



# **Participatory Approaches to Environmental Policy**

by Bruna De Marchi & Jerome R. Ravetz

Series Editors: Clive L. Spash & Claudia Carter

Concerted Action funded by the European Commission DG-XII and  
co-ordinated by Cambridge Research for the Environment (CRE)



<b>CONTENTS</b>	page
	3
<b>Overview</b>	
	4
<b>Political Background</b>	
	6
<b>Multiple Values and Perspectives</b>	
	7
<b>Examples of Participatory Methods</b>	
	11
<b>Participatory Methods Reviewed</b>	
	13
<b>Key Points for Designing Participatory Approaches</b>	
	16
<b>Summary &amp; Recommendations</b>	
	18
<b>References &amp; Further Reading</b>	

This policy research brief draws on presentations and contributions made at the ninth workshop of the Concerted Action on Environmental Valuation in Europe (EVE) entitled 'Participatory Decision Processes' held at Trieste, Italy, 17–18 March 2000, organised by Bruna De Marchi, Institute of International Sociology of Gorizia (ISIG).

This policy research brief was written by [Bruna De Marchi](#) and [Jerome R. Ravetz](#) with contributions by [Silvio Funtowicz](#), and produced by the series editors [Clive L. Spash](#) and [Claudia Carter](#).

The lead author would like to thank the following speakers at the workshop for their contributions: Bohuslav Blazek, Jacquelin Burgess, Ellen-Marie Forsberg, Matthias Kaiser, Martin O'Connor, Ortwin Renn, Parmesh Shah, Clive Spash, Andrew Stirling and Markku Wilenius.

Front cover: Public protests demanding international governments to agree on lowering greenhouse gas emissions. The Hague, Netherlands, October 2000. Photo by Jennifer Bates / Friends of the Earth.

This pdf copy is for educational use only. Any other interested users should contact the editors for obtaining the policy research brief(s). <http://www.macaulay.ac.uk/serp/research/eve/publ.htm>

ISBN 186190 0902

© Cambridge Research for the Environment, 2001

Printed on paper produced from 100% recycled fibres

# Overview

Economic techniques have been developed which extend the logic of valuation based upon monetary transactions in markets to environmental entities (see [Policy Research Brief 1](#)). However, such extension can be highly problematic in terms of theoretical foundation, scientific means and policy ends (see [Policy Research Briefs 2 and 4](#)). An alternative is the use of participatory approaches for aiding environmental decision-making. Rather than appeal to claims based on science and rationality, these approaches are advocated on grounds of justice and democracy in procedure and an appreciation that complex, multi-attribute issues cannot be effectively evaluated by a one-dimensional numeraire based on simple consumer choices.

Direct public participation in decision-making (as opposed to the procedures of representative democracy) is relatively new in Europe. In the UK, for example, its importance was recognised in 1969 in the Skeffington Report in response to the difficulties – both procedural and political – that were then emerging in the land-use planning process. During the 1990s the momentum for increasing participation developed rapidly, assisted by the Rio declaration of 1992. Of particular interest is the development of initiatives under ‘Local Agenda 21’ which encourages local participation in decision-making.

This policy research brief analyses participatory approaches in terms of their political background (pp. 4–5), theory and structure. It explains why the shift toward these alternatives to monetary valuation has been necessary (pp. 6, 11–12). Challenges to this endeavour are cited, providing some examples as evidence. Several participation methods that are currently in use are summarised (pp. 7–10) and key points for their design outlined (pp. 13–15). The focus is not only on discussing participatory methods as conflict resolution procedures, but also on their role as broader social processes that may extend and enrich the scope of environmental valuation (pp. 16–17).

Participatory approaches are advocated on grounds of justice and democracy in procedure and an appreciation that complex, multi-attribute issues cannot be effectively evaluated by a one-dimensional numeraire based on simple consumer choices.

# Political Background

In recent years awareness has significantly grown that new institutional arrangements are needed to respond to the theoretical and practical challenges of environmental valuation. This is evidenced by debates challenging policies, procedures and theories. The contours of such debates are well formed: mainstream economics advocating formal procedures and free-market policies on the one hand, and various disciplines advocating participatory decision-making and more contextually sensitive policies on the other.

Ideas of greater transparency and inclusivity have become sufficiently influential to be incorporated into legislation and policy. This has resulted in a large increase in opportunities for citizens' involvement in decision-making, but also in the reconceptualisation of such involvement, extending from the right to be informed, to the right to participate (De Marchi, Funtowicz and Pereira 2001). This applies to both specific environmental issues and more inclusive strategic orientations.

This shift in policy towards active participation is reflected in the Fifth Action Programme on the environment launched by the European Commission in 1993. In its policy document there is a strong commitment to public participation, which is treated as the *conditio sine qua non* for the realisation of sustainable development. However, putting these policies into practice is not straightforward (see also [Policy Research Brief 5](#)). In the recent assessment of the programme by the European Environment Agency (EEA 1999) there is palpable disappointment over the limited achievements to date, such as unsatisfactory progress in public mobilisation. Yet, despite this, the call for shared responsibility in policy decisions is strongly reiterated.

There are now international treaties, conventions and agreements that promote public participation in environmental decisions establishing principles and/or guidelines for their implementation. For example, the Aarhus Convention of 1998 has laid down principles for access to information, public participation in decision-making and access to justice in environmental matters – also pointing to necessary structural and institutional arrangements. It states that “in the field of the environment improved access to information and public participation in decision-making enhance the quality and implementation of decisions” (EC 1998, p. 2). Also, different levels of government of many EU member states have issued recommendations and guidelines encouraging public engagement and constructive dialogue. One example from the United Kingdom is the report by the House of Lords Select Committee on Science and Technology (2000). Furthermore, key international organisations such as the World Bank are in the process of redefining their mission and strategies to enhance ground level participation. World Bank projects are now being assessed against indicators of the quality of participation which include, among others, early involvement

of a multiplicity of stakeholders, recognition of equal status to non-government stakeholders, continuity of their participation and mutual accountability. Even in post-communist societies, participatory experiences have been encouraged and widely publicised as a mechanism for the reconstruction of the civic society.

The current enthusiasm for participation needs, however, to be tempered by recognition that participatory design must be highly sensitive to the social, economic and political context. Simply exporting methods developed in different contexts without questioning their cultural and political assumptions may prove sterile and even counter-productive. Cultivating sensitivity to context and respect for values and visions that are grounded in local history and traditions are key elements of participatory processes.

The trend toward participation also extends into the commercial world. Some multi-national corporations have changed their approach towards the public by becoming more inclusive and participatory on issues such as the management of environmental and health risks and the development of new products and services. Rather than seeking to foster an acquiescent consumer culture some companies now carefully monitor public opinion and engage in two-way communication. As a result, commercial policies, particularly concerning innovation, have occasionally been discarded on the basis of public dissatisfaction, anxiety or outrage.

The above examples illustrate that experimentation with participatory procedures in the European and international institutional environment has become commonplace. The challenge now is to transform enhanced participatory deliberation into workable, profitable and enduring processes that inform environmental decision-making and policy. This requires narrowing the gap between intention and action – platitudes to increase participation must be backed by a willingness and the ability of civil society to maintain its interest, involvement and commitment. Declared purposes, manifest expectations and expressed desires must be checked against progress in constructing new methods of decision-making which include not only new structures but also novel modes of thinking, communicating and interacting. Governments can no longer assume that they have the ‘consent of the governed’ simply by virtue of periodic elections. Consumer boycotts and support for non-violent direct actions are a reminder that ‘the public’ is now a democratic force that demands attention. The public increasingly demonstrates the competence necessary to participation on an ongoing basis – and it increasingly demands that right. The benefits of enhanced participation are particularly clear in issues where deeply held values are at stake. The case of environmental evaluation is particularly interesting, and significant, for it relates to an area which had previously been the preserve of a quantitative science.

© 1999 Dang Ngo. All rights reserved. photongo@yahoo.com



Protest against WTO policy by Greenpeace in front of the Seattle Space Needle, November 1999.

# Multiple Values and Perspectives

The very nature and dynamics of current environmental issues impede the effectiveness of explanations, forecasts or decisions based on a reductionist approach – those that assert definitive rather than probabilistic value-based judgements. Environmental systems are complex and their future characteristics uncertain. Consequently there is no privileged perspective on environmental issues. We cannot eliminate radical uncertainty about the factual basis for most applications of environmental evaluation. We can, however, encourage public debate on the merits thereof. Environmental evaluation can be viewed from the perspective of ‘post-normal science’ (Funtowicz and Ravetz 1993); that is, facts are uncertain, values in dispute, stakes high, and decisions urgent. The traditional distinction between ‘hard’ objective scientific facts and ‘soft’ subjective value-judgements is now inverted. All too often, we must make ‘hard’ policy decisions where scientific inputs are irremediably ‘soft’ in the sense of being insufficiently reliable to provide conclusive support for a policy decision.

We cannot eliminate radical uncertainty about the factual basis for most applications of environmental evaluation. We can, however, encourage public debate on the merits thereof.

Traditionally, economics has acted as a ‘normal’ science based on clearly defined postulates. It has sought to demonstrate how social goals are best achieved through the mechanisms operating automatically in an essentially simple system. The argument goes that conscious interference in the workings of the economic system will undermine achievement of these goals. However, in relation to decisions about the global environment, inherent judgements are required that go well beyond normal science. Even when pricing rather than control is advocated for the implementation of environmental policies, the prices must be set, consciously, by some agency. When externalities are uncertain and irreversible, setting ‘ecologically correct prices’ is impossible either in actual markets or surrogate markets that are used in contingent valuation studies (see also [Policy Research Briefs 1 and 3](#)). In this case special hypotheses, theories, visions and prejudices of the various policy-setting agents all come to bear on the policy debate. The public, whose members have their own perspectives, witnesses these contrasting and conflicting visions amongst actors in the policy arena. Experts are hence best regarded as one set of actors in a process of analyses and decisions. Rather than appealing to outdated notions of positivism and absolute knowledge, scientific expertise needs to establish a ‘new social contract with society’ (Gibbons 1999). This new style of governance requires that many social actors are involved in an extended dialogue where different types of knowledge and perspectives are brought to the forum and taken into consideration.

# Examples of Participatory Methods

Various methods have been designed and implemented to enhance public participation. These processes generally aim to be exploratory or consultative exercises rather than producing a final decision. Participation is viewed as an ongoing process that gradually transforms the nature of decision-making in society and relationships between established institutions and citizens.

The theory and use of terminology regarding participatory processes is far from homogeneous. Different labels may be applied to the same technique, or the same label is employed to describe different methods. ‘Participation’ is used here as a broad term describing dialogues between policy institutions and citizens for which the term ‘deliberative’ and/or ‘inclusionary’ processes is also used. A single evaluation exercise may combine different methods and utilise different groups of people simultaneously or one group over time. The currently most widely used and reported forms of participation include focus groups, in-depth groups, citizens’ juries, consensus conferences and forums. These techniques are outlined below. Other tools include multicriteria mapping (see Box 1), ethical matrix construction (see Box 2), co-operative discourse (see Box 3) and gaming techniques.

## Focus Groups

Focus groups were devised by sociologists in the 1940s and predominantly used in market research. More recently their scope and the range of applications has been expanded. Focus groups are composed of around ten people who meet only once. Their purpose is to explore and clarify a set of issues and to ascertain the positions of different participants. A facilitator manages the process. Since focus groups are mainly used in research, they are not a deliberative tool in the strict sense; but they can be integrated into deliberative processes as one of several phases.

## Box 1: Multicriteria Mapping and GM Foods

In the search for new approaches to risk evaluation where important economic, environmental and health issues are at stake, Stirling and Mayer have recently investigated the potential for multicriteria mapping (MCM). A pilot study was conducted in 1998 concerning the growing of genetically modified (GM) oilseed rape in the UK. The study highlighted the importance of final decisions being politically legitimate and democratically accountable. MCM is a verifiable tool which ‘maps’ the debate under consideration. It can be used on its own, or as part of a deliberative process of appraisal. Using this technique policy options can be compared in a systematic and transparent way.

Source: Stirling, A. and S. Mayer (1999) *Rethinking Risk: A Pilot Multi-Criteria Mapping of a Genetically Modified Crop in Agricultural Systems in the UK*, Brighton: SPRU, University of Sussex.

## Box 2: Vested Interest in Fisheries Addressing Ethics

An 'ethical matrix' was developed for assessing scenarios for the future of Norwegian fisheries to show how different technologies score on various values involved in policy decisions. The project consisted of several phases concluding with a two-day workshop with 45 representatives from different parts of fisheries-related sectors who participated in the ethical evaluation based on relevant facts, existing uncertainties and value perspectives. This case study demonstrated that the combination of scenario modelling, ethical matrices and a participatory approach can help clarify ethical issues and policy options.

Source: Kaiser, M. and E.M. Forsberg (2001) 'Assessing Fisheries – Using an Ethical Matrix in a Participatory Process', *Journal of Agricultural and Environmental Ethics* 14(2): 191–200.

## In-depth Groups

An in-depth group gives concentrated consideration to the topic under consideration, and this involves meeting several times. The result or output of such groups is usually a joint product such as a report, charts, notes or drawings. Similar to focus groups, in-depth groups include the presence of one or more facilitators who introduce the items for discussion, present materials (usually following a pre-defined protocol) and monitor the debate and group dynamics on which they subsequently report. The method can provide great insight into the ways that people frame and understand different issues and is therefore predominantly used in research. One example of their application was the EC-funded project ULYSSES on urban lifestyles, sustainability and integrated environmental assessment (De Marchi *et al.* 1998).

## Citizens' Juries

Citizens' Juries are similar in structure to in-depth groups, with 12 to 20 participants. These usually meet several times and/or for several days or more. Typically, 'expert' presentations are made allowing participants to discuss, question and evaluate information. The outcome is a group report, which is usually sent to a decision body. As the name implies, their deliberations have a certain weight, and they are seen as a way of obtaining a considered public opinion on policy issues (Smith and Wales 2000).

Other types of processes may be considered as variations on such small group participation, including, for example, planning cells, citizen panels and citizens advisory groups. These have been applied in both Europe and the US, and in some cases have become institutionalised (and on occasion become overly bureaucratized as a result).

## Consensus Conferences

Consensus conferences are highly structured events involving much preparatory work with participants before the actual 'conference'. Usually there is an initial private phase which is followed by a public one, where the general public can attend. The media is usually encouraged to cover the public event. The 15 to 20 participants are drawn from different social categories and provided with preliminary information on the key



issues of a given problem. They meet experts of their choice and, after questioning, discussion and debate, produce a report for the sponsor, which is usually a public authority. First designed and applied in Denmark on the subject of food irradiation, consensus conferences have taken place on different issues in many European countries – recent examples being the French public conference on GMOs (Joly *et al.* 1999) and the UK conference on nuclear waste (UK CEED 1999). Consistent with their elaborate structure and cost, the results have considerable political weight.

### Forums for Interest Groups

Vested interests or stakeholders may be gathered together for meetings or dialogues to obtain insight into the views of people who express an interest in the issue under scrutiny. These meetings can take a variety of forms. At one extreme are those convened by public authorities or private companies who effectively set the agenda. Citizens' groups now have more standing in such forums, and so the terms of the dialogue have generally become more two-way. Such forums are similar to traditional political negotiations in that the dialogue is conducted among recognised stakeholders rather than among randomly selected citizens.

Heavy-handed use of police methods, including teargas attacks, on peaceful protesters. Seattle, 30 November 1999.

### Coercive Dialogue and New Forms of Protest

Protests such as those recently in Seattle and Prague can be regarded as sharing some commonalities with the forms of participatory dialogues as discussed here. Whenever issues of power are involved, dialogues involve a mixture of reason, rhetoric and coercion. Unlike 'traditional' strikes and blockades, these are not intended to win concessions by impeding basic economic activities. Rather, they have the dual goals of causing disruption to official deliberative activities and making symbolic protests for diffusion by the global mass media. They combine the lessons learned about the effectiveness of non-violent coercion with the opportunities offered by new technologies. For example, the protest at the Seattle World Trade Organisation meeting in November 1999 was organised over the internet. Protesters gathered from across the world to re-assert the 'rights' of the environment (and the workers) against those of global free trade and the market (see [Policy Research Brief 6](#)). Unlike traditional hierarchical mass movements, here individual members and non-governmental groups gather in extended networks which tend to take an 'amoeba shape' with fluctuating contours and no single centre. Similarly, there is no uniform adoption of a particular set of tactics. In any one demonstration, there are numerous positions (on demands and on actions) among both protesters and



Photo: Independent Media Center

### Box 3: Co-operative Discourse

In the context of risk assessment, Renn and Webler (1992) have proposed a hybrid model of citizens' participation which they have termed 'co-operative discourse'. This has been applied to studies on energy policies and waste disposal issues in Germany, waste disposal facilities in Switzerland and sludge-disposal strategies in the US. The model consists of three steps. The first is to elicit all the relevant stakeholders' values and criteria for judging different options using value-tree analysis. The output is a series of lists of hierarchically structured values that represent the concerns of each affected partner. These can be combined to form a joint 'value tree' in discursive sessions. The second step consists of a transformation of evaluative criteria into indicators against which to evaluate the performance of different policy options. Such evaluation is carried out by experts from different disciplines and backgrounds, using a modified version of the Delphi-procedure. The third step consists of evaluating potential solutions using groups of randomly selected citizens, whose role is similar to those of professional judges in a jury trial. The experts and stakeholders involved in previous steps act as witnesses.

Source: Renn, O. and T. Webler (1992) 'Anticipating conflicts: Public participation in managing the solid waste crisis. *GAIA Ecological Perspectives in Science, Humanities, and Economics* 1(2): 84–94.

their targets, with almost all sharing a highly sophisticated understanding of the diversity and nuances of their particular roles.

To summarise, each of the approaches sketched above have their specific advantages and drawbacks. Therefore, the selection (or combination) which is most appropriate to a specific situation needs to be carefully assessed. Considerations of time, scale, representation, available resources and type of mandate need to be addressed. Even exercises in participation that emerge spontaneously go through a learning process, eventually adopting a structure or style based on experience.

### The Role of the Facilitator and Expert

Participatory processes usually require some form of skilled assistance, especially when conducting formal procedures for informing environmental planning and policy. Special tools may be employed to help the parties to better explore the issue under discussion. Their purpose is to clarify perspectives, knowledge and opinions, to construct alliances, to imagine alternative solutions and to design strategies. Such tools may include multicriteria decision aids, multicriteria mapping, computer models, scenarios and different kinds of combinations of information and communication technologies (see also [Policy Research Briefs 2](#) and [4](#)). The administration of these tools requires the guidance of someone who is an expert in their use.

Facilitators and experts are part of the dynamic of personal interactions in the process and should not be expected or assumed to be neutral and beyond scrutiny. To achieve clarity and transparency on which trust depends, their role and commitments should be explicit and open to discussion. In some cases of well-defined controversy, an accepted 'neutral' party may be at the core of the process of facilitating the discussion and arranging a possible compromise among actors with different interests and viewpoints. Depending on this person's role and mandate they may be described as *negotiator*, *mediator* or *arbitrator*, indicating their increasing degree of involvement and influence. For example, arbitration implies a legally binding outcome which by prior agreement cannot be appealed against. A variety of techniques and tools can be used to structure the discussion and to reach (binding or non-binding) compromise outcomes.

# Participatory Methods Reviewed

Some valuable attempts have been made to describe, classify and evaluate the different approaches (e.g. Renn *et al.* 1995, Rowe and Frewer 2000). However, in general, theoretical systematisation is still in its infancy and criteria for evaluation of performance are poorly developed. Even when such criteria are conceptually defined (such as effectiveness, representation, competence, fairness) the problem remains of operationalising and ‘gauging’ such indicators. Moreover, if only the specific exercise under consideration is evaluated, and its possible side effects treated as externalities, its general social significance may be completely overlooked.

The main strength of participatory approaches consists in their scope for creativity. That is, they not only facilitate finding and evaluating alternative solutions, but also framing and re-framing problems in different ways. Thus deliberative participation allows new and broader perspectives and insights to develop. In this sense, participatory approaches go beyond conflict resolution procedures, where only those with a precise and definite vested interest take part. Rather they become a way of enhancing deliberative democracy and favouring social debate on issues of common concern, which are recognised as complex and therefore not amenable to technical fixes or one-shot solutions.

However, those committed to and experienced in the organisation of participatory exercises are concerned that these may result in endless discussion, gradually losing the interest of those who had been led to expect some tangible benefit from the exercise. Participants may come to feel that they are getting nowhere, the exercise suffering due to boredom and frustration. Another danger is ‘bureaucratic capture’ – that is, involving people in discussions as a means of deflecting protest, inhibiting actions and controlling outcomes. *Cui bono?* (who benefits?) is then the question to be asked at all times, in order to establish whether a participation process is capable of genuinely empowering citizens or is merely a new disguise for manipulation and control.

The genuine will of institutions to develop a new mentality and new procedures is pivotal to the success of participation. To this end, some degree of formality is necessary for the management

Deliberative participation allows new and broader perspectives and insights to develop.



Photo: CRE

During The Hague  
COP 6 Climate  
Convention 6000 people  
built a dike as a symbol  
of the need for action



Photo: J. Bates / Friends of the Earth

The genuine will of institutions to develop a new mentality and new procedures is pivotal to the success of participation.

and monitoring of participatory processes in all their different phases, including the frequently neglected phase of implementing the resulting recommendations. Participatory processes are novel in many ways which go beyond the establishment of open dialogue and creativity. The lack of established structures require innovation; also processes need to be reflexive. Defining the scope and purpose is as much a part of the participatory process as the deliberations themselves. The articulation of methods and their development in practice have to go hand in hand. Thus the outcome is not conditioned by an inflexible method based on strict formal criteria, but is rather constructed through a process, which ideally fosters mutual learning, acknowledges the possibility of error and allows for surprise.

Participatory methods can also be understood as a realisation of post-normal science. They are used when an issue has uncertainties and the decision-stakes are high; they involve 'extended peer communities' who deploy their 'extended facts' (also described as 'situated knowledge') in the argument. Of course, this will be a matter of degree; a stakeholder forum or an arbitration will be more like an ordinary decision process, and a coercive dialogue, less. What is crucial in any case is whether there is a genuine dialogue between the parties; and whether the experts acknowledge that they have something to learn from others. If not, then the process is merely normal science under another guise.

# Key Points for Designing Participatory Approaches

As shown in previous sections, participatory decision-making processes can positively contribute to environmental policy, but they also have their own characteristic weaknesses and pitfalls. To ensure success, some principles guiding their development and deployment are needed. These are summarised as follows under four headings: knowledge sharing, congruence, resources and trust.

## Knowledge Sharing

All interested or affected parties should participate in the framing of the issue to be considered. They should be able to contribute elements for its definition, clarification, analysis and process management. Scientific inputs are fundamental, but also subject to critical assessment as to their quality, relevance and limitation. Scientific information rarely can determine a policy issue concerning complex natural and social systems and must be supplemented by other inputs from a multiplicity of sources, including life experiences and social norms.

Scientific information rarely can determine a policy issue concerning complex natural and social systems and must be supplemented by other inputs from a multiplicity of sources, including life experiences and social norms.

One ‘language’ cannot be considered as superior to others, providing the standard into which all messages are to be coded. Different participants will have perspectives that are, at least partly, incompatible; and the languages they use may be difficult to translate into common understanding. Reciprocal understanding is assisted by a genuine effort to understand another party’s discourse. In this way, fundamental controversies can be distinguished from differences in coding styles and interpretation such that the real issues can be identified. Integration of knowledge is then possible by combining elements which, initially considered as contradictory, can be treated as complementary.

## Congruence

Congruence describes the ability of a participatory approach to reflect the real-world processes it is supposed to simulate. A process can be regarded as ‘internally’ valid if it is able to meaningfully integrate the elements of the deliberative process and as ‘externally’ valid if it provides overall accountability (i.e. a fair and accepted process).

This requires careful attention to addressing the remit and particulars of the process, especially:

- the overall purpose of the exercise (e.g. if it is exploratory or intended to reach a policy conclusion for implementation);
- the type and source of the mandate of the participating parties, and the nature of their constituencies;
- the status of the parties, such as whether they are invited or self-appointed, and whether they participate as individuals, as mandated representatives of specific socio-demographic groups, or as spokespersons for other interests (e.g. non-human species, the unborn, children, minorities);
- the procedural rules, including duration of process and treatment of consensus and dissent. Such rules, even when internally generated, must be made explicit, with regard to both procedures and outcomes. Facilitators may ensure that the game is played according to the rules;
- the expected outcomes and ‘products’, and the ways in which these will be reported. These may be recommendations, suggested solutions, consensual decisions or reports of contrasting opinions, depending on the mandate;
- who monitors the process during its development and assesses it afterwards; and the way this is conducted;
- what happens next, i.e. are recommendations followed-up and do participants see tangible evidence that their efforts were worthwhile.

Overall, congruence is very important as an indicator of representativeness, legitimacy, and accountability, and therefore as a sign of the eventual success of the participatory process.

## Resources

A distinction can be made between internal and external resources, at least for heuristic purposes. **Internal resources** relate to the capabilities, skills, expertise and values which the parties bring to the process and which can develop into ideas and proposals for action. Since participation is a process that recognises complexity and seeks co-existence over domination, values here are seen as resources rather than hindrances. Considerations of fairness and competence (see Renn *et al.* 1995) may support initiatives

for building the capacity of participants, and with regard to language and social skills, accommodate cultural diversity in the process. Inequalities in material resources must also be addressed. Facilitators have a fundamental role in helping to preserve the integrity of all the participants if confrontation becomes harsh and group dynamics evolve towards aggression or ostracism.

**External resources** refer to contributions by the social milieu or the wider context in which the participatory process takes place. Unlike jurors in a judicial process, the parties in deliberative processes are supposed to be visible and interact with the ‘external world’. They are to make their works available to a larger public so as to create synergy with initiatives, activities and processes. This occurs via publicity but also within the social networks in which each party is involved: family, friends, profession, leisure, culture, politics, religion and so on. These shape a large web, which encircles and nourishes the participatory exercise *strictu sensu* if it goes well, but which may also serve to strangle it when it becomes unviable.

## Trust

Trust is the *conditio sine qua non* for any effective and creative collaboration among participants representing different interests. This must be fostered self-consciously as a common task. Since participatory processes have emerged as a response to dissatisfaction with present institutional arrangements, participants must understand and accept that they are not automatically entitled to personal trust by virtue of their positions. Trust is not to be equated with unconditional inter-personal confidence; rather it is to be conceived as a kind of ‘work in progress’ aimed at establishing principles and rules of reliability, reciprocal recognition, and mutual respect, even if differences remain and conflicts emerge. The construction of such ‘internal trust’ in the group is essential for enabling the parties in a participatory process to respect their mandate and maintain their personal integrity. This ‘internal trust’ between the group participants can be a kind of ‘therapeutic’ experience but be of limited overall significance. Therefore, ‘external trust’ is equally necessary – referring to the recognition and meaningfulness of the experience within the broader political context; for example, the means by which participants bring their constituents along and to accept and own the understandings that they have achieved in their group. There are naturally conflicts between internal and external trust; and the success of the work depends on a clear recognition of these conflicts as inevitable and a legitimate aspect of the participatory process.

# Summary & Recommendations

**P**resent opportunities for participatory processes, enshrined in European legislation, favour a constructive and co-operative dialogue between parties. Although the current trend calling for increased ‘participation’ is new, the problems that deliberative procedures try to address are as old as society itself. General indications and insights for the design of participatory approaches are emerging and permit the identification of potential strengths as well as weaknesses, failures and pitfalls. It is of prime importance that participation be understood and realised in its context.

Participatory approaches contribute to the realisation of three main goals, namely:

- to frame policy issues in broad terms, including all sectors of society and the natural environment;
- to render the style of decision-making more responsive to democratic principles; and
- to improve the quality of decisions by incorporating different perspectives and accessing a variety of resources.

**Participatory approaches are based on reasoning and evaluation of arguments.** A great variety of participatory methods have been developed within different theoretical frameworks. Many of these participatory experiences have been critically analysed, addressing issues relating to diverse geographical, cultural and political settings. Common to all of these is an attempt to apply discursive reasoning, rather than some form of scientific rationality. Arguments are evaluated in a dialogue, rather than conclusions being simply deduced logically from premises.

**Participation is a complement to, not a substitute for, existing modes of decision-making.** Participatory processes offer a complementary approach, one in which uncertainty and value-judgements are incorporated and deliberated



amongst all concerned citizens. Participatory approaches are a necessary complement to expert inputs and include reasoned deliberation, judgement and justification which must permit the entertaining of contradictory considerations in a reciprocal way.

**There is no simple model for participation to be applied in all circumstances.** Individuals with a genuine commitment to enhancing democratic participation do not claim to have developed procedures that are optimal for all possible policy contexts, nor do they rely on the existence of a single set of accepted criteria. Rather, they consciously and cautiously explore the possibilities for dialogue, reciprocal learning and co-existence of a plurality of reasonable claims, and also of incompatible points of view.

**Participatory approaches provide legitimacy to political processes.** The creative involvement of citizens in governance is both urgent and possible. The traditional sources of legitimacy of democratic governments are now being challenged in the post-normal world of complexity and uncertainty. Repeated official assurances that something is ‘safe’ have eroded public trust. Decisions cannot be justified simply by appeal to expert knowledge, claiming certainty and ‘objectivity’. Democratic processes can no longer be restricted to the periodic ballots, essential though these are, but require ongoing dialogue between decision-makers and citizens.

**The use and design of participatory approaches must be context-specific.** Whatever is undertaken as part of participatory decision processes will be set within a wider political process. Therefore the problems to be addressed relate not only to the structure of a particular exercise and its declared purposes, but also to the meaning that it will have in a given context as well as to the broader processes which it will favour or hinder.

## References & Further Reading

- Beierle, T. (1998) *Public Participation in Environmental Decisions: An Evaluating Framework Using Social Goals*. Discussion Paper 99-06, Washington DC: Resources for the Future.
- Bohman, J. (1996) *Public Deliberation*, Cambridge, MA: MIT Press.
- De Marchi B., S. Funtowicz, and Â. Guimarães Pereira (2001) 'From the right to be informed to the right to participate: Responding to the evolution of the European legislation with ICT', *International Journal of Environment and Pollution* 15(1): 1–21
- De Marchi B., S. Funtowicz, C. Gough, Â. Guimarães Pereira and E. Rota (1998) *The ULYSSES Voyage: The ULYSSES Project at the JRC*. Report EUR 17760EN, Ispra: European Commission, Joint Research Centre (see also <http://alba.jrc.it/ulysses.html>).
- Elster, J. (1998) *Deliberative Democracy*, Cambridge: Cambridge University Press.
- European Commission (1993) 'European Council Resolution 93/C 138/01 of the Council and the Representatives of the Governments of the Member States, meeting within the Council of 1st February 1993 on a Community programme of policy and action in relation to the environment and sustainable development.' Official Journal of the European Communities C 138 of 15.05.1993.
- European Commission (1998) *Aarhus Convention on access to information, public participation in decision making and access to justice in environmental matters*. 25 June 1998. EU Document No. ECE/CEP/43.
- European Environment Agency (EEA) (1999) *Environmental Assessment Report*, ISBN 92-9157-202-0.
- Funtowicz S. and J.R. Ravetz (1993) 'Science for a post-normal age', *Futures* 25(7): 739–755.
- Gibbons, M. (1999) 'Science's new social contract with society', *Nature* 402: C81–C84.
- Gutmann, A. and D. Thompson (1996) *Democracy and Disagreement*. Cambridge, MA: Harvard University Press.
- Select Committee on Science and Technology (2000) *Third Report Science and Technology*, HL paper 38-I, <http://www.parliament.the-stationery-office.co.uk/pa/ld199900/ldselect/ldsctech/38/3802.htm>.
- Jasanoff, S. (1999) 'The songlines of risk', *Environmental Values* 8(2): 134–152.
- Joly, P.B., C. Marris, G. Assouline and J. Lemarié (1999) 'Quand les candides évaluent les OGM. Nouveau modèle de 'democratie technique' ou mise en scène du débat public?', *Annales des mines*, Avril, pp. 12–21.
- Joss, S. (ed.) (1999) 'Public participation in science and technology', Special Issue of *Science and Public Policy* 26(5).
- Renn, O., T. Webler and P. Wiedemann (eds) (1995) *Fairness and Competence in Citizen Participation*, Dordrecht: Kluwer.
- Rowe G. and L.J. Frewer (2000) 'Public participation methods: A framework for evaluation', *Science, Technology and Human Values* 25(1): 3–29.
- Skeffington, A. (1969) *People and Planning*, London: HMSO.
- Smith, G. and C. Wales (2000) 'Citizens' juries and deliberative democracy', *Political Studies* 48: 51–65.
- UK CEED (1999) *Radioactive Waste Management: UK National Consensus Conference*, Cambridge: UK Centre for Economic and Environmental Development.
- Schoen, D. and M. Rein (1994) *Frame Reflection. Toward the Resolution of Intractable Policy Controversies*, New York: Basic Books.

## EVE Concerted Action

Cambridge Research for the Environment, Department of Land Economy,  
University of Cambridge, 19 Silver Street, Cambridge CB3 9EP, UK

Fax. +44 (0)1223 337130

Webpage: <http://www.landecon.cam.ac.uk/eve/>

## Concerted Action on Environmental Valuation in Europe (EVE)

This policy briefing series communicates the findings from nine workshops and three plenary meetings under the EVE programme. These showed the diversity of research currently being undertaken in the area of environmental values and their policy expression. The type of information relevant to the decision process extends from ecological functioning to moral values. Thus a range of approaches to environmental valuation, from ecology to economics to philosophy were presented.

EVE was a 30 month project which started in June 1998 funded by the European Commission, Directorate General XII within Area 4, Human Dimensions, of the Environment and Climate RTD programme, Contract No. ENV4-CT97-0558.

The project was co-ordinated by Clive L. Spash and managed by Claudia Carter, Cambridge Research for the Environment (CRE) in the Department of Land Economy, University of Cambridge. The following research institutes were partners in the concerted action:

Bureau d'Economie Théorique et Appliquée (BETA), University Louis Pasteur, Strasbourg, France  
Cambridge Research for the Environment, Department of Land Economy, University of Cambridge, UK  
Centre for Human Ecology and Environmental Sciences, University of Geneva, Switzerland  
Centre d'Economie et d'Ethique pour l'Environnement et le Développement (C3ED), University of Versailles Saint-Quentin-en-Yvelines, France  
Centre for Social and Economic Research on the Global Environment (CSERGE), University of East Anglia, Norwich, UK  
Department of Economics and Economic History, Autonomous University of Barcelona, Spain  
Department of Economics and Social Sciences, Agricultural University of Norway, Aas, Norway  
Department of Environmental Economics and Management, University of York, UK  
Department of Philosophy, Lancaster University, UK  
Department of Rural Development Studies, Swedish University of Agricultural Sciences, Uppsala, Sweden  
Department of Applied Economics, University of Laguna, Tenerife, Canary Islands, Spain  
Environmental Economic Accounting Section, Federal Statistical Office, Wiesbaden, Germany  
Ethics Centre, University of Zurich, Switzerland  
Fondazione Eni Enrico Mattei (FEEM), Milan, Italy  
Istituto di Sociologia Internazionale di Gorizia (ISIG), Gorizia, Italy

The purpose of this concerted action was to analyse effective methods for expressing the values associated with environmental goods and services, ecosystem functions and natural capital, with a view to the achievement of the goals summarised in the concept of sustainability. The appropriate role of decision-makers and citizens in environmental policy-forming became a central focus in the debate over how different values should be expressed.

## **Titles in the EVE Policy Research Brief Series:**

- 1 The Concerted Action on Environmental Valuation in Europe (EVE): An Introduction**  
*by Clive L. Spash*
- 2 Conceptualising and Responding to Complexity**  
*by Giuseppe Munda*
- 3 Natural Capital**  
*by Martin O'Connor*
- 4 Conceptions of Value in Environmental Decision-Making**  
*by John O'Neill & Clive L. Spash*
- 5 Conceptualising Sustainability**  
*by Anton Leist & Alan Holland*
- 6 Property, Rights and Fairness**  
*by Roderick Lawrence*
- 7 Environmental Quality, Health and the Value of Life**  
*by Marc Willinger*
- 8 Value Transfer and Environmental Policy**  
*by Stale Navrud & Olvar Bergland*
- 9 Greening National Accounts**  
*by Martin O'Connor, Anton Steurer & Marialuisa Tamborra*
- 10 Participatory Approaches to Environmental Policy**  
*by Bruna De Marchi & Jerome R. Ravetz*
- 11 Environmental Valuation in Europe: Findings from the Concerted Action**  
*by Clive L. Spash & Claudia Carter*

