These actions commonly alleged that an EIS was not done but should have been or that an EIS that was done was inadequate". A failure to devolve genuine decision making authority from government to citizens can contribute to perceptions that participation has not been adequate or sufficiently transparent (Konisky et al., 2001; Sinclair and Doelle, 2003). As Voyer et al. (2012: 433) point out:

> "Frustratingly for public officials, it is not uncommon for decisions taken by governments to be criticised over a lack of consultation or participation despite extensive and exhaustive efforts to engage local communities. This, perhaps, reflects a view that, despite being given numerous opportunities to 'have their say', stakeholders feel their views have not been listened to".

In recent decades, democratic deliberation has developed as an approach for building consensus among diverse or polarised stakeholder groups (see Niemeyer, 2004), promoting transparent and fair consensus-building among stakeholder groups (Niemeyer, 2004; Hartz-Karp, 2005) and strengthening the legitimacy of public decisions (Baber, 2010:198–199). Deliberative democracy can be considered a form of delegated power that both "induces reflection on preferences, values and interests in a non-coercive fashion [and] …involves a decision binding on the participants or those for whom the participants are authorized to speak" (Mansbridge et al., 2010: 65). In deliberative processes, citizens meet to discuss and debate the relevant facts from multiple points of view, consider options, and make decisions together. Discussion is based on the "giving of reasons for or against positions" (Dryzek, 2017:612). In practice this can include "the telling of stories, humour or various sorts of rhetoric" (Dryzek, 2017:612), provided that these appeal to shared values (Raymond and Kenter, 2016) and emphasise broader societal benefits. Genuine deliberation requires broad representation of all relevant stakeholder groups, and a robust decision making process in which all participants respect alternative viewpoints and are willing to revisit their own viewpoints. The process embeds engagement with and reflection on a wide range of information. Participants must be willing to engage in genuine dialogue with each other, avoiding coercion. Lastly, decision makers must be willing to consider and implement the decision(s) of the deliberative forum. The normative goal of deliberative democracy as a social practice is to "strengthen… citizen voices in governance" and "see the result of their influence on…the policy and resource decisions that impact their daily lives and their future" (Deliberative Democracy Consortium, 2003 in Hartz-Karp, 2005:1; see also Baber and Bartlett, 2005; Dryzek, 2009; Stevenson and Dryzek, 2012). Although much of the past literature on deliberative democracy has focused on small-group deliberations, it is increasingly recognised that deliberation occurs outside of these spaces, and that deliberative systems approaches that link elites with citizens can strengthen the deliberative capacity of existing institutions (Mansbridge et al., 2012; Hendriks, 2016). As Raymond et al. (2014) point out, approaches for public engagement can be seen as part of a continuum formed at one end by highly instrumental approaches involving minimal reflection and discussion, and at the other by highly deliberative approaches (an extension of Arnstein's 1969 Ladder of Citizen Participation; see also Papadopoulos and Warin, 2007).

It has been argued that EIA is an ideal forum for deliberation, as the process implicitly provides an arena for "encounters between experts and ordinary citizens" (Wiklund, 2005: 289, see also Petts, 2003; Eckersley, 2004; Wiklund, 2005; Craik, 2007; Baber and Bartlett, 2005). However, there remain significant barriers to integration between environmental practice and deliberative theory (Baber, 2010). The vocabulary of deliberative democracy, which has emerged from the theoretical political sciences, is largely unfamiliar and inaccessible to policymakers and managers (Baber and Bartlett, 2005; Wiklund, 2005; Baber, 2010; Lövbrand and Khan, 2010:49). Limitations on access to peer-reviewed journals ("paywalls") and other academic texts also play a role in limiting the dissemination of deliberative theory among practitioners (Cvitanovic et al., 2015). Declining financial and human resources in government agencies in combination with industry campaigns to reduce "green tape" have been linked to an outsourcing of risk-assessment and participatory processes to the private sector, allowing proponents greater control over the scope and setting of participatory processes (de Rijke, 2013; Benham, 2016). Finding alignment between the many different interests involved in large industrial developments is challenging and EIA processes may be highly politicised (e.g. Kruopienė et al., 2009). Furthermore, devolving decision making authority to local communities is rare in EIA and can be confronting for decision makers more familiar with expert-based models of decision making (Fischer, 2000).

1.1. Scope and purpose of this paper

Notwithstanding the challenges associated with introducing deliberative practices into mainstream EIA processes, public concern over the legitimacy of EIA decision making in relation to resource projects