ELSEVIER

Beyond environmental impact: articulating the "intangibles" in a resource conflict

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Abstract

Environmental planning is an arena of policy making in which formal public deliberation is among the most extensive. At the same time, environmental disputes can also be among the most resistant to resolution, often becoming entangled in issues that some describe as "intangible". The discourse is largely structured by regulatory frameworks, such as environmental impact assessment laws and procedures, which focus primarily on operational rights (what one can or cannot do where and when) and tangible impacts on the physical or natural environment. A comparative case study of mariculture in Hawai'i reveals that a large measure of public concerns focused on collective choice rights (who has a right to make which decisions on behalf of whom) and the more intangible impacts to the social or cultural environment. These concerns are often nested in a historic context that has implications for the social processes that they create. The findings from this study imply a need for more structured or systematic ways to deliberate issues of collective choice rights alongside operational rights within the larger process of environmental planning.
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1. Introduction

The most common environmental policy and planning tool to determine allowable development and conditions of operation for a proposed development project is the Environmental Impact Assessment (EIA) within formal permitting processes. The EIA is an important tool in environmental management for deliberating various claims concerning proposed activities. As originally conceived,[1] the EIA required the preparation of a report to provide advice to decision makers with respect to the environmental soundness of a project. The EIA has since evolved to become a process by which conditions to mitigate adverse impacts are developed. These assessments are used to help define the types of activities

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[1] The National Environmental Protection Act (NEPA) was passed in 1969, mandating preparation of a written document that provides an in-depth study and disclosure of all the environmental ramifications of projects proposed by federal agencies. In 1974, the Hawai'i Legislature passed the Hawai'i Environmental Policy Act (HEPA), which is based on NEPA, mandating proposals that affect state lands to be accompanied by an Environmental Assessment (EA) "to determine whether such action may have a significant effect," or when necessary, an Environmental Impact Statement (EIS) "that discloses the effects of the proposed action, as well as alternatives to the action and their environmental effects" (*Hawai'i Revised Statutes*, Chapter 343-2).

that can or cannot be conducted in certain types of geographic areas, to define the conditions under which permitted activities may take place, or to define acceptable thresholds for certain quantities of activities or release of substances in given environments based upon scientific findings. The EIA process allows for increased public awareness of impending projects and creates the opportunity for public input prior to the finalization of a project.

For this reason, environmental planning is an arena of policy making in which formal public deliberation is among the most extensive (Dryzek, 1997). The EIA process is, however, bounded in scope and, thus, addresses some public concerns more thoroughly than others. More specifically, the EIA process can be an appropriate medium for resolving "distributional disputes" in which participants' interests, gains and losses are tangible (cf. Susskind and Cruikshank, 1987). But many environmental disputes are often entangled in issues that some describe as "intangible." Usually, the most intangible issues are those that make environmental and resource conflicts intractable or difficult to resolve, as they burrow into the seams of social identities, power networks, belief systems and other tightly woven and partly submerged realms of social life.

Scholars have written extensively on factors and circumstances that contribute to the intractability of environmental management disputes (Caton Campbell, 2003). Some have focused on fundamental differences in values and beliefs with regard to how resources and the environment should be treated (Caton Campbell and Floyd, 1996; Forester, 1999b). Others have highlighted the effects of severe power imbalances between disputing parties and threats to individual or collective identities on intractability (Forester, 1999a; Hunter, 1989; Susskind and Field, 1996). Still others underscore competing problem frames among disputants as an important epistemic dimension to many disputes (Hunter, 1989; Lewicki et al., 2003; Schön and Rein, 1994). The high degree of uncertainty about the nature and level of environmental risks also complicates public deliberations (MacDonnell, 1988). Existing environmental regulatory frameworks are not adequately equipped to address such types of disagreements. For these types of conflicts, mediation scholars have increasingly turned to transformative approaches to conflict resolution (Bush and Folger, 1994; Hunter, 1989), which seek changes among the disputing parties themselves rather than merely their situations. This approach requires a detailed understanding of the dynamics of disputes, the level at which they occur (Hunter, 1989), and an awareness of the context within which conflicts are embedded.

We turn to Hawai'i to examine an empirical case of a resource conflict in which intangible issues underlie many of the grievances, yet they are obscured in the EIA process that focuses on tangible impacts. Our examination focuses on several controversies that have emerged during the planning and permitting process in the early stage of development of new marine aquaculture (mariculture) technologies. The controversies have involved stakeholders and concerned citizen groups that include Native Hawaiian organizations, environmentalists, fishers, entrepreneurs, scientists, policy makers and state agencies. Proponents of mariculture argue that technology that allows farming of seafood in the open ocean promises a new growth industry for a state that strives to diversify its economy viewed as overly dependent on tourism. Operating within the environmental regulation framework, opponents raise concerns over impacts on marine environments as well as impacts on current ocean users and on Native Hawaiian cultural sites and practices. Further examination, however, reveals other types of concerns that underlie some of the opposition. Some of these concerns relate to their fear of "losing greater control" over the future direction of their community and local environment.

In this regard, the distinction between rights at an operational level and rights at a collective choice level is critical (Schlager and Ostrom, 1992). While operational rights regulate access to a resource, collective choice rights give individuals the right to participate in deciding on the future of the resource. Collective choice actions are needed to devise operational rules, which may take place in arenas that range from the legislature to informal local venues (Schlager and Ostrom, 1992). [2] Local stakeholders may organize and claim de facto collective choice rights to devise operational rules that are commonly understood, followed, and perceived as legitimate within a local community, even if they run counter to the laws of the state and nation (Acheson, 1975; Berkes, 1986). For example, lobstermen in Maine exercised de facto collective choice rights to develop informal rules, along with the local sanctions, that determine who could enter their grounds, how these grounds would be used, and what production techniques would be allowed (Acheson, 1975).

In this study, we find that the intangible concerns raised in the controversy can best be understood in terms of collective choice rights, as stakeholders strive to claim the rights to participate in directing the future of their environments. We illustrate how public concerns are often nested in an historic context that resonates more forcefully within the discourse of collective choice rights. The study shows the efficacy of community outreach efforts in one of the cases we observed, affirming the argument that for some types of conflicts, law is

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[2] Not all actions taken at collective choice arenas affect rules in use. To be effective rules must be enforced, and accepted as legitimate by all resource users (Ostrom et al., 1994).