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Achieving public participation in coastal zone environmental impact assessment

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Abstract. The case is made in this paper for early and integrative public participation in planning decisions concerning proposals for major development in the coastal zone. This is perhaps easy to subscribe to in theory but much more difficult in practice. Currently the extent and timing of public involvement in such decisions varies widely. A key benefit is the legitimacy that public participation provides to the planning process and, perhaps as a result, a variety of public involvement methodologies have emerged. Important considerations include which sections of the public to involve and at what stage in the decision-making process to involve them. The multidisciplinary nature of coastal zone issues will tend to engage a wide variety of stakeholder groups who in turn will influence the topics for discussion. A major port expansion proposal in the UK is used to illustrate a range of ways in which the public can be involved. The case study also highlights that public participation is an uncertain science, and to be successful can require skilled personnel and significant resources. The paper concludes that more guidance for developers, some standardisation of public involvement, training for facilitators and a more responsible stance from some environmental pressure groups would be advantageous. The complexity of coastal decision-making, tensions between science and policy, and the inter-dependency of coastal activities mutually reinforce the view that inclusive participation is an important issue for all coastal communities.

Keywords: Coastal planning; Consultation; Integration; Public involvement; Stakeholder.

Abbreviations: ABP = Associated British Ports; EIA = Environmental Impact Assessment.

Introduction

The importance of public input to the formal planning process for major developments has been recognised in the European Union through legislation pertaining to Environmental Impact Assessment (EIA). For projects in the coastal zone, subject to such legislation, the effectiveness of public participation depends on its timing, who should be involved, the issues under discussion, and the means by which the public are involved. Whilst they are not necessarily developments associated with the most significant impacts, the location of waste water treatment works, marinas, fish farms and harbour works can all be of considerable public interest.

The World Commission on Environment and Development (WCED), within which the 10th principle encourages participation, established the need for public participation in key environmental decisions by all 'concerned citizens'. Agenda 21 also reiterated the need for broad public participation in decision-making. More recently, the UN Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (Aarhus Convention) strengthened public rights with respect to participation related to sustainable development.

The timing of public participation is a decision to be taken by the developer and arguments for introducing it early in the process are often countered by concerns related to confidentiality and the need to resolve technical issues. The European Council Directive (85/337/EEC amended by 97/11/EC) states that the public should be involved prior to the implementation of a project, but allows for considerable discretion as to the nature of any involvement. Specifically Article 6(3) allows Member States to determine who the public are, decide where consultation takes place, determine how the public are informed and decide on the manner of public consultation. As a result, national requirements vary considerably. For example, in Greece there is limited opportunity for public to be involved in the EIA process, whilst

in Spain opportunities exist firstly when the developer submits a notification soliciting any 'alegaciones' (comments or questions), with further opportunity once the EIA Report has been produced.

As a result the extent and timing of public involvement varies widely. To date the majority of projects have only involved the public prior to any decision but after the Environmental Statement has been submitted, and thus sometimes key infrastructure decisions have already been taken. Underestimating public opinion in this way can prove expensive. For example, the long sea outfall development for Antalya City in Turkey has proved to be controversial in terms of public perception of water quality. The public have demanded the addition of enhanced treatment facilities which, had they been considered in the first instance, may have reduced the specification for the outfall itself.

The European Commission believes in the importance of public participation and that it should be encouraged in the area of environmental decision-making. In 2000 the Commission made a proposal for a new Directive which aims to provide for public participation in EIA. The proposal plans to make amendments to the EIA Directive (85/337/EEC). This will help to ratify the Aarhus Convention by aligning Community law with the provisions of the Convention. The main proposed amendments will ensure that the EIA Directive is compatible with Article 6 of the Aarhus Convention. Extension of and greater security for public participation in environmental decision-making will be provided (Anon. 2000).

Methods

Some information provided in this paper is based on the second part of a study, undertaken in 1998/1999 for the European Commission, on 'Environmental Impact Assessments and Geological Repositories for Radioactive Waste' (Anon. 1999), the aim of which was to find ways of harmonising regulations within Member States. This research was broadened to include other types of controversial developments. Information was collected, where possible, from all European Member States and from countries including Canada, USA and Australia.

A more extensive picture of public involvement in the EIA process was achieved using the following research methods:

- A literature review on the legal requirements of public involvement in EIA, current practice methods, best practice methods, benefits and difficulties of public involvement and methods of public involvement in sustainable development planning.

- A questionnaire about national requirements for EIAs, sent to those with an involvement in major projects, included questions on the role of the public in EIA in practice. Requests for relevant documentation to support the literature review were also made in the questionnaire.

- A consultation exercise based on an analysis of the literature review. The first part of this exercise requested structured responses to questions on the various aspects of participation. The second part was designed to gather information on the consultees' personal experiences of participation. The consultation document was distributed to 225 individuals including developers and participants involved in the EIA of controversial developments and individuals known to have an interest in public participation.

- Structured telephone interviews based on a summary of the consultation exercise. A summary paper was sent to 46 organisations including environmental non-governmental organisations (NGOs) and EIA consultants.

- A one-day workshop to supplement responses from the consultation exercise was attended by nine individuals representing NGOs, developers, professional and academic institutions from within the United Kingdom. Although biased towards the UK, those with knowledge of public participation within the rest of Europe shared their experiences.

Results

The results of each of the components to be considered in the public participation process are described separately in this section. These are then brought together within an illustrative case study of a current major coastal zone development proposal.

The value of public participation

Benefits of the use of participation and consultation skills in the planning of marine developments suggested by Budd (1999) included:

- The opportunity to accurately convey the implications of a proposal to all interested parties, thus enhancing political credibility;

- A means to ensure full mitigation of significant impacts, including due consideration of possible alternatives; and

• An opportunity to solicit the 'hidden' knowledge of the wider community and their key concerns.

The generic objectives of involving the public at different stages in the EIA process were considered by a recent European Commission research project (Anon. 1999), which published the summary reproduced in Table 1.

Local opinion can also secure conservation gains by resisting inappropriate development completely. For example, the Turkish Society for the Protection of Nature (DHKD) has been influential in raising awareness of the importance of the 17 major breeding beaches for sea turtle species in Turkey. A survey of nesting site status recommended 'greater citizen involvement in all aspects of planning and conservation management, which would require public authorities at all levels to inform local communities about planning issues and to solicit their participation in decision-making and implementation of the planning process' (Yerli & Demirayak 1996). As a result, for example, at Cirali beach the strength of local opinion has resisted anything more than low-key ecotourism development.

How to encourage public participation

The range of methods available for engaging the public and their characteristics have been analysed in relation to EIAs in general (Anon. 1999). A distinction is drawn between information methods, which allow one-way transfer of information; consultation, whereby information is exchanged in a two-way process; and participation, which can be both iterative and interactive.

Information provision including leafleting, displays and exhibitions, web-sites, survey questionnaires and advertisements are limited in terms of the degree of interaction they can generate and they generally do not encourage feedback or consensus building. Advantages are that they can reach a relatively large group size, within a short time scale, often reasonably cheaply. Going beyond information provision, into the areas of consultation and participation, requires different techniques but is determined by resources and time available, the anticipated level of controversy, the skills and experience of the facilitators, and local factors such as the size of the affected population and local cultural constraints. The range of public involvement methodologies and their characteristics are illustrated in Table 2.

For public consultation methods in particular it is important that the public are informed as to how the information which is gathered during the consultation process is going to be used at the decision-making stage. Without doing so, public scepticism about the procedures taking place may remain high and the development may be opposed as a result (Harrop & Nixon 1999).

Stakeholder analysis

An important decision in determining the level of public participation is deciding who should be involved, which in turn is dependent on the type of project envisaged and its proposed location. Through stakeholder analysis, where stakeholders are defined as 'groups in the communities having a special interest or involvement in the use of resources as common property' (Thia-Eng 1993), those interested in partaking can be identified. To be fully effective this should occur before the EIA process begins. It is easy to say that all persons should be involved, but it is also important to consider a number of issues. These include the basis for selecting different groups, who the most valuable groups to the process are, and the difficulties that affect the involvement of one group or another. Politically it may be difficult to involve some groups, whilst the potential also exists to antagonise individual groups through their exclusion. The aims and needs of each group identified may vary. This should be recognised by the developer and if necessary the participatory approaches adjusted accordingly. It has also been noted that motivation to participate varies in different countries (Leal Filho 1999) thus, in addition to identifying appropriate stakeholders, in some cases it may be necessary to foster interest from under-represented groups.

Table 1. Summary of Objectives of Public Involvement (Anon. 1999).

Stage of EIA process	Objectives of public involvement
Screening	Identification of significant impacts
Scoping	Identification of public's interests and values Identification of priorities for assessment Encouraging public understanding of the proposed project
Assessment	The public can contribute local knowledge and values to the prediction, evaluation and mitigation of impacts Improvement in quality and acceptability of EIA report
EIA Report Review	Public contribute to evaluation of quality and acceptability of report
Decision	Public comment on acceptability of project impacts
Monitoring	Public evaluate impacts that occur and support project environmental management process

Table 2. Range of public involvement methodologies and characteristics (adapted from Anon. 1999).

Method	Explanation	Degree of interaction	Consensus building	Group size	Time	Costs
Information provision	One-way distribution	☺	No	▽▽▽	△	Varies
Workshops	Small group discussions	☺☺☺	Yes	▽	△△	$$
Open houses	Public can look and discuss	☺☺	No	▽▽▽	△△	$$
Community advisory committees	Using representatives	☺☺☺	Yes	▽	△△△	$$$
Public meeting	Opportunity for discussion	☺☺	No	▽▽	△	$
Public inquiry	Traditional but formal	☺☺☺	No	▽▽	△△	$$$
Informal consultation	e.g. hotline telephones	☺☺	No	▽▽▽	△△	$
Alternative dispute resolution	Negotiation and mediation	☺☺☺	Yes	▽	△△△	$$$
Requisite decision modelling	Identify interests and model	☺☺☺	Yes	▽	△△	$$$
Citizens juries	Small groups	☺☺☺	No	▽	△△△	$$$
Deliberative opinion polls	Informed voting	☺☺☺	No	▽▽▽	△	$$$
Participatory appraisal	Self-design	☺☺☺	No	▽▽▽	△	$$$
Consensus conferences	Set questions	☺☺☺	Yes	▽	△	$$$
Electronic methods	On-line voting	☺☺	No	▽▽▽	△△	$

Note: the ability of a method to fulfil the characteristics tested is graded from low ability to high ability. The ability level is represented by the number of symbols shown, with one symbol representing low ability, two represents intermediate and three high.

When to involve the public in EIA

The potential benefits of public participation, it is argued, can be more effective during scoping and baseline survey phases of an EIA, rather than waiting until the identification and evaluation of impacts stage. Generating public interest at an early stage of the planning process should help to avoid accusations that the developer is operating a 'closed door' approach over important decisions (Anon. 1999). Traditionally, the public is consulted after an environmental statement has been produced, when many of the important decisions have already been made. For major projects it may be advantageous to enable the public to actively participate in discussions on issues that could not otherwise have been questioned meaningfully at the EIA level. The public should, therefore, ideally be involved at the strategic level (through strategic environmental impact assessment) where decisions are made relating to issues such as site location.

Topics for discussion

How, who and when the public is involved in any discussions about a proposed development will largely determine the agenda for discussion. In a coastal zone management context this is likely to include:

- The validity of the development set against other demands for coastal zone locations including nature conservation and local values;
- Potential adverse impacts that could jeopardise the quality of the coastal environment for other interests (e.g. fisheries, tourism, recreation);
- Consideration of alternatives and the adequacy of any mitigation;
- The balance of local versus national gains or losses; and/or
- The acceptability of baseline data, impact predictions, and design details.

Case study: Dibden Bay, UK

In the UK the Port of Southampton's proposal to develop a deep-water container terminal extension, illustrates an attempt to involve the public from the early stages of the EIA; the use of a range of available techniques; and, to some extent, use of public opinion to inform elements of the project design.

In 2000 Associated British Ports (ABP) applied to the UK Secretary of State for the Environment, Transport and the Regions for consent to construct a new deep water terminal at Dibden Bay, opposite the existing Southampton Docks in Hampshire. The proposals comprise:

- 1.8 km of deep water quay to accommodate large ocean going vessels;
- a deep water channel, to connect the quay to the existing deep water channel;

- container transfer, storage and distribution areas;

- 1.3 km of double track railway line and an access road to link the terminal to the existing transport infrastructure.

A proposed development of this scale involves the production of comprehensive technical reports and communication materials. For the Dibden Bay proposal 57 technical reports have been produced, two Environmental Statements and a non-technical summary.

However, perhaps anticipating the controversial nature of their proposals, ABP elected to invite the public to comment at an early stage. Initial plans for Dibden Bay were set out in 1996 and the public was involved in the scoping exercise, thus contributing to the determination of priorities for impact assessment. This was achieved by establishing a Dibden Forum, with some forty organisations invited to attend, selected by the developer. ABP maintain that the Forum provided a focus for consultation and allowed their proposals to be developed as an iterative process (i.e. potential problems were highlighted early and have been designed out or mitigated against). A magazine publication the *Dibden Update* informed local residents, community groups, non-governmental organisations, local educational institutions and the media about the company's intentions.

Through focus groups the public were involved in debates concerning the acceptability of the development, mitigation ideas and potential alternatives. This enabled:

- representation of public rights and interests;
- input of local knowledge;
- key information from groups such as Royal Society for the Protection of Birds (RSPB); and
- identification of critical information gaps.

Coastal conservation measures, including the creation of a new mile-long intertidal creek and a foreshore recharge scheme, represent the core of the overall mitigation scheme proposed. Elements of the final project design and associated mitigation were conveyed using video, a static model, public meetings, an exhibition, newsletters and specialist presentations. With hindsight elements of this public participation programme might have been improved, such as the siting of displays and development of interactive web-based materials. Furthermore, a more scientific approach to public participation, using generic principles advocated for ICZM (Cicin-Sain & Knecht 1998), could have been applied.

The success of this policy, from the developer's perspective, is yet to be determined. The Public Inquiry, that will decide if and when the proposed development will go ahead, is scheduled to take place throughout 2001/2002. Potential risks of damage to the local environment are significant and local concerns include increased congestion, noise and light pollution. The EIA procedure makes provision for an exhibition of the final proposal over a 42-day period. During this period ABP received over 5000 objections. However, of these, some 2000 originated from Friends of the Earth (an environmental pressure group) campaigns in regions remote from the proposal and a further 2000 from 'Residents Against Dibden Bay' a group formed to oppose the development. Both opposition groups used postcard style pre-printed objection slips, which can represent strength of feeling but rarely articulate objections. Furthermore, on the basis of a commentary produced by Walker (2001), the opportunity afforded for public consultation has done little to deflect the opinion of those adamantly opposed to the development.

Discussion

The effectiveness of public participation depends on a number of key principles that were identified by the European Commission research project (Anon. 1999). These principles include *early participation* in the EIA process, which will help clarify the important issues; *interactive consultation* should take place, allowing views and opinions to be actively sought from both public interest groups and the wider community; consultation methods used should be *continuous* throughout the EIA process, allowing input throughout the project's development and implementation; and the participation process should provide an *opportunity for feedback* to the participants on their input. This will help to build trust between developer and participant. Furthermore, opportunities should exist for all interested individuals and groups to get involved, thus making the process *inclusive*. Finally, the process should be *transparent and honest* as trust is an important prerequisite to achieving constructive public involvement in EIAs of major projects.

In practice, even where significant investment in the participatory process can be identified, as in the Dibden Bay case study, there is a tendency to involve those who will fundamentally influence any decision (e.g. statutory consultees) before local communities. Whilst all stakeholders should take ownership of issues and responsibility for their solutions (Christie & White 1997), it is often extremely difficult to engineer equal access to knowledge, equal opportunity to attend fora and an appropriate balance of vested interests.

This paper concludes therefore that early involve-

ment of the public and integrative public participation in planning decisions concerning proposals for major development in the coastal zone can be advantageous. Democracy is directly linked to sustainability on the basis that 'fairer decision-making allows the participation of all relevant interests, this therefore leads to environmental governance that is more democratic and ecologically effective' (Mason 1999). Interactive, cost effective, inclusive and holistic methods of involvement will often demand a combination of different techniques to involve different sections of the public. In support of this: more guidance for developers, some level of standardisation, training for those facilitating public participation and a more responsible stance from environmental pressure groups would all enhance current practice.

For coastal developments the public need to appreciate legal, technical, scientific and multiple use related complexities. Population pressure in built up coastal areas is likely to mean that the numbers of stakeholders will be high. The variety of coastal zone uses enhances sectoral interest and developers should be keen to capture local knowledge of the environment.

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