



Public participation and environmental impact assessment: Purposes, implications, and lessons for public policy making

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ABSTRACT

In recent years the need to enhance public participation in Environmental Impact Assessment (EIA), and the efficacy of alternative mechanisms in achieving this goal, have been central themes in the EIA literature. The benefits of public participation are often taken for granted, and partly for this reason the underlying rationale for greater public participation is sometimes poorly articulated, making it more difficult to determine how to pursue it effectively. The reasons for seeking public participation are also highly diverse and not always mutually consistent. There has been limited analysis of the implications of different forms and degrees of public participation for public decision making based on EIA, and little discussion of how experience with public participation in EIA relates to debates about participation in policy making generally. This paper distinguishes various purposes for public participation in EIA, and discusses their implications for decision making. It then draws on some general models of public participation in policy making to consider how approaches to participation in EIA can be interpreted and valued, and asks what EIA experience reveals about the utility of these models. It argues that the models pay insufficient attention to the interaction that can occur between different forms of public participation; and to the fact that public participation raises issues regarding control over decision making that are not subject to resolution, but must be managed through ongoing processes of negotiation.

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1. Introduction

Even a cursory glance at recent writing on EIA and related decision making processes shows that the issue of public participation in EIA is a major focus for scholars and practitioners (Chavez and Bernal, 2008; Cooper and Elliott, 2000; Del Furia and Wallace-Jones, 2000; Devlin and Yap, 2008; Diduck and Mitchell, 2003; Doelle and Sinclair, 2006; Hartley and Wood, 2005; Kapoor, 2001; Lockie, 2001; Lockie et al., 2008; Mayoux and Chambers, 2005; Morrison-Saunders and Early, 2008; Stewart and Sinclair, 2007). While some scholars do indicate that public participation can in certain circumstances have negative consequences (Cooper and Elliott, 2000, p. 342; Lawrence, 2003, p. 270–71), the overwhelming view is that it is highly desirable and that the key issue for scholars and practitioners is to find ways of making it more effective. For instance Stewart and Sinclair (2007, p. 161) state that 'The benefits of public participation have been clearly described in both theoretical and practical terms ... [but] the design and implementation of specific public participation programs remain contentious'. Similarly, Hartley and Wood (2005, p. 333) state that while public participation 'is widely documented as being a valuable component of the EIA process', debate continues about how to undertake it (see also Chavez and Bernal, 2008, p.167; Cooper and

Elliott, 2000, p. 342; Daneke et al., 1983; Doelle and Sinclair, 2006, p. 186; Lemon et al., 2004, p. 191–92; Lockie et al., 2008, p. 178–80; Vanclay, 2003).

Perhaps because its benefits are assumed to be obvious and substantial, the specific rationale for seeking greater public participation is not always clearly articulated. In many cases multiple purposes are listed without differentiation between them or without discussion of how they relate to each other, or of whether certain potential benefits are omitted because they are not considered significant. For instance Momtaz and Gladstone (2008, p. 223) include in the objectives of public participation 'sharing information, involving the community at an early stage of decision making, taking community aspirations into considerations and giving the community the ability to influence the outcome of decision making'. Stewart and Sinclair (2007, p. 162) envisage an even wider range of benefits, including access to local knowledge; broadening the range of solutions considered; avoiding costly litigation; strengthening the democratic fabric of society; acting as a vehicle for individual and community empowerment; and promoting broadly-based individual and social learning, so enabling the transition to sustainability (see also Andre et al., 2006; Chavez and Bernal, 2008, p. 168–69; Del Furia and Wallace-Jones, 2000, p. 460–61; Lockie et al., 2008, p. 178–80; Peterlin et al., 2006, p. 184–86; Sinclair et al., 2007, 400–01; Yang, 2008, p. 93–98).

A number of problems are associated with the identification of multiple objectives and the assumption that the key issue involved is

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how to pursue effective participation. First, many of the objectives involve quite different concepts, activities and consequences. For instance sharing information with the public is a very different matter to allowing a community to influence government decisions or 'empowering' individuals and communities. Given this fact, it is difficult to see how one can pursue the issue of 'effective participation' without first differentiating clearly between different goals and considering what each involves and implies. Second, reflecting the fact that the term can encompass many different things, the consensus implied in the literature regarding the benefits of participation is in fact more apparent than real (Lawrence, 2003, p. 272). In the real world of public policy decisions, the issue of public participation is contested and highly political. To cite a specific case, Chinese authorities may well be keen to promote public participation if it improves the quality of information available to government decision makers, but may not respond at all well to Yang's call (2008, p. 97) for the public to be 'given power to contribute to and influence decision-making by participating in the formulation of a proposal, the whole EIA process, the implementation and the evaluation of a proposal' (Tang et al., 2008).

A third issue is that even some of the individual objectives identified in the literature are complex and require careful definition and analysis. For instance a frequently-cited goal is to allow community aspirations or priorities to be taken into account in decision making. Yet such a requirement could encompass many different approaches, from treating community views as one of numerous variables considered in decision making, to immediately excluding options that fail to win community support (Becker et al., 2004; Devlin and Yap, 2008; Lockie, 2001).

Another difficulty is that the possibility that different facets of public participation would interact is rarely acknowledged. It seems to be assumed that use of public participation to enhance the quality of empirical information for decision makers, for instance, can occur independently of its use as a tool of community empowerment. In the rare cases where the potential interaction between different forms of participation is recognised, its treatment tends to be perfunctory and to assume that these aspects are likely to reinforce each other in a positive manner. For example Sinclair et al. (2008, p. 422) comment that more 'passive' forms of participation may provide 'on-ramps to more deliberative mechanisms'. Del Furia and Wallace-Jones (2000, p. 459), while acknowledging that there may be an interrelationship between the various goals they list for public participation, assume that the satisfaction of one goal can contribute to the achievement of another, and limit further discussion of the matter to a footnote. In fact there is no logical reason to exclude the possibility that pursuit of one objective might not undermine pursuit of another (OECD, 2001, p. 36). The relationship between them certainly warrants more careful investigation.

The failure to consider the interaction between different forms of public participation is in fact also a feature of general models of public participation in policy making. This raises a further issue. The broader implications of experience with public participation in EIA for public policy making are rarely considered. Given that EIA is, overwhelmingly, undertaken as a component of public policy decisions regarding (mainly) large-scale project development and (less commonly) public programs and policies, it seems important to consider how issues regarding public participation in EIA relate to wider debates about public participation in policy making. For example, one proposed purpose for enhancing public participation in EIA is to 'empower' individual communities. What are the broader implications of such 'empowerment' for public policy making, and how are public policy actors likely to respond to demands for greater power at the community level?

This article seeks to contribute to the debate regarding public participation in EIA in three ways. The first involves the modest but important goal of clearly distinguishing between a range of distinct purposes for public participation. The second is to consider how such purposes can be interpreted and valued, drawing on the wider literature on public participation in policy making. The third is to

consider how experience with public participation in EIA can assist in assessing the utility of various models of public participation in policy making generally. In pursuing the second and third goals the primary objective is not to offer definitive responses to the issues raised, but to highlight their importance and the fact that they deserve greater attention from researchers.

One definitional matter should be clarified before proceeding, involving the term 'public participation'. The concept has long been contested and subject to a range of definitions (Bishop and Davis, 2002). Some analysts insist that use of the term is only justified when the public is *actively* involved and where decision makers are substantially influenced by that involvement (Bishop and Davis, 2002, p. 15–17). However given that a key goal of the article is to identify and explore the full range of ways in which members of the public relate to EIA processes, a restrictive definition is not appropriate. Thus 'public participation' is defined here as any form of interaction between government and corporate actors and the public that occurs as part of EIA processes.

As EIA occurs as part of public decision making processes, it is logical to consider the purposes of public participation as falling in three broad areas, depending on their relationship to those processes: as an aid to decision making which remains separate from the participating public; as a mechanism for achieving a role for the public as joint decision makers; and as a mechanism for reconstituting decision making structures. In making this distinction, no assumption is made that these areas are discrete either in the sense that the boundaries between them can be precisely delineated, or that chains of causality may not run between them, with actions in one having consequences in others. Yet at a conceptual level they do involve distinctions that are useful in identifying different approaches and exploring their implications. Table 1 summarises some more specific purposes included under each broad approach; these are discussed in the following sections.

2. Participation as input for decision makers

2.1. Provision of information

The public may be involved in EIA as recipients of information, with decision makers providing them with details of proposed projects or activities, of their timing, and of their expected impact on particular groups and localities. While not requiring the public's active participation and regarded in some cases as of little value to it (see Section 5), such information provision can be important in allowing affected groups to prepare for project impacts. It may be an essential prerequisite for the following two purposes, which involve transmission of information to decision makers by the public; and may assist in securing the smooth implementation of projects or programs (Del Furia and Wallace-Jones, 2000, p. 472; Tang et al., 2008).

2.2. Filling information gaps

In many cases the desire to achieve or enhance public participation in EIA reflects a belief that it is required so that decision makers in

Table 1
Defining purposes for public participation in EIA.

Broad purpose	Specific purposes and activities
Obtain public input into decisions taken elsewhere	<ol style="list-style-type: none"> 1. Provide information to public 2. Fill information gaps 3. Information contestability 4. Problem solving and social learning
Share decision making with public	<ol style="list-style-type: none"> 1. Reflect democratic principles 2. Democracy in practice 3. Pluralist representation
Alter distribution of power and structures of decision making	<ol style="list-style-type: none"> 1. Involve marginalised groups 2. Shift the locus of decision making 3. Entrench marginalisation

government and corporations have access to full and robust information on impacted ecologies and populations, on the nature of impacts, and on the likely efficacy of mitigative strategies (Andre et al., 2006; Hartley and Wood, 2005, 320). In this approach public participation 'is designed essentially to ensure that all relevant information, including input from those affected, is available so that the decision-maker can make the most informed and well-considered decision. The public participation is not an end in itself. Nor does it actually provide a role for the public in the actual decision making' (Morrison-Saunders and Early, 2008, p. 39; see also Momtaz and Gladstone, 2008). The information involved may relate to existing ecological or social conditions, as where Chinese authorities utilised public participation to gain accurate demographic data on a population that would be affected by resumption of agricultural land for industrial development (Tang et al., 2008, p. 64–65). In addition, it may only be through public participation that all of the issues potentially associated with proposed actions can be identified and that information can be obtained on the fears and hopes that accompany people's own predictions of the likely effects of projects, which are themselves an important component of social impact (Becker et al., 2004; Chavez and Bernal, 2008; Lemon et al., 2004; Robinson and Bond, 2003).

Decision makers also make judgments regarding the *significance* of predicted impacts and the risks associated with development alternatives. In this regard knowledge regarding the aspirations and values of affected populations is critical, and public participation may be required to obtain this information (Lane et al., 2003; Lockie, 2001, p. 281; Lockie et al., 2008, p. 180; Paci et al., 2002, p. 115; Tauxe, 1995). It may also be essential to provide decision makers with information about the distribution of costs and benefits from proposed projects, allowing them to undertake what many analysts regard as a critical component of EIA, calculation of the *political* consequences of alternative decisions they might take (Finsterbusch, 1995, p. 234–36; Usher, 1993, p. 99).

Where the underlying rationale for seeking public participation is gaining access to information, decision makers are likely to seek only the degree of participation needed to elicit the required information and no more (Lane et al., 2003, p. 97). This participation may be 'active' as, for example, where indigenous elders travel with officials to their traditional lands and expose them to environmental and cultural knowledge by demonstrating traditional life styles and practices. However participation in this case represents a technique designed to elicit information, not any sharing of control over decision making, and the implications of public participation for the nature of policy processes are unlikely to be substantial. If the relevant information is available from other sources, for instance an earlier EIA of a similar project in the same area, there will be no requirement for public participation.

2.3. Information contestability

Decision makers may wish not simply to extract specific types of information from potentially affected people, but may also wish to create contestability in relation to a wide range of information on projects and expected impacts. This is especially so given that the Environmental Impact Statements (EISs) or EIA reports that represent a critical input into public decision making are generally prepared by proponents or their consultants, who are far from disinterested in their selection, interpretation and presentation of information. Proponents wish their projects to be approved, and as a result are likely to ignore or downplay negative impacts or risks, and to exaggerate potential project benefits, and in particular may be prone to exaggerate the economic benefits that usually constitute the major justification for large industrial projects (Doelle and Sinclair, 2006, p.190; Lockie, 2001, p. 278–79; Lockie et al., 2008; Momtaz and Gladstone, 2008; Rosenberg et al., 1995, p. 146). Public participation can be indispensable if proponent information is to be contested and if

alternatives to those favoured by the proponent are to be properly scrutinised (Lockie, 2001; Tilleman, 1995).

It is not only that proponents may engage in obfuscation or in deliberate exaggeration, though this certainly occurs (see Weitzner, 2008 for extensive documentation of a contemporary case in relation to EIA of a bauxite project in Suriname). Also important are the world views, epistemologies and values that specific professionals engaged by proponents and their consultants bring to bear in identifying and assessing potential impacts (Tauxe, 1995). For instance, engineers or economists are likely to emphasise the concrete and the quantifiable, and so are likely to focus on and privilege certain types of impacts and ignore others (Chase, 1990; Kapoor, 2001). In contrast committed environmentalists or indigenous elders, given that they see the world and their own place in it quite differently, are likely to pursue alternative sources and types of information and to understand the same information differently. In relation to the latter point, it may be agreed, for example, that a proposed project will result in the death annually of a specific number of turtles. But this impact will be assessed very differently by an economist who sees it in terms of the market value of an equivalent quantity of meat, and an indigenous elder who believes that people and turtles are spiritually linked and live in a relationship of mutual dependency and obligation. Decision makers may also wish to ensure that no one professional perspective world view is allowed to dominate.

2.4. Problem solving and social learning

Public participation may be sought by decision makers not just as a way of obtaining information or testing its robustness, but also to assist with problem solving by suggesting ideas, concepts, solutions and resources that can be mobilised to address complex environmental and social issues (Diduck and Mitchell, 2003; OECD, 2001). Public participation can be a source of creativity and innovation (Joldersma, 1997), allowing decision makers to draw on alternatives that are not present in their existing array of responses. A related approach increasingly discussed in the literature involves the concept of social and organizational learning, in which stakeholders work together, sharing information to identify effective, socially acceptable strategies to mitigate impacts and identify opportunities (Chavez and Bernal, 2008; Diduck and Mitchell, 2003; Fitzpatrick, 2006; Van den Howe, 2006; Webler et al., 1995). Van den Howe argues that stakeholder involvement is essential given 'the irreducible plurality of stand-points that stems from the complex nature of [environmental] issues ...' (2006, p. 12). According to Sinclair et al. collective learning and the social mobilisation that can accompany it are required to achieve 'the perspective transformation necessary for changing unsustainable resource use patterns' (2008, p. 425) and to address 'the need for institutional innovation and generative change in response to the sustainability imperative' (2008, p. 416).

Social learning by definition involves a flow of ideas that is not unidirectional. However when it is undertaken as an input into decision making located elsewhere, the public's contribution of ideas and potential solutions, while possibly offering opportunities for acquiring scientific, technical and social knowledge, does not allow it to determine *which* solution will be adopted (for illustrations see Diduck and Mitchell, 2003; Momtaz and Gladstone, 2008). As noted in Section 3.2, social learning can also take other forms where public participation does involve a degree of control over decision making (Fitzpatrick, 2006; Sinclair et al., 2008).

3. Public participation in decision making

What distinguishes this broad perspective is that participation involves an element of control over decisions by the public, through existing decision making structures and processes. Both the extent of

this control and the mechanisms through which it is exercised can vary substantially.

3.1. Democratic principles and 'influencing' decisions

One approach involves the argument that it is 'the public' or sections of it which experience relevant environmental and social impacts, and that it is unethical or undemocratic for them not to be involved in decisions (Hartley and Wood, 2005, 327–35; Lawrence, 2003, p. 277; Morrison-Saunders and Early, 2008, p. 33; Vanclay, 2003, p. 9). A key issue, of course, is the nature of that involvement. Lockie (2001, 284) for example stresses the need for participation to be 'meaningful' and 'not just [provision of] data to decision makers elsewhere', while the public's capacity to 'influence' decisions is often seen as critical (Hartley and Wood, 2005, p. 328, 331; Yang, 2008, p. 97). But how are concepts such as 'meaningful decision making' and 'influence over decision making' translated into operational terms? How much influence should the public have? Some argue that in fact EIA should be used to obtain the *consent* of those affected by proposed projects, on the basis that the legitimacy of government derives from the consent of the governed (Creighton, 1983; Barton, 2002: p. 87–88). This latter approach, if taken to its logical conclusion, has profound implications for the conduct of public policy as it would require that EIA encompass a mechanism such as the referendum that allowed city residents in Italy to have the final say on a proposed gas terminal (Del Furia and Wallace-Jones, 2000). In 'wicked' policy areas such as the siting of waste disposal facilities, the outcome may be policy paralysis (see Section 3.3).

3.2. Democratic practice and capacity

A second strand involves the argument that participation is of value in its own right, that people cannot develop their full potential as citizens except by participating in the work of governance. Participation thus fulfils an educative function, allowing citizens to develop a fuller understanding of their system of government, giving them insights into the interests of their fellow citizens and of society as a whole, and in the process allowing them to contribute to government decision making and so fulfil the obligations which, along with rights, are associated with citizenship. Participation is essential for the full development of individual capabilities (Barton, 2002: p. 102–103; Hindess, 2002, p. 36–37). Social and organizational learning is also highly relevant in this case, as joint learning and problem solving creates opportunities for citizens to enhance their understanding of each other and to engage in the collective decision making at the heart of democracy (Fitzpatrick 2006; Renn, 2006; Sinclair et al., 2008, p. 416). From this perspective EIA represents one of many spheres of political life in which people can participate and both be educated in the exercise of their citizenship and at the same time fulfil their duties as citizens. The capacity for EIA to serve as an arena for personal development and a focus for exercise of citizenship is truncated if EIA processes allocate decision making power solely to senior bureaucrats and/or government ministers. Again, a critical issue involves the extent to which and the way in which decision making power is shared between public officials, appointed and elected, and citizens. We return to this issue in Section 5.

3.3. EIA as a political arena: pluralism and representation

Another basis for public participation, and one which renders moot the issue of degrees of public influence over decision making, rests on the starting point that decision making in modern democracies involves a contest between representatives of various interests in society, usually in the form of interest groups. From this viewpoint, the purpose of public participation in EIA is to provide avenues for these contending interests to pursue their desired outcomes and to resolve

conflicts between them (Barton, 2002, 90–94; Chavez and Bernal, 2008, 166; Lockie, 2001, p. 281–82). A 'representative pluralist' approach takes the view that the role of EIA is not just to generate information on the distribution of costs and benefits for decision makers, including the public, to consider. Rather, EIA processes represent fora in which conflicts are resolved and winners and losers *are decided* through the contest of competing interests. The proponent represents one such interest and will push for rapid development of the project at least possible cost, while other interests (for instance environmental or indigenous groups, other economic producers using resource the proponent will monopolise or affect) will be pushing for different outcomes.

The various interests will lobby for their preferred outcomes both by participating in the EIA process, and subsequently seeking to influence government decision makers, for instance the minister ultimately responsible for rejecting or approving a project or setting conditions for its approval, or cabinet where it has the final say on project approval. Individual components of the state (for instance a mines department or an environmental protection agency) may also be perceived as constituting distinct interests pushing for their preferred outcomes. The agency that is responsible for overseeing the EIA process may be seen in a similar light, or alternatively may be viewed as a referee who oversees the contest and ensures that the 'rules of the game', as set out in relevant legislation and administrative procedures, are observed (Devlin and Yap, 2008, p. 19).

From this perspective there is no necessity for members of the public to participate directly in EIA processes or to lobby governments, only for the groups that represent them to participate.

An important issue that arises in relations to group participation in EIA involves its implications for pursuit of a general public interest, defined as the general good or the aggregate interest of the political community as a whole (Hindess, 2002, p. 31–32). Where participation revolves around promotion of specific group interests, it can be seen as promoting specific and even narrow interests at the expense of the wider social good (Hindess, 2002, p. 34). This is especially the case where EIA is being conducted in relation to siting of projects or activities that are widely reviewed as undesirable, for instance waste disposal facilities, power stations and prisons. Indeed in such cases public participation may simply constitute public resistance, with the result that policy making is paralysed, facilities for which an urgent need exists are not constructed, and society incurs significant costs (Barton, 2002, p. 119; Holland, 2002).

On the other hand it can be argued that claims of incompatibility between group participation and pursuit of broad societal interests are based on the assumption that government decision makers would, in the absence of such participation, pursue the public good. This assumption may not in fact be valid in relation to EIA, which can be dominated by project proponents, consultants on their payroll, government agencies that are subject to 'capture' by proponents, and politicians intent on promoting short-term economic growth to boost their electoral prospects (Curran and Hollander, 2008; Weitzner, 2008). Broadly-based group participation may be required to avoid such an outcome (Barton, 2002, p. 88; Doelle and Sinclair, 2006, p. 187, 189–90; Kapoor, 2001, p. 270; Lockie, 2001, p. 279).

4. Reframing decision making: shifting the balance of power

4.1. Empowering marginalised groups

The broad approaches outlined in Sections 2 and 3 assume that existing decision making structures and the distribution of power they reflect are acceptable and will remain unchanged. In the first case, public or corporate officials will make decisions, in part by utilising information and ideas provided by the public. The second approach assumes that the existing distribution of power allows citizens to participate in decision making in 'meaningful' ways or, from a pluralist

perspective, that it reflects a democratic political contest between groups that represent citizens' interests. A third broad approach takes the view that the existing distribution of power is in fact uneven and inequitable, that in this context marginalised groups will exist that cannot exercise any significant impact on decision making, and that this situation is unacceptable. Thus a fundamental goal of public participation in EIA is to achieve a more equitable distribution of political power and change existing decision structures. EIA can be used by socially marginalised groups as a platform from which to change the social order, and in so doing alter in basic ways the distribution of costs and benefits from development.

Thus while Finsterbusch (1995, p. 234) argues that impact assessment is not 'an instrument for the revolution of social institutions to equalize power and results', Gagnon (1995, p. 273, 286) sees SIA as one of the most important and useful tools in empowering 'local community members to exercise increased control over their own territory, social environment and future development'. Similarly, Vanclay (2003, 7) argues that the role of impact assessment 'encompasses empowerment of local people; [and] enhancement of the position of ... disadvantaged or marginalised members of society' (see also Barton, 2002; Gagnon et al., 1993; Howitt, 1989; Lawrence, 2003, Chapter 7).

This approach has major implications for policy making, implying the need for a realignment of political roles and structures that place previously marginalised groups in a position to influence decision making in EIA. An important consideration in this regard is how marginalised groups, given their disadvantaged status, can in practice achieve such a position. The powerless in society are in fact the least likely to participate in EIA, both because they lack the resources to do so and often find the processes involved alien and intimidating (Esteves and Vanclay, 2009, p. 141). While long recognised in the literature (Freudenberg, 1983, p. 231), this dilemma is frequently not addressed by analysts calling for a redistribution of political power. Thus for example Dale and Lane (1994, p. 264) state that 'local Aboriginal people have little influence and control over environmental decision making' and note the need 'for more effective participation', but do not indicate how, at a political level, such an outcome can be achieved.

Another important consideration involves the response of decision makers and existing developer and other interests to marginalised groups that do mobilise and push for change. It appears unlikely that those who hold power will yield gracefully to groups pushing for a share of it. In this context the latter may first need to work outside impact assessment processes in order to enhance their negotiating position, and then insert or re-insert themselves from this stronger position. For instance, Lawrence (2003) reports a case involving an impact assessment of a planned oil shale project on fruit farmers in Queensland, Australia. While an SIA conducted by the proponent identified a range of likely impacts, it offered no solutions acceptable to the fruit farmers. The fruit growers carried out their own strategic planning process outside the SIA to investigate a full range of possible responses, some of which had been foreclosed by the proponent. One of these, involving a complete buy-out of the growers, was eventually accepted by the government. As Lawrence notes, 'the growers found a way to broaden and redefine the SIA process. However to have the necessary control over their own fate, they had to go outside the SIA process, employ a parallel planning process, and then reshape the SIA process ...' (2003, p. 268).

4.2. *Shifting the locus of decision making*

Groups that are subject to systemic marginalisation may find it impossible to reshape existing structures, and may respond by establishing impact assessment processes separate to the statutory ones, bypassing government and using their impact assessment as a basis for negotiating terms of development directly with project

proponents. For instance during the 1990s a number of Aboriginal groups in Cape York, Queensland, having been effectively excluded from EIA decision making for many years (Chase, 1990), opted out of the public project assessment process and undertook their own impact studies. They used these studies as a basis for negotiating legally-binding agreements with project developers. These agreements deal with matters (including environmental management and cultural heritage protection) that are also addressed in legislation and public regulation, and in at least some cases they contain provisions that appear to appropriate for Aboriginal people decision making powers usually monopolised by governments. For instance one agreement allocates to a joint Aboriginal-company management structure control over environmental and cultural issues arising from mining operations (O'Faircheallaigh, 1999, 70). While the government does possess the ultimate authority to impose its legislation, in effect it is unlikely to intervene if project development is proceeding smoothly, and to date the Queensland government has not done so. The outcome is that Aboriginal communities gain a significant degree of influence over impact assessment and the conditions under which development occurs. Similar outcomes have been achieved by some indigenous groups in Canada using what are referred to there as 'Impact and Benefit Agreements' (Gibson, 2006).

4.3. *Reinforcing powerlessness*

While the literature dealing with marginalised social groups generally focuses on the use of EIA to enhance their political position, impact assessment can also be utilised to reinforce marginalisation or marginalise social groups even further. For example Tang et al. (2008, p. 66–70) note that Chinese officials responsible for an environmental assessment of a major industrial development regarded villagers who would lose their land as 'policy recipients', that the purpose of the EIA was to 'justify already-made project decisions', and that officials prevailed on a lawyer hired by villagers opposing the development not to take their case. Hildyard et al. (1998) report that Indonesian officials undertook impact assessment processes solely because these were required by international aid agencies, and continued to ignore the interests of villagers whose land was being lost to agribusiness projects. Tauxe (1995, p. 9–10) describes how public consultation procedures which supposedly incorporated ranchers affected by oil development in Montana further marginalised them by invoking 'dominant organizational, ideological, and discursive forms' which devalued the ranchers' values and rhetorical styles.

5. **A wider perspective: public participation in policy making**

How should these different approaches to public participation be interpreted and how should they be valued? The general literature on public participation in policy making may provide insights in this regard. In turn, the experience with public participation in EIA may offer useful insights into the utility and validity of models of public participation included in that literature.

The approaches outlined above could be interpreted within frameworks that establish a hierarchy of forms of participation, such as Arnstein's 'ladder of participation', cited regularly in the literature on public participation in EIA and on public participation generally (for example Chavez and Bernal, 2008; Cooper and Elliott, 2000; Diduck and Mitchell, 2003; Tritter and McCallum, 2006). Arnstein (1969) constructs a hierarchy of participation in terms of the degree of control over policy decisions enjoyed by public participants. Use of EIA to provide information to the public or to generate information for decision makers would be defined as 'tokenism' in Arnstein's framework, because it fails to deliver citizen's control over policy. Use of public participation in EIA to help to shift the balance of power in society would be highly regarded, given that the ultimate goal of public participation is 'the redistribution of power that enables have-

not citizens, presently excluded from the political and economic processes, to be deliberately included in the future' (Arnstein, 1969, p. 216; see also Hildyard et al., 1998).

One difficulty with such approaches is that they dismiss forms of public participation that, as the EIA experience reveals, can substantially enhance the quality of public decision making by expanding the available information base. This is especially so when public participation is utilised to create contestability in relation to information available to decision makers (Barton, 2002, p. 100–101; Tilleman, 1995, p. 428–29; Weitzner, 2008). They also treat each form of participation as separate and distinct, denying the possibility that they may in fact interact in dynamic ways. Thus for example Arnstein argues that citizens only achieve access to the 'upper rungs' of the ladder by refusing to participate in forms of participation that equate to the lower rungs (1969, p. 122). But in reality provision of information to decision makers can provide a basis for achieving a share of decision making power. For instance Tauxe (1995, p. 8) discusses how a developer's association in Montana was able to provide authoritative figures on the projected impacts of energy development, which were then utilised by state planning agencies and consultants, earning the developers 'a strong lobbying voice' with decision makers. In another context, Keck and Sikkink (1998) show that the capacity to generate and control information has been crucial to the ability of non-government organizations to influence international policy regimes.

An alternative framework is proposed by Thomas (1990). He argues that a range of different approaches to public participation may be appropriate depending on the nature of the policy problem or issue involved. Participation may serve quite different ends in different policy areas, and so no particular approach to participation is inherently desirable or undesirable. The degree of public involvement 'depends on the attribute of the core problem; some problems demand more involvement, others less' (1990, p. 435). Thomas models five different approaches to decision making, ranging from a situation in which a public manager makes an 'autonomous managerial decision' without public involvement, to one in which 'the manager and the public attempt to reach agreement on a solution'. The key task for decision makers is to classify policy problems and 'choose among [the] five decision-making approaches, varying in the extent of group involvement and potential approaches' (1990, p. 436; for another similar approach see Shand and Arnberg, 1996).

While this approach has the advantage of drawing attention to the potential benefits of various types of public participation, it has two major drawbacks. First, it assumes that fundamental choices regarding the nature of policy issues or problems and regarding the appropriate approach to public participation should be made by public officials; such participation may be extensive in certain cases, but only where public officials determine that this should be so. This position itself embodies a very specific approach to public participation. Second, it assumes acceptance by the public of the degree of participation that officials determine is appropriate, denying agency to people or groups that are offered specific forms of participation. As we shall see, the EIA experience suggests that this assumption is seriously flawed.

Bishop and Davis (2002, p. 21–26) adopt a somewhat different and less normative approach based on 'aggregating contemporary practice'. They identify six different forms of public participation, ranging from 'Participation as Consultation' to 'Participation as Control'. Their classification has the virtue that it does recognise the possibility of agency on the part of the public, arising for instance from its ability to use administrative law to *insist* on a role in decision making and in some cases to have government decisions reversed or modified ('Participation as Standing'). However in common with the approaches discussed above, this classification tends to treat different forms of participation as separate and mutually exclusive categories; to ignore the dynamic relationship that can exist between various forms of participation; and to downplay the capacity of the public to devise strategies to redefine the basis on which their participation occurs.

The importance of addressing these matters is well illustrated by public participation in EIA. For example, officials and proponents may determine that public participation should serve purely as a means of generating information they can use to take decisions. However seeking information from a potentially affected public is likely to raise public awareness of a project and this in turn may result in demands for more substantial public participation (Devlin and Yap, 2008, p. 19). Indeed the willingness to allow this may become a precondition for providing the information originally sought by the proponent or government officials. Official requests for information on indigenous cultural heritage that may be affected by a proposed project provide a good illustration of such responses. Typically, indigenous people are reluctant to release such information unless they are fully informed about the proposed project and are given the opportunity to enter into negotiations with government and the proponent on management of cultural heritage (O'Faircheallaigh, 2008). If such demands for greater involvement are met, then the character of public participation and its implications for policy making change significantly, illustrating the fact that control over information can in itself represent a significant source of power. Alternatively, if such requests for greater involvement are denied by decision makers, members of the public may feel that they are facing attempts to coopt them into a process over which they will have no control, and may simply withdraw, undermining the objectives of public officials (Hildyard et al., 1998; Tauxe, 1995, p. 7).

Critically, EIA experience shows that withdrawal may only be from the specific participative processes the public finds overly restrictive, rather than from relevant decision making arenas. Groups can utilise a range of strategies to 'break open' decision making processes through what Devlin and Yap (2008, p. 19) term 'transgressive contention' that rejects the 'rules of the game' initially laid down by public officials. They note that 'Even quite closed and technocratic processes can be broken open if the public becomes aware of the project and begins to mobilize against it' (2008, 19; see also Feit, 2005, p. 269). Thus Holland (2002), for instance, describes how groups dissatisfied with the assessment process being applied to the selection of a nuclear waste disposal facility in Australia used court action, and political strategy focused on minority parties in the Australian Senate, to undermine and eventually derail the entire site selection process (for other examples of 'transgressive action' by the public, see Hildyard et al., 1998; Lawrence, 2003; Lucas, 2002, 313–314). Similarly, Non-Government Organizations (NGOs) in Canada are mounting court challenges to Federal Government attempts to constrain public participation in EIA processes for the proposed Red Chris mine in northern British Columbia (Mining Watch Canada, 2009). Indeed it may even be the case that EIA processes that allow little opportunity for public control of decisions themselves provide opportunity for acquisition of skills, such as communication strategies and methods of social mobilisation (Diduck and Mitchell, 2003), that can latter be turned against decision makers.

This discussion of models of public participation highlights the fact that static frameworks that place different forms or levels of public participation into separate categories characterised by rigid boundaries are unhelpful, especially where it is also suggested that policy makers have the freedom to choose between them. In reality the three broad forms of public participation outlined in previous sections are not insulated from each other, but rather interact in the context of a political dynamic that inevitably surrounds public decisions regarding major project developments and other activities subject to EIA. This can be illustrated in relation to a key issue around public participation, the question of control over decision making.

Public officials, appointed or elected, generally prefer to keep public participation 'within tightly circumscribed limits' and display a 'propensity towards centralized control' (Lawrence, 2003, p. 273), a tendency that seems nearly universal across political systems (Chavez and Bernal, 2008, p. 167; Doelle and Sinclair, 2006, p. 187; OECD, 2001; Tang et al., 2008). Indeed in politically sensitive areas government

may prefer to avoid public participation, because of the risk of policy paralysis (Holland 2002, 81). The argument that public officials must ultimately control decision making gets substantial support in the EIA literature and in writing on public participation generally. As Daneke argued over two decades ago, 'Most researchers agree that it is not the purpose of public involvement to make the decision, but rather to merely improve decision making' (Daneke, 1983, p. 24). Kane and Bishop (2002, p. 87) are critical of the 'tendency to view consultation as an exercise in policy determination by the public rather than as public input ... whose ultimate use is to be defined by the elected decision makers' (see also Lucas, 2002, p. 345–46; Lemon et al., 2004, p. 193).

But the political reality is that if officials refuse to share decision making power, public participation may be seen as tokenistic, and the public quickly becomes cynical and withdraws. Thus Stewart and Sinclair (2007, 168) cite informants in a study of public participation as stressing the need for 'genuine opportunity to influence the decision ... People sense very quickly when something's a done deal; then they stop participating' (see also Curran and Hollander, 2008; Hartley and Wood, 2005, p. 328; OECD, 2001, p. 21–24, 41–43; Webler et al., 1995, p. 459).

Government needs public participation, for instance because of its valuable role in filling information gaps and rendering information contestable; in ensuring that government is aware of the full range of policy options; and in removing potential obstacles to project or policy implementation. But unless it is convinced that participation will involve some real influence over decision making, the public will be reluctant to participate. This reluctance may not be limited to a specific project or policy area, but may result in a general cynicism that makes it very difficult to involve citizens when officials wish to do so, and ultimately threatens the legitimacy of government (Curran and Hollander 2008, p. 22; OECD, 2001; Webler et al., 1995, p. 459).

In addition, as mentioned above public actors may well react by finding ways to undermine or circumvent existing policy structures. Thus what faces officials is not a menu of 'participation options' from which they can choose what they consider appropriate for the circumstances. Rather what faces them is an ongoing negotiation regarding the terms on which the public will participate, and the need to constantly manage the tension between their 'propensity towards centralized control' and the 'decentralizing tendencies of public involvement' (Lawrence, 2003, p. 273). This does not deny the need for policy makers to be clear about the distinction between various forms of public participation, and transparent about their willingness to allow public participants to influence decision making. To do otherwise is to invite public cynicism, and withdrawal from participation. But attempts to establish hard-and-fast rules regarding the relationship between public participation and decision making are likely to be counterproductive. Maintaining flexibility in relation to the nature and extent of public participation is essential to its successful incorporation into public policy making.

While the public is not powerless in dealing with government, EIA experience highlights the fact that public participation occurs in dynamic political environments and that, as a result, the trend will not inevitably be towards greater public control. Decision makers, driven by wider policy and political imperatives and reacting to what they see as threats to their ability to respond to these, may act to roll back public participation. Indeed the very success of groups in achieving greater control over decision making can lead to political responses which push public participation back to a 'lower' level, again emphasising the relationship between different dimensions of public participation.

Site identification and impact assessment procedures utilised in 2007–2008 in relation to a liquefied natural gas (LNG) processing facility in the Kimberley region of Western Australia offer a good illustration of this point. Historically, Kimberley Aboriginal people

have been excluded from decisions about resource development on their traditional lands. From the late 1970s they began to actively oppose such developments, using litigation and direct action to delay and in some cases halt major projects (Hawke and Gallagher, 1985). After 2000, the regional Aboriginal land organization, the Kimberley Land Council, was able to use this record of opposition to major projects, the Australian High Court's legal recognition of inherent Aboriginal rights in land (arising from the 1992 *Mabo* case), and the growing international recognition of indigenous rights to push for a much stronger role for Aboriginal landowners in impact assessment and project approval processes (Kimberley Land Council, 2008a,b). It achieved considerable success in this regard, to such an extent that when the (Labor) Government of Western Australia contemplated establishing an LNG facility on the Kimberley coast in 2006, it stated that development would only occur with the informed consent of the Aboriginal traditional owners of proposed sites (Carpenter, 2006). In other words, the government was not only sharing its decision making powers, but allowing traditional owners the final say. A site identification and impact assessment process was established on this basis during 2007 and 2008.

In October 2008 a newly-elected Liberal/National Party Government reversed this position, believing that it was unacceptable for any section of the public to have what it termed a veto over government decisions. The government indicated that while it would consult with traditional owners regarding measures for impact mitigation and community benefits, the existing site selection process would be discontinued. It has since announced its preferred site for the LNG facility, and indicated that it will use compulsory acquisition powers to enforce its decision if traditional owners oppose it (Government of Western Australia, 2008; O'Brien, 2008).

6. Conclusion

This article has proposed a classification of purposes for public participation in EIA based around three fundamental relationships between the public and decision making structures and processes. These involve public input to decisions taken separately from the public; public involvement in decision making; and attempts to change the distribution of power in society so as to reconfigure decision making. Ten different purposes are identified, each of which differs significantly in the degree and form of participation and in its implications for public decision making. The point of this exercise is not to argue that this is the only basis on which alternative purposes for public participation in EIA can be classified and their implications explored. Rather it is to highlight the need to be clear and specific regarding what these purposes are, how they may be distinguished from one another, what each implies in terms of the role of public participation in decision making process, and the implications of each for decision making.

It is one matter to distinguish between different purposes for public participation in EIA, another to form judgments regarding their desirability. There is also the important issue, little addressed in the literature, of what experience with public participation in EIA implies for participation in policy making generally. The general literature on public participation in policy making offers some arguments and insights regarding the value of various types of participation, but tends to adopt rigid positions in favour either of specific forms of public participation, or to privilege the authority of public officials in determining which form should be adopted. Both approaches ignore two important and inter-connected realities, highlighted by the experience with public participation in EIA. The first is the dynamic and political nature of public participation as an issue. This involves inherent tensions between the desire of public officials to keep control over decisions; their need for public involvement; and the agency of the public in responding to opportunities for participation, in some cases by circumventing decision making processes created by public

officials and legislators. The second is that alternative purposes for public participation are in fact not bounded and discrete but relate to each other, in ways that require further exploration. Thus for instance use of public participation to obtain information for corporate and government officials can lead to pressures for public control over decision making; the success of groups in gaining control over decision making can in turn generate reactions from public officials, resulting in a redefinition of the purposes and limits of public participation.

More research is needed on the way in which the dynamic political processes within which EIA is embedded work out in specific contexts and influence the shape and extent of public participation in EIA, and on the way in which various forms of public participation relate to each other. These matters receive less attention than they deserve not only in research on public participation in EIA, but also in the wider literature on public policy making. Thus such a focus would not only enhance understanding of EIA, but also represent an important contribution to knowledge regarding public participation in policy making generally.

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