ANALYSIS

Participatory approaches to environmental policy-making: the European Commission Climate Policy Process as a case study

Sybille van den Hove *

C3ED, Université de Versailles-Saint Quentin en Yvelines, 47, bd. Vauban, 78047, Guyancourt Cedex, France

Received 22 January 1999; received in revised form 25 October 1999; accepted 15 December 1999

Abstract

The paper investigates the relevance of participatory approaches to environmental policy-making when sustainable development is taken as the encompassing normative basis for environmental governance. In the first section, we illustrate the frequent references to participatory approaches in environmental decision-making. We then look at environmental issue attributes as determinants of the problem-solving requirements for environmental decision-making. We conclude the section by investigating whether and how participatory approaches could answer some of these requirements. In the second section, an illustration is proposed with the presentation of a participatory process that took place in 1997, during the last phase of the international negotiations that led to the Kyoto Conference of the Parties to the UN Framework Convention on Climate Change, and in 1998 in the preparation of the post-Kyoto phase. The process, organised by the European Commission, consisted of a series of workshops whose objective was to furnish timely inputs responding to the European Commission's information needs for climate policy formation in the pre- and post-Kyoto periods. This was to be achieved through the establishment of interfaces between: (i) the research community; (ii) the EC Climate negotiation team and through it the EU Member States representatives; (iii) other Commission interests (the 'inside stakeholders'); (iv) a range of 'outside' stakeholders including industry, finance and commerce, employment, environment, consumer and citizen interests. We reflect on the participatory nature of the process and show how the process met some of the decision-making requirements identified in the first section.

Keywords: Participatory approaches; Environmental policy-making; Climate change; European Commission; Research Policy interface; Stakeholders participation

E-mail address: sybille.vandenhove@c3ed.uvsq.fr (S. van den Hove)
1. Participation and sustainable development

1.1. The call for participatory approaches

More and more, sustainable development is presented as the sensible response to the increasingly worrying situation of our planet’s environment and natural resources. Embedded in most interpretations of this broad concept is a requirement for more participatory approaches to environmental decision-making. Such a call can be found in discourses on sustainable development emerging from a variety of sources. Table 1 gives examples of participatory calls in different institutional contexts.

Analysts of sustainable development also agree on the necessity for participatory approaches. O’Riordan (1996, p. 140), for instance, suggests ‘that the sustainability transition is a profoundly radical combination of ecological imperatives, social redistribution and political empowerment which will involve global management regimes, the limitation of national sovereignty and greatly enhanced local involvement and self-reliance.’ While Faucheux (1997) writes: ‘The more and more frequent bringing together of heterogeneous stakeholders in ‘communities’ is (...) a desirable (but, on its own not sufficient) practice for sustainable development. (...) The setting up of environmental policies based on the concerns of members of a society corresponds to the implementation of a real vision of social transformation, that of sustainable development in all its dimensions: economic, social and ecological.’

Similar calls for more consultative, participatory and deliberative approaches are made by more and more analysts and actors in the environmental field who argue that stakeholders involvement in decision-making (i.e. setting of rules, norms, policies) is needed to tackle environmental problems. To Lafferty and Meadowcroft (1996, p. 261), for instance, ‘mechanisms to involve groups in negotiation, accommodation and the assumption of collective responsibility may be a necessary condition for seriously addressing environmental dilemmas’ even though these authors recognise that ‘they are certainly not sufficient’. While Gundersen (1995) suggests that more and better public deliberation is the way forward if we are to enhance ‘environmental rationality’ in public affairs and the responsiveness of our environmental institutions. Grounding environmental decision-making in deliberative processes, he believes, will lead to more ‘collective, holistic and long-term thinking’, which he takes as the basic requirement of environmental rationality.

1.2. The justification based on environmental issues attributes

Many justifications for such calls for participatory approaches to environmental problems relate to the characteristics of environmental issues. Environmental phenomena frequently present four major physical characteristics: complexity, uncertainty, large temporal and spatial scales, and irreversibility.

1. Environmental phenomena are complex because the functioning of the ecosphere obeys non-linear dynamics that are intrinsically com-
Table 1
Examples of institutional calls for participatory approaches to sustainable development

<table>
<thead>
<tr>
<th>Institution</th>
<th>Statements</th>
<th>Arguments</th>
</tr>
</thead>
<tbody>
<tr>
<td>United Nations Conference on Environment and Development, 1992</td>
<td>‘Environmental issues are best handled with the participation of all concerned citizens, at the relevant level’ (Rio Declaration on Environment and Development, Principle 10, United Nations 1992a). Agenda 21 calls for ‘a global partnership for sustainable development’ while ‘the broadest public participation and the active involvement of the non-governmental organisations and other groups should also be encouraged’ (United Nations, 1992b, p. 1)</td>
<td>‘Experience has shown that sustainable development requires a commitment to sound economic policies and management, an effective and predictable public administration, the integration of environmental concerns into decision-making and progress towards democratic government, in the light of country-specific conditions, which allows for full participation of all parties concerned.’ (Agenda 21, § 2.6)</td>
</tr>
<tr>
<td>Fifth European Community programme of policy and action in relation to the environment and sustainable development: ‘Towards Sustainability’, 1993</td>
<td>‘(The programme’s objectives) cannot be met by actions at Community level alone, but rather on the basis of a sharing of responsibility at all levels of society, including governments, regional and local authorities, non-governmental organisations, financial institutions, production, distribution and retail enterprises and individual citizens’. It calls for a strategy of ‘full integration of environmental and other relevant policies through the active participation of all the main actors in society (…)’ (European Communities, 1993, p. 22)</td>
<td>Following the ‘principle of subsidiarity’, decisions are to be taken ‘as closely as possible to the citizen’ (ibid., p. 78), now since ‘the ultimate goal of sustainable development can only be achieved by concerted action on the part of all relevant actors working together in partnership’, the subsidiarity principle is combined ‘to the wider concept of shared responsibility’ which ‘requires a much more broadly based and active involvement of all economic players including public authorities, public and private enterprise in all its forms, and above all, the general public, both as citizens and consumers.’ (ibid., p. 26). ‘The Programme is not merely a task for the Community institutions: it will require the full partnership and full support of all the actors necessary to make it work.’ (ibid., p. 98). ‘Decisions affecting sustainable development are a shared responsibility.’ (ibid.)</td>
</tr>
<tr>
<td>European Commission’s General Consultative Forum on the Environment and Sustainable Development, 1997</td>
<td>‘Decisions affecting sustainable development should be open and based on informed participation by affected and interested parties. A personal sense of responsibility and involvement should be promoted amongst all sectors of society. This requires a knowledgeable public, a free flow of information and fair and equitable opportunities for review and redress.’ [Ninth of the Forum’s ‘Twelve principles of sustainable development’, European Commission (1997, p. 120)]</td>
<td></td>
</tr>
</tbody>
</table>
### Table 1 (Continued)

<table>
<thead>
<tr>
<th>Institution</th>
<th>Statements</th>
<th>Arguments</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. President’s Council on Sustainable Development, 1996</td>
<td>‘[To achieve sustainable development, America] needs a new collaborative decision process that leads to better decisions; more rapid change; and more sensible use of human, natural, and financial resources in achieving its goals.’ (PCSD, 1996, p. vi). The Council recommends the creation of structures that will involve more people and a wider range of interests in shaping community visions and making public policy’. (ibid., p. 7)</td>
<td>‘These will improve decisions, mitigate conflict, and begin to counteract the corrosive trends of cynicism and civic disengagement that afflicts [the American] society.’ (PCSD, 1996, p. 7)</td>
</tr>
</tbody>
</table>
plex, where relations between sub-systems are manifold, and where equilibria are unstable. Moreover, there exist many inter-linkages among environmental phenomena, which lead to even more complexity.

2. Uncertainties attached to environmental phenomena are of two different kinds. The first kind is rooted in imperfect scientific knowledge and could then be partially reduced in the future if research is carried on. But whatever the level of knowledge, there will always remain the second kind of uncertainties, intrinsic uncertainties, which are inherent in the irreducible complexity and indeterminacy of some processes.

3. Most of the time, the causes and effects of environmental processes extend over large-distance scales, up to the whole planet, and over long time spans, significantly exceeding the lifetime of a human being.

4. Finally, environmental phenomena can be irreversible in the sense that some damage once done cannot be repaired. Some ecosystems and some life-supporting functions may not be restored once a critical level is reached. And not only non-renewable, but also renewable resources can be brought to exhaustion.

All these physical characteristics of environmental processes have consequences for what we call the social characteristics of environmental issues. In turn, these physical and social characteristics determine the type of problem-solving processes needed to tackle with environmental issues.

1. On top of the physical complexity of environmental phenomena, additional complexity arises from the social dimension of environmental issues. Most of these can be understood as conflicts of interests between actors. Further, an actor will often have multiple interests that may conflict with one another. Conflicts may also arise between actors over the nature of the problem and potential solutions (e.g. the debate over climate change). Finally, conflicts may exist between issues. For example, sulphate aerosols may help offset climate change, but they are a key cause of local acidification. These complex, dynamic aspects of the problems suggest that we are facing problem-solving situations that need to be comprehended as dynamic processes of capacity building, aiming at innovative answers.

2. Another social feature of environmental issues emerging from their complex nature is that they show a strong degree of transversality in the sense that they relate in one way or another to many different aspects of life in our modern societies: industrial production, transportation, agriculture, leisure, consumption, science, technology. They are highly cross-sectoral and so the requirement is for problem-solving processes that will allow for co-ordination across policy areas.

3. The uncertainty arising from insufficient scientific knowledge imposes a need for the progressive integration of additional information as it becomes available, and a need to provide flexible and adjustable answers. While the irreducible uncertainty attached to some issues implies a plurality of legitimate values, hence a plurality of legitimate standpoints in the examination of possible solutions (Holland et al., 1996; O’Connor, 1998). It calls for decision-making processes that allow for the integration of these different value judgement and different logics.

4. The complexity, the uncertainty and the large time and space scales involved in environmental issues lead to situations of diffused responsibilities and impacts. It is often not easy or even impossible to identify where responsibilities lie and who the victims are. This is even more true since in many environmental issues, there is significant ‘unevenness of impacts’ which are transferred socially, spatially, and temporally (Blowers and Leroy, 1996). On the other hand, most solutions set up to tackle environmental problems will need to be implemented by individuals. Hence, many different

---

4 For a more detailed treatment of the ‘uncertainty’ dimension of environmental issues, see de Marchi (1995) who identifies different types of uncertainty in addition to scientific uncertainty: legal, moral, societal, institutional, and proprietary uncertainty, all of which compose what she calls ‘situational’ uncertainty which ultimately refers to ‘inadequacy of available information in relation to necessary decisions’.
actors end up being involved in environmental issues: as originators of the problem; as identifiers of the problem; as victims or potential victims; as necessary actors for the design or the implementation of the solution; or as a combination of these. So a high level of collective action is often required. The problem-solving approach set up in such a framework will need to involve those various actors all through the process.

5. Complexity and large space scales can also lead to the disappearance of the classical division between local and global aspects. It then becomes necessary to ‘take account of microscopic as well as macroscopic aspects’ in the problem-solving process (Mormont, 1996, p. 140). Again, this might be done more easily through the involvement of actors from those various levels.

6. The long time span over which environmental issues extend has other consequences. In particular, the fact that often the chosen solution will bring burdens that will be felt in the short term (e.g. costs or mandatory modifications of lifestyles) while the benefits will only be felt in the longer term. This implies that immediate sacrifices will often be required from different groups of actors in the implementation of a solution. A possible way to obtain agreement over such sacrifices is to ensure that the concerned actors are involved in the problem-solving process. Another consequence of long time spans is that they cannot be easily coped with by traditional politics which are typically short-sighted. And the fact that many environmental issues are intrinsically widespread in space is also a challenge to traditional politics. So there is a need to devise new political ways and new policy options to fill this gap, while maintaining the democratic exigency as a philosophical and political choice.

7. The irreversibility of some environmental phenomena also informs the choice of problem-solving process: if one wishes to avoid being trapped in a no-return situation, one needs to depart from remedial action and opt for more preventive and pro-active approaches, which in the case of high uncertainty might be combined with the precautionary principle.

Summing up, it appears that the problem-solving processes we need to confront environmental issues should be built as dynamic processes of capacity-building, aiming at innovative, flexible and adjustable answers; allowing for progressive integration of information as it becomes available, and of different value judgement and logics; while involving various actors from different backgrounds and levels. Additionally, these processes should allow going beyond traditional politics and coordination across different policy areas, while providing for more democratic practices (see Table 2). We now look in more detail at why participatory practices could provide an answer to these requirements, if they can.

<table>
<thead>
<tr>
<th>Table 2</th>
<th>Environmental issue characteristics and consequent problem-solving requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental issue characteristics</td>
<td>Consequent problem-solving requirements</td>
</tr>
<tr>
<td>Complexity</td>
<td>Innovative answers</td>
</tr>
<tr>
<td>Conflicts of interests</td>
<td>Conflict resolution processes</td>
</tr>
<tr>
<td>Dynamic aspects</td>
<td>Dynamic processes</td>
</tr>
<tr>
<td>Uncertainty</td>
<td>Flexible and adjustable answers</td>
</tr>
<tr>
<td>Reducible uncertainty</td>
<td>Progressive integration of information</td>
</tr>
<tr>
<td>Irreducible uncertainty</td>
<td>Integration of different value judgements and logics</td>
</tr>
<tr>
<td>Diffused responsibilities and impacts</td>
<td>Involvement of the many different actors</td>
</tr>
<tr>
<td>No clear division between micro and macro levels</td>
<td>Involvement of actors from different levels</td>
</tr>
<tr>
<td>Long time span, immediate costs and long-term benefits</td>
<td>Involvement of concerned actors</td>
</tr>
<tr>
<td>Long time span and large space scale</td>
<td>Depart from traditional short-sighted politics while remaining democratic</td>
</tr>
<tr>
<td>Irreversibility</td>
<td>Proactive approaches</td>
</tr>
<tr>
<td>Transversality</td>
<td>Allow for coordination across policy areas and integration into multiple sectors</td>
</tr>
</tbody>
</table>
1.3. Participatory approaches as an answer?

The participation of a wide range of actors in the problem-solving process — that is, in all or some of its different phases — in principle answers several of the requirements listed in Table 2 above. Looking for extended participation is the most obvious way of involving actors in the process. It can potentially guarantee a higher degree of legitimacy to the decisions taken since a wider range of social forces will have been allowed to influence the process instead of simply being imposed 'from above'.

Participation of different actors provides a potential answer to the quest for a dynamic process. Actors can join the process as issues evolve and as the interests they represent become affected. Moreover, participation during the implementation and the control steps can allow for a direct feedback on the evolution of the situation which, combined with the flow of new information, will improve the adjustment phase, hence going in the direction of more flexible and adjustable answers.

A participatory process can also be an answer to the problem of information and knowledge, which goes hand in hand with many environmental issues. Uncertainty is prevalent — and sometimes here to stay — information is incomplete, knowledge is multiple. Science cannot pretend to control and provide all relevant information and knowledge anymore (Funtowicz and Ravetz, 1993). Including different actors in the problem-solving process, and in particular during the identification and analysis steps, is a way to allow for a better treatment of information for at least three reasons. First, even if the information exists, it is unlikely that one actor could possess the whole of this information. A participatory process allows pooling of information (Dryzek, 1990, p. 97). Second, it allows for the progressive integration of new information as it becomes available. Third, a more comprehensive understanding of the issue can be reached that includes different perspectives of a scientific, social, cultural and ethical nature. This, of course, provided the practical organisation of the communicative process allowing for the articulation of these different and irreducible standpoints.

Underlying the different types of information that different actors may bring in a participatory process are different and irreducible value judgements and logics. As pointed by Holland et al. (1996) ['Insistence on plurality of legitimate standpoints usually leads to advocacy of some form of deliberative institutions within which the weight of different reasons that appeal to incommensurable values for and against different options can be considered. However, any such model of the rational resolving of value disputes needs to recognise that a consensus may not always be found. Value disputes are also about conflicts of interests and the distribution of power: hence, modes of resolving disputes through negotiation will also be required.'] And possibilities exist here since a lack of consensus on values does not always mean a deadlock. An agreement on a course of action might still be reachable, even when values remain irreconcilable (Dryzek, 1990). As for the different logics, they can be dealt with in a properly designed participatory process through what Dryzek (1990) — and others — call 'discursive rationality', which allows for the exercise of reason about normative judgements: interests, goals, values, and problem definitions.

As we have seen, the risk of irreversibility of environmental damages calls for preventive and pro-active approaches. Addressing a problem in a preventive way, before its negative effects can be sensed, or sometimes even before there is any scientific agreement on the existence of the problem, poses a challenge to policy-makers. Inducing changes in behaviour and imposing costs today on individuals who might never directly share the benefits, either because these will only appear after their death, or because the 'only' benefit is to have avoided a contested catastrophe, is no easy task. The participation of a wide range of concerned actors in the problem-solving process, because it confers a higher legitimacy content to the decisions taken and because it allows for the taking into account of different knowledge, values, and logics, is likely to permit the design of more preventive and pro-active approaches than more traditional processes of problem-solving. Additionally, because many problems are of a totally new kind, one can imagine that an open
process is more likely to engender an innovative type of answer.

The need for coordination across policy areas and integration of environmental action into multiple sectors of society calls for the participation of representatives of the interests of these sectors in the problem-solving process — in particular, representatives of the industry. Because they possess unique knowledge about their field of activity, they cannot be excluded from any step of the process. To integrate these actors in an open participatory process, involving not just them and public authorities, but also other actors, can guarantee a higher quality of the basis of information used in the decision-making process. It also allows these other interests to play a critical role and to exert pressure in order to avoid the problems being defined too narrowly or simply dropped.

Another requirement stemming from the characteristics of environmental issues is that of going beyond traditional short-term politics. One option is to involve in the policy-design process actors who are not bound by electoral constraints. As Blowers (1997, p. 860) puts it: ‘Unconstrained by the necessity for electoral support and unconfined by territorial limitations, actors within this zone (‘of sub-politics’ or civil society) are relatively free to develop ideas and seek to influence the society at large as well as to mobilise support for particular issues and policies.’

As for the effectiveness of chosen solutions, a participatory process allowing for a wide representation of actors can in principle improve the mobilisation of individual and group energies as they gain a greater sense of shared responsibility by becoming part of the problem-solving process, and as a higher legitimacy content is attached to the process itself. This can help to render the solution more effective by ensuring some degree of commitment to the implementation, for instance, through compliance with the rules issued from the decision-process.

It appears that participatory processes may answer the specific problem-solving requirements imposed by environmental issue characteristics. At a more theoretical level, participatory processes can be shown to emerge as logical consequences of the complexity and indeterminacy dimensions of environmental issues. O’Connor (1999) shows that admitting these dimensions leads to postulating ‘an irreducible plurality of pertinent analytical perspectives’. Life in society needs to be understood as ‘a collective passage through one problem situation after another (…) — with inevitable dimensions of social learning, forced adaptation, compromise, pain, emergence of new sense and relinquishment (not always willingly) of formerly held beliefs and claims’ (ibid.). And it is because it is a collective process that it is necessarily of an argumentative nature.

But the challenge lies in the practical design and organisation of a participatory problem-solving process. Many questions arise here. For instance that of the legitimacy and representativity of the interest groups that participate to the process. The articulation with the traditional political process will have to be studied carefully. In the words of Blowers (1997, p. 866) who comments on participation of social movements: ‘Looked at in terms of urban governance, the idea that environmental or urban social movements are given space to operate in a vigorous civil society does not adequately deal with the problem of legitimating and implementing decisions. Environmental movements are not representative, nor are they accountable, and, consequently, their influence must be secured ultimately through the formal political process.’ This lack of representativity and accountability also holds true for the business actors participating in a problem-solving process. A second question stems from the selection of participants. Legitimacy can be gained provided there is some legitimacy content in the selection itself.

———

5 Dryzek (1990, p. 117) defines ‘civil society’ as follows: ‘At a first cut, civil society is composed of all social life not encompassed by the state, on the one hand, or the economy, on the other. When it comes to the prospects for democracy, it is the politicized aspects of civil society which are of interest. In this sense, civil society can be defined in functional terms as public action in response to failure in the state and/or economy. Thus civil society can be home to social problem solving and to what Jünicke calls paragovernmental activity — for example, when the parties to a dispute try to resolve it without the assistance of government institutions. Civil society can also be a source of pressure on state and economic actors, through protests, boycotts, campaigns, and so forth.’ However, others include the economic sphere in their definition of ‘civil society’.
Thirdly, the procedures for dispute resolution and power balancing need to be carefully designed if the process is to sensibly articulate different value judgements and logics in a manner that respects quality and equity criteria (which themselves need to be defined within the process).

In order to gain some insight into the potential of participatory approaches as effective environmental policy-making processes, we now turn to the presentation of a participatory process organised by the European Commission in the context of climate change policy-making.

2. An example: the European Commission Climate Policy Process

The process presented here took place in 1997, during the last phase of the international negotiations that led to the Kyoto Conference of the Parties to the UN Framework Convention on Climate Change, and in 1998 during the preparation phase for the post-Kyoto negotiations, as well as the preparation phase for the implementation of the Kyoto commitments in the European Union.

The risk of human-induced climate change is one of today’s major global environmental issues. It illustrates many of the points noted in Section 1.2. The increasing atmospheric concentrations of greenhouse gases (GHG) induce a risk of climatic changes. The complexity of the climate system results in many uncertainties in our description of the problem and in our ability to predict its likely evolution. The potential indirect effects of increased GHG concentrations are likely to include: erratic and disruptive changes to the climate and other natural systems, such as, e.g. changes in temperature, precipitation, soil moisture, and sea levels; increased variability of weather; changes in viable crop and animal husbandry regimes; large-scale vegetation changes; losses in biodiversity; additional pressure on the world freshwater system; and an increase of the transmission of vector-borne infectious diseases (IPCC, 1996).

The issue of climate change is addressed by the international community through a series of negotiations that have been on going since the adoption of the United Nations Framework Convention on Climate Change (UNFCCC) in 1992. The European Community is continuously preparing the next stage of the negotiation process, as well as acting internally to implement decisions made at the international level. An important actor within the European Union is the European Commission, internally because the Commission holds the initiative in proposing EU legislation, and internationally, because the Commission services play an important role in the coordination of Member States in the negotiation process.6

In late 1996, the Forward Studies Unit of the Commission, together with Directorate General XII (Research) and XI (Environment), set up a process aimed at reinforcing interfaces between (i) the research community; (ii) the EC Climate negotiation team and through it the EU Member States representatives; (iii) other Commission interests (the ‘inside’ stakeholders); (iv) a range of ‘outside’ stakeholders including industry, finance and commerce, employment, environment, consumer and citizen interests. The design was based on the recognition that many different factors influence the political process through which environmental targets and policy instruments are formulated to respond to climate change: use of available knowledge, influence of various economic and social interests, priority setting in the policy field, social acceptability, etc. The main objective of the EC Climate Policy Process was to furnish timely inputs responding to the negotiators’ critical information needs for the negotiations, while taking into account these different factors.

The process consisted of a series of five workshops. The first four brought together researchers and decision-makers from the Commission. This interface aimed specifically at providing policymakers with some form of direct and dynamic access to scientific and socio-economic analysis of the issue of climate change, and of the political options for action.7 The fifth workshop, which

6 The main institution through which Member States prepare for the negotiations is the so-called ‘Ad-Hoc Group on Climate’ of the European Council.
7 For a detailed account, see: O'Connor et al. (1998a) and van den Hove et al. (1998).
was convened after the Kyoto meeting, was of a different nature: it consisted in an interface between policy-makers and stakeholders. The objective was to explore the basis for social partnership between non-governmental stakeholders and European policy makers for the implementation of climate policies and the achievement of EU abatement targets. It also aimed at enlarging the information basis necessary for the EU to build its international negotiation strategy. The policy-research interfaces and wider stakeholder involvement are seen as essential elements of integrated environmental assessment for policy support as it is presently being developed in Europe (Sors et al., 1997).

2.1. Process design and procedures

Before attempting to identify the specific benefits that these interfaces brought to the decision-making process, we will examine the extent to which these workshops were participatory. We start by presenting some features of the workshops’ organisation.

The format of all workshops was similar, both for the researchers/policy-makers interface (Workshops 0–III) and for the stakeholders/policy-makers interface (Workshop IV). The three organising bodies (DGXII, DGXI and FSU) all being to a certain extent ‘internal’ stakeholders to the issue, charged a research team with the organisation of the workshops, the conduct of discussions, and subsequent reporting. The number of experts (in the first four workshops) or ‘outside’ stakeholders (in the last workshop) varied between 15 and 20, with the exception of Workshop III (see below). Other participants included the EC Climate negotiation team, and officers from the different services of the Commission who have a stake in the issue (the ‘inside’ stakeholders). Each workshop lasted 1 or 2 days.

2.1.1. Researchers/policy-makers interface

The first workshop concentrated on ‘Greenhouse Gases Abatement: The Issues and the Options’ (Workshop 0, January 1997). External participants were representatives of the European integrated assessment and modelling communities. The objective was to concentrate on the assessment of the urgency for action on climate change (the ecological–economic risks, the political imperatives) and the margins of manoeuvre for cost-effective and equitable socio-economic response within Europe. It also gave some insight into the needs of policy-makers. The Workshop was structured around a series of synthesis presentations by participating experts of different research perspectives addressing different dimensions of the climate change issue relevant to the ongoing negotiation process. These presentations were followed by extensive discussions involving experts and Commission officers. This allowed for the identification of topics to be discussed in small groups. Each small group afterward reported on key ideas and recommendations about directions to move forward. On the basis of results of Workshop 0, the design for the subsequent interfaces was developed and the topic of the next two research/policy-makers workshops was defined.

The format for subsequent workshops was as follows. The climate change negotiation team of the Commission prepared a list of key policy questions for each of the main subject areas identified during Workshop 0. On this basis, selected experts prepared synthesis papers presenting different research inputs on these sets of questions, and the pros and cons of different approaches to resolving them. During the Workshops, the information put forward was appraised by the other participating experts, together with members of the InterService Group (ISG) and the EC negotiating team, with the aim of producing a sharpened synthesis in each case. Small group discussions were also organised to focus on more specific questions. The organising team then prepared a post-workshop document (synthesis). These syntheses were used within the policy community as part of the pre-Kyoto process. The role of the research community through the various Workshops was to present different approaches
and methods for appraisal of policy options, identify the strong points and limitations of each approach and the knowledge that it can produce, and so allow policy options to be readily assessed by the policy-makers in the context of the negotiation.

Workshop I (May 1997) focused on ‘Policies and Measures’ available within the EU, including technological prospects, sectoral and macro-economic costs, and institutional variables, to move towards the emissions reduction goals established by the EU Environment Council’s 3 March 1997 decisions (namely, a negotiation position of a 15% reduction of CO_2, CH_4, and N_2O in 2010 as compared to 1990 levels). Workshop II (July 1997) focused on the assessment of international dimensions of different greenhouse gas abatement options and in particular on ‘Differentiation, Joint Implementation and Tradeable Permits’. Participants addressed the prospects for establishing common ground with negotiating partners in preparation for a strong protocol at Kyoto. The political commitments, the economic interests, and the margins for manoeuvre (technological, economic and social) differ substantially between countries. This is true within the European Union and even more so across the world. A central question concerned the workable policy options and instruments for a protocol that could address international justice as well as environmental goals.

Workshop III, ‘Sinks and Baskets’ (October 1997), focused on two specific issues that had been particularly —and to some extent, quite unexpectedly — raised during the AGBM10 meeting in Bonn in July, 1997, that is, issues relating to the use of a six-gases ‘basket’ approach to greenhouse gases emissions reduction, and issues relating to the choice of a net vs. gross approach through the inclusion of ‘sinks’ in the GHG emissions accounting framework. This 1-day work-

shop was added to the originally scheduled set of four workshops to answer an urgent and specific request of the negotiating team following the developments on the negotiation scene. Five outside experts attended the workshop, together with seven Commission officers and two facilitators.

2.1.2. Stakeholders/policy-makers interface (Workshop IV)

Finally, Workshop IV, ‘Stakeholders’ Perspectives on Climate Change Policies’, was convened in February 1998, after the Kyoto Conference. This 1-day workshop brought together about 20 invited non-governmental stakeholders, and a dozen Commission officers. As part of the preparation for the Workshop, the research team had carried out a series of formal and informal interviews with various European stakeholders on the climate change issue. The knowledge obtained during these interviews was complemented by information gained from participation in other events revolving around the Kyoto negotiations (workshops and conferences on specific subjects organised by the EU, by research institutions, or by other stakeholders groups), the Kyoto Conference itself, and through informal discussions with a wide variety of stakeholders during the whole period. The interviews allowed for the gathering of information on stakeholders’ views from a range of different and complementary sources. They were undertaken to help design the Workshop structure and to provide a background for (and a complement to) workshop discussions.

2.1.3. Participatory nature of the process

The design of this dual interface process was to answer two concerns:

1. The intrinsic characteristics of the climate change issue — which include a strong degree of uncertainty and indeterminacy — impose a response process that continuously includes dialogue with the scientific community and other actors who can bring other types of knowledge and expertise into the debate and in the design of imaginative solutions.

2. The recognition that the threat to climate stability posed by anthropogenic greenhouse gases emissions is an example of a new situa-
tion for human societies, where private actors as well as governments are being challenged to share an explicit responsibility for sustaining values of environmental quality and life support functions that are ‘external’ to their own immediate preoccupations — the environmental and economic interests of other nations and of future generations. This is a burden that no one government or company or citizen can hope to carry alone.

These interface processes were participatory (according to the definition used in this paper, see footnote 1) in the sense that they allowed different actors of society, representing different stakes and standpoints, to participate to the policy-making process by interacting in real time and in a deliberative mode.

Some of the procedural aspects of the workshops’ organisation illustrate this point:

- During each workshop, a group of people sat together for one or two days to discuss the political options for dealing with climate change. The processes involved real exchanges, and not only informative presentations from one type of participants to another (which would have been the case, for instance, in settings where researchers present results to policy-makers, or stakeholders present their position to policy-makers, or policy-makers present their decisions to stakeholders, all cases where the discussions are mostly ‘one way’).
- Discussions were building on the specific knowledge, experience and representation of each of the participants.
- Participants attended the discussions freely.
- They were asked to talk in their own name, and based on their own personal experience, both in their professional and private life. And they were asked to indicate when they were presenting the ‘official’ views of the organisation for which they worked.
- Discussions took place in an atmosphere of respect between participants with diverging viewpoints. When conflict existed, it did not prevent arguments from different sides to be exposed and — more important — listened to in a constructive dialogue.

- The size of the groups (averaging 30 people) allowed for participation of all those present and willing to the debate; small working group sessions, freely joined by the participants according to their preferences, allowed them to go even further in this direction. Reporting of the working groups in front of the whole group allowed refining the working groups’ conclusions.
- Importance was put on the quality of the communication and of the information basis on which these arguments were built. In the case of the researchers/policy-makers interface, high priority was placed on the scientific robustness of information and transparency of assumptions, expert judgements, and evaluation criteria. Where uncertainty or divergence of views were significant, the reasons for the uncertainty or dissent were sought and explained.

2.2. Decision-making requirements met by the process

We now turn to an evaluation of the EC Climate Policy Process based on our analysis of decision-making requirements emerging from the physical and social characteristics of environmental issues (Table 2). We show how some of the procedural arrangements for the workshops induced results in terms of these decision-making requirements. Then we conclude by reflecting on actual influence of the workshops as elements for European climate policy construction.

2.2.1. Innovative answers

The researchers/policy-makers interface of the first four workshops brought together researchers who are proposing different and sometimes conflicting analytical approaches to the climate change issue. They entered in a constructive deliberation process that was organised around the immediate priorities that the negotiators were facing at the time. Participating policy-makers criticised and enhanced the discussions and acted here as the direct ‘users’ of the scientific input, but also to some extent as providers of alternative knowledge and viewpoints. Such a setting, by bringing about quality discussions, lead to the emergence of an-
answers that build on a more extensive knowledge base and on a better appraisal of the underlying hypothesis and limits to the current knowledge. In this manner, the process proved to be effective for the conception of innovative answers.

In the same way, bringing together different stakeholders as was done in the stakeholders/policy-makers interface widened the perspective and sometimes led to the realisation that alternative solutions exist.

2.2.2. Conflict resolution process and integration of different value judgements

The interfaces cannot directly be defined as conflict resolution processes. They did not aim specifically at resolving conflicts between participants. However, they can be understood as elements of a wider conflict resolution dynamic. The climate change issue in Europe (and for that matter probably everywhere in the world) entails many conflicts of interests between various stakeholders (including policy-makers themselves). One way of progressing on the road to finding acceptable compromises in such a situation is to design institutions that will lead to a better understanding of the issue, and of the different positions of stakeholders. Such institutions need to account for the fact that different stakeholders will have different representations of the issue and of the ways to deal with it.11 Each of these representations is influenced by the actor’s own set of values, which is normative by definition. This implies that scientific analysis will be interpreted differently by actors with different representations. Given this, decision-making processes that allow for the clarification of different representations and interpretations constitute useful ingredients of a wider conflict resolution process. The structure of the interfaces precisely allowed for such an integration of different value judgements and logics in a constructive discursive process.

2.2.3. Actors’ involvement

For the stakeholders/policy-makers workshop, the main criteria for selection of participants were awareness of the climate change issue within the participant’s organisation, specific focus of the participant on climate policy issue in his/her professional capacity, availability, and willingness to participate in this experimental approach to stakeholders’ involvement in climate policy design. Neither exhaustivity nor representativity was looked for. Much more important was the bringing together of a group that was small enough to allow for quality deliberations, while diverse enough to allow for innovative conclusions to emerge.

Effective actors’ involvement in decision-making processes takes more than just bringing people together in the same room, it requires both a quality process of deliberation and high quality of the content of discussions. It must also result in some degree of influence of the participatory process on policy-making or on the power structure. As they happened, deliberations during workshops turned out to be well focused, building on a large and diverse basis of quality information brought in by the various participants. As for the deliberation process itself, it was very open, balanced, and overall constructive. Participants seemed to be truly interested in not just listening to, but really understanding other participants’ statements, and in further looking for constructive integration of diverse viewpoints in an effort to propose effective solutions. We did not notice systematic opposition and defensive behaviour amongst participants. A possible explanation for this could be that the mere fact of being invited to participate in a deliberative exercise, where respect of other people’s values is affirmed as a fundamental rule of the (discursive) game, and where the end objective is to instigate improved decisions, encourages individuals to adopt a constructive demeanour.

2.2.4. Dynamic processes and progressive integration of information

Agendas for the researchers/policy-makers workshop were based on a list of policy questions prepared by the negotiation team of the Commis-
sion, based on the latest evolution of the negotiations. This guaranteed a real-time process that provided timely scientific input into the political preparation of the Kyoto negotiation by the European Commission, which was an important goal of the whole exercise.12

More generally, because both types of interface were documented by subsequent synthesis reports, the process produced a flow of information towards a larger public than just the participants. This contributed to the dynamic integration of the process in the wider context of the ongoing climate change policy-making process.

2.2.5. Coordination across policy areas and integration into multiple sectors

The stakeholders/policy-makers workshop, by bringing together actors from different sectors of society, including different industrial sectors, allowed for integration of the different policy-areas into the design of solutions. In particular, innovative ideas could be translated from one sector to another. Participants were keen to hear about initiatives in other sectors of society, and to reflect on possible extensions to their own situation. Similarly, coordination is obviously more effective if dialogue amongst sectors is more frequent. Both coordination and integration require a broad view of the issue at hand, which is more likely to be attained if diverse stakeholders participate in the process.

As for the researchers/policy-makers interface, the deliberations amongst experts and researchers who study different aspects of the climate change issue and of potential solutions, as well as Commission officers from different DGs (environment, industry, agriculture, transport, etc.) also aimed at improving the coordination content of the proposed solutions. Both researchers and Commission participants had an opportunity to learn more about analyses in other sectors than the one they were concentrating on, and so to widen their representation of the issue and solutions.

2.2.6. Influence of the workshops on European climate policy construction

The question of how effective the interface processes presented here were in influencing policy-making deserves two comments. First, the workshops did not bring together top decision-makers such as, e.g. environment ministers or CEOs. However, by directly involving the EC climate negotiation team, officers from other concerned EC departments, actors and informed stakeholders or scientists from relevant organisations, they were contributory to the actual policy process. For instance, language used in workshop reports was subsequently ‘recycled’ in official Commission Communications, albeit with no explicit reference. Second, by modifying participants’ representations and their interrelations, the process does indirectly influence subsequent power relations and policy-making, and so contributes to the decision-making process.13

The main objective of the whole exercise, which was to furnish to the negotiation team timely inputs emerging from different perspectives, has been satisfactorily achieved, as indicated by positive reactions by members of the negotiation team on the usefulness of the process. A major weakness here lies with the fact that the series was a one-shot exercise. Given the ongoing nature of the international climate negotiations, and of internal European climate policy construction, it would have been appropriate to design a follow-up to this process, which could have turned these interfaces into dynamic and more permanent elements of policy construction.

12 At one point in the first workshop, ideas were put forward to improve this dynamic aspect by establishing some sort of hotline between the research community and the negotiators. This idea was not pursued further, but based on our experience of the negotiation process, it seems that there is room for improvement of this aspect. The European Union in general would benefit from a more developed real-time scientific information system that could be called upon during political talks. Now, again, the design of such an information system is important since it needs to take into account the plurality of scientific analysis and results, and to provide a way to efficiently make use of such diverse, and sometimes conflicting, information. The workshops may provide some ideas on how to organise this.

13 See, e.g. Poncelet (1998) for an anthropological discussion of this influence.
3. Conclusion

Participatory approaches are institutional settings which bring together various actors at some stage of the environmental policy-making process. They include negotiations, co-operative processes, and multi-stakeholders approaches of different types, at different levels, and of different degree of formality. In this paper, we have looked at the policy relevance of participatory approaches when environmental issues are addressed. From our analysis, it seems that participatory approaches do constitute effective tools of governance in the context of sustainable development objectives. They can potentially answer the problem-solving requirements emerging from the physical and social characteristics of environmental issues. Participatory processes can be understood as both a ‘social technology’ and a means of achieving efficient policy implementation. As such they constitute interesting options at the methodological level, for sustainable development analysis, and at the practical level, for the design of effective alternative decision-making processes. But this effectiveness needs to be assessed. That is, methodologies for the evaluation of participatory processes need to be developed in parallel with process design. Ecological economics certainly provides an interesting framework for further research in this direction.

The case study presented here illustrates two possible participatory settings for environmental policy-making: researchers/policy-makers and stakeholders/policy-makers interfaces. We have highlighted how some of the problem-solving requirements for environmental policy-making were met in the case study. Climate change is a highly complex issue, and climate policy-making will require a whole array of different participatory settings aimed at answering different requirements and improving different aspects of the decision-making process. The challenges lie in the design of these participatory processes, and in the articulation of participatory processes of different natures in sustainable development governance.

Acknowledgements

The workshops presented in the case study have been organised by the Directorate General for Science, Research and Development (RTD Programme ‘Environment and Climate’, area ‘Human Dimensions of Environmental Change’) in co-operation with the Directorate General for Environment (‘Climate Change Unit’) and with the Forward Studies Unit of the European Commission. A research team from the University of Versailles — Martin O’Connor, Sylvie Faucheux and the author — assisted in the organisation and reporting of the workshops. The views expressed in this article are personal and do not in any way engage the Commission of the European Communities. I am grateful to Sylvie Faucheux, Martin O’Connor and to three referees for their very helpful comments. Of course, any error and the views put forward are the responsibility of the author alone. The author was a European Commission DGXII Marie-Curie Research Training Grant holder in the Environment and Climate Programme during the years 1997–1998 when this research work was carried out.

References

European Commission, 1997. Towards Sustainability: The European Commission’s progress report and action plan on

\[14\] The expression is from R. Sapsford.
\[15\] For a recent undertaking in this direction, see Beierle (1998).
the fifth programme of policy and action in relation to the environment and sustainable development. Office for Official Publications of the European Communities, Luxembourg.


