PARTICIPATORY ENVIRONMENTAL

POLICY PROCESSES:

EXPERIENCES FROM NORTH AND SOUTH

IDS WORKING PAPER 113

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SUMMARY

There is a growing recognition across the world that citizens should play a role in informing and shaping environmental policy. But how should this be done? This paper explores one route, where opportunities 'from above' are created, often, but not exclusively so, by the state, often through local government policy and planning processes. A set of approaches - known collectively as Deliberative Inclusionary Processes (DIPs) - are explored in different settings through 35 case studies from both the north and south. These experiments in more inclusive, participatory forms of policy deliberation have been prompted by a number of factors. These include wider political shifts towards new forms of citizenship and democracy; concerns about policy effectiveness and implementation success; the emerging recognition of the complexity and uncertainty inherent in environmental problems; growing levels of distrust in policy processes and expert institutions; and the increasingly recognised importance of accepting that values, ethics and issues of justice are key to environmental policy problems. Through an examination of lessons emerging from the case studies both practical issues, such as time and resource constraints, are considered alongside methodological questions emerging from asking: who convenes the process, who defines the questions, and how are multiple forms of expertise accommodated? The paper shows how power relations and institutional contexts critically affect the outcomes of DIPs processes. Without linking such processes to broader processes of policy change - including connections to conventional forms of democratic representation - DIPs may simply be one-off events, and so their considerable potentials for transforming environmental policy processes will go unrealised.

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PREFACE

As part of the on-going work by the IDS Environment Group on policy processes, one key question recurrently arises: how to encourage a more inclusive, participatory approach to policy-making, which effectively responds to the plurality of perspectives on environmental issues?

An earlier review of the policy process literature (Keeley and Scoones 1999) concluded that, given the growing range of actors concerned with environmental issues, the increasingly contested nature of environmental problems, and the importance of building trust around decision processes, a more participatory approach to environmental policy processes is often required.

But what sort of participation, and for whom? Despite there being many claims made about the importance of participation in policy-making, there have been few attempts to assess actual experiences. With support from the Rockefeller Foundation, we set out to try and review the range of approaches for encouraging more inclusive forms of deliberation around environmental policy processes, drawing on experiences from both 'north' and 'south'. The focus of the paper is on those approaches where space for citizen participation has been created 'from above', usually, but not exclusively so, by government agencies.

As the paper explains, despite the widespread rhetoric of participation, there are remarkably few well-documented cases that systematically encourage participation in policy-making. It was necessary therefore to draw broader lessons from different aspects of the 35 case studies reviewed. Some of the key themes are summarised below:

- While there has been an important emphasis on the development of participatory methods and tools, in
 both northern and southern settings, there has been much less reflection on how these are located
 within broader policy processes, and how those involved in participatory events are linked to wider
 policy networks and processes of policy change.
- Who is included and who is excluded in participatory activities often remains obscure. While different
 approaches to 'representation' are used in the cases examined, the question of whose voice is heard is
 less often discussed. Broader questions of who convenes the process and who frames the questions are
 therefore key.
- Processes of deliberation are inevitably bound up with power relations. Ideal forms of communication
 are rarely realised, especially if issues are contested and the stakes are high. Much of the discussion of
 participatory policy processes focuses on the achievement of consensus, while issues of how to deal with
 dissent, dispute and conflict are less fully examined.

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CONTENTS

PRE	FACE		3		
CON	ITENTS		5		
1		INTRODUCTION			
2		RACTERISTICS OF DELIBERATIVE INCLUSIONARY			
	PRO	CESSES	8		
3	ACC	OUNTING FOR THE RECENT INTEREST IN			
	DIPS	FOR ENVIRONMENTAL POLICY-MAKING	11		
	3.1.	Political shifts	12		
	3.2.	Policy effectiveness	13		
	3.3.	Complexity and uncertainty	15		
	3.4	Trust	16		
	3.5	Social justice and empowerment	17		
4	PAR	TICIPATORY ENVIRONMENTAL POLICY PROCESSES			
	– EX	AMINING THE EXPERIENCE	18		
	4.1	Inclusion and deliberation: how do dips work?	27		
	4.2	The role of dips in the broader policy-making process	37		
5	CON	ICLUSION	48		
APP	ENDIX	A			
	A sel	ection of methods that either have been or could be used in dips			
for environmental policy-making.					
REF	ERENC	ES	56		

1 INTRODUCTION

The perceptions and preferences of ordinary citizens, particularly those from marginalised groups, are rarely prominent in the process of environmental policy-making. The construction of environmental policy is, to a large extent, dominated by the decisions of elite groups of policy-makers. There is, however, a growing recognition in both the industrialised countries of the 'north' and the developing countries of the 'south', that non-elites can and should play an increasing role in informing and shaping environmental policy. This paper will critically examine one of the relatively new routes through which citizens across the world can attempt to influence environmental policy-making.

Gaventa and Robinson (1999) argue that non-elite citizens can shape policies through four alternative routes. One is through covert and subtle forms of resistance. Scott (1990) argues that non-elite action is commonly expressed in the realm of 'infrapolitics' by means of subversive 'hidden transcripts', where the powerless voice their discontent, through rumour, gossip, folktales and jokes. These transcripts can accumulate over time to provide a conditioning influence on policy. A second route is through community based action groups, trade unions, non-governmental organisations (NGOs) or social movements. These groups and organisations may influence environmental policy through direct means, such as advocacy, protest and, if there is a judiciary which is considered to be legitimate and impartial, by legal challenge. Such groups may also influence policy indirectly, by strengthening the capacity of citizens to take action in the future through awareness building, organisational strengthening or resource mobilisation². A third route is by political means, through formal representatives and elections or through more revolutionary and confrontational action (Moore and Putzel 1999; Rippe and Schaber 1999).

Such routes of action 'from below' can be influenced by actions, opportunities or political space created 'from above'. A final route for non-elite citizens to influence environmental policy can therefore be opened by policy-making institutions themselves as they attempt to establish greater participation in the formulation of their policies. This is a relatively new route for most non-elite citizens and environment-influencing organisations and is therefore an area that has received little critical attention. The effectiveness and significance of this route is the focus of this paper.

An increasing number of attempts have been made to create appropriate openings and procedures in policy-making institutions. They aim to allow greater deliberation of policy and practice through the inclusion of a variety of stakeholders and 'publics' in consultation and decision-making. In the 1990s, such deliberative and inclusionary processes (DIPs) have been increasingly applied to the formulation of environmental policy in countries of both the north and south. Interest in DIPs has grown dramatically, especially for local environmental planning such as Local Agenda 21, but also for the development of community and local economic strategies (Healey 1998). This has been largely because of state and citizen disillusionment with the current policy-making process. In the north, concern has particularly focused on

For the purposes of this paper, the 'south' is considered be the countries within Asia, Africa and Latin America. The 'north' is assumed to consist of the rest of the world.

The nature of civil society's influence on environmental policy is discussed by Haynes (1999), Jamison (1996), Press (1994) and Shackley and Darier (1997).

local government planning and the inadequacy of public meetings for effective public consultation. In the south, the emphasis has been on improving the implementation of development policies while providing mechanisms for community empowerment, by using approaches such as participatory rural appraisal (PRA), or by including non-elite perceptions in policy formation, through activities such as participatory poverty assessments (PPAs). An increasing number of people across the world see DIPs as being able to overcome the dominance of inappropriate environmental policy-making conducted by elites.

Although a strong case for participatory policy-making has been made, the actual experience of DIPs in environmental policy-making has been subject to little critical analysis. Previous empirical studies have tended to focus on specific cases, countries or socio-economic regions, thereby ignoring the differences and similarities of these processes between developed and developing countries. This paper will attempt to fill the gap in this literature by providing a broad review of DIPs in environmental policy-making. It will examine the generic characteristics of these processes (Section 2) and explore how DIPs have emerged in northern and southern countries (Section 3). The emphasis of the paper will be a critical examination of a range of cases from both socio-economic regions (Section 4). Both the internal functioning of DIPs (Section 4.1) and the role of DIPs within the broader environmental policy-making process (Section 4.2) will be addressed. Section 5 will provide some conclusions.

2 CHARACTERISTICS OF DELIBERATIVE INCLUSIONARY PROCESSES

To understand DIPs, and to be able to critique them later, it is necessary to establish the meaning of deliberation and inclusion in policy-making and the claims of proponents. Deliberation is defined by the Oxford English Dictionary as 'careful consideration' or 'the discussion of reasons for and against' (OED 1994). Deliberation is therefore a common, if not inherent, component of all decision-making. However, Bloomfield et al. (1998: 3–7), suggest a series of characteristics that are frequently associated with deliberative decision-making as a potentially policy influencing process. First, social interaction occurs. This normally incorporates face-to-face meetings between those involved, although the development of information and communication technology, particularly email, internet and interactive television, is increasingly overcoming the need for this (London 1995)³. Second, there is a dependence on language through discussion and debate. This is usually in the form of verbal constructions rather than written text⁴. Third, a deliberative process assumes that, at least initially, there are different positions held by the participants and that these views should be respected. Fourth, such processes are designed to develop a reflective capacity that enables participants to evaluate and re-evaluate their positions. This assumes that deliberation can and should lead to the transformation of the values and preferences held by participants⁵. Fifth, the form of negotiation is often seen as containing value over and above the 'quality' of the decisions that emerge. Participants share a

However, see London (1995: 3) for a discussion of some of the limitations of 'teledemocracy' (literally 'democracy at a distance').

However, written text is more common in teledemocracy.

This is in contrast to liberal theory that suggests opinions are given and political authorities only need to aggregate individual preferences (Smith and Wales 1999).

commitment to the resolution of problems through public reasoning and dialogue aimed at mutual understanding, even if consensus is not being sought (London 1995). Each actor aims for a win-win situation rather than viewing discussion outcomes in zero-sum terms (Pellow 1999). Finally, there is the recognition that, while the goal is usually to reach decisions, or at least positions upon which decisions can subsequently be taken, an unhurried, reflective and reasonably open-ended discussion is required (Button and Mattson 1999).

The diverse sources and forms of DIPs make it difficult to identify a single theoretical basis for deliberative decision-making processes. Nevertheless, most DIPs appear to involve, at least implicitly, Habermas's ideas of 'communicative rationality', with the explicit use of these ideas being prevalent in the north. In communicative rationality the notion of reason as pure logic and scientific empiricism is expanded to encompass reason formed through historically situated inter-subjective mutual understanding (Habermas 1987). Knowledge claims are validated through discursively establishing principles of validity, rather than through an automatic appeal to logic or science. Truths are seen to emerge not from the clash of preestablished interests and preferences but from reasoned discussion about issues involving the common good (London 1995). Reason is retained as a legitimate guiding principle due to the importance of argumentation and debate when collectively 'acting in the world' (Healey 1992). Habermas (1987) believes that adherence to procedural criteria rather than scientific rationality will guide decisions towards efficacy, justice and the public interest. Such 'ideal deliberative procedures' involve 'free debate and dispute in which the only legitimate force is a good argument' (Dryzek 1993: 229). Communicative rationality is achieved to the extent that interactions are egalitarian, uncoerced, competent and free from delusion, deception, power and strategy (ibid.). Each participant agrees to concur with positions that they cannot refute (Tewdwr-Jones and Allmendinger 1998). Such deliberation is supposed to improve reasoning and, by implication, is more likely to engender consensus. When deliberation follows an 'ideal' deliberative procedure, it is seen to 'deliver the most 'correct' political judgement possible' (Bloomfield et al. 1998:5).

Advocates of DIPs in both the north and the south argue that for deliberation to be effective it needs to be incorporated into processes that are inclusionary. In order to be adequately deliberative DIPs must provide for meaningful participation by individuals and groups from a broad and diverse range of perspectives (Rossi 1997). Inclusion is the action of involving others and an inclusionary decision-making process refers to the effective involvement of multiple stakeholders, and usually emphasises the participation of previously excluded publics and their intermediaries. Although there are no precise criteria upon which to determine who should participate, an 'ideal' inclusionary procedure can be seen to follow the general observation of Bloomfield *et al.* (1998: 11) that:

'all whose interests will be affected ought to have the opportunity to take part, and for all citizens to feel that their interests are being properly represented even if they do not chose to become involved themselves.'

This phrase is from Bloomfield et al. (1998:5) following Habermas' concept of an 'ideal speech situation'.

However, the notion of inclusion can also go beyond who is involved, to a concern with the means by which participants take part, the agendas they are permitted to discuss and the arrangements made for those who cannot be present (Bloomfield *et al.* 1998).

DIPs in both the north and the south broadly share the above characteristics. However, they vary in the objectives they have been given and the procedural mechanisms used within them. While the nature and prevalence of each type will be examined later in this paper, it is useful at this point to outline briefly the range of these variations. With regard to objectives, Button and Mattson (1999) describe four expectations of democratic deliberation that were expressed by participants in a study of DIPs in the USA (Box 1). Although these conceptions of DIPs are not mutually exclusive, and can often be found working in combination or succession, they reflect discrete expectations of DIPs and can be used to distinguish between the different objectives that DIPs have been given. In addition, drawing on Zazueta (1995), who describes DIPs that have taken place in environmental policy-making in Latin America, it is possible to subdivide the DIPs with an instrumental objective into four further categories (Box 2). These forms are also often utilised in combination or succession within the same case.

In both the north and the south, the use of DIPs for environmental policy-making has involved an array of procedural mechanisms, techniques and methods. They include area/neighbourhood forums, citizens' juries, citizen's panels, committees, consensus conferences, deliberative polling, focus groups, issue forums, multi-criteria mapping, public meetings, rapid and participatory rural appraisal (RRA and PRA), service user forums, visioning exercises, working groups and workshops (IPPR 1999; NEF 1998). These are described in Appendix A. It is worth noting that these modes and methods can differ substantially in detail and have been applied to a wide range of issues, not necessarily only to those related to environmental policy (Kass 1999). However, they all, to varying degrees, attempt to adopt the criteria of deliberation and inclusion discussed above. Typical principles applied in their use include the incorporation of the widest possible range of interests; focusing on the future and on common ground; working in small groups; urging full attendance and participation; and seeking public commitments to action (Selman and Parker 1997). Nevertheless, particular mechanisms are often associated with DIPs that have particular objectives. The nature of such relationships will be discussed in Section 4.

A final characteristic, that applies to the use of DIPs in environmental policy-making in countries of both the north and south, is that DIPs have been largely initiated and used by local governments, and the state has, so far, nearly always been a central player. To use Healey's (1997: 286) distinction, DIPs are often an element of the 'soft infrastructure' – the institutional capacity building and mutual learning where social collaboration and invention occurs – that operates alongside, and has the potential to transform, the 'hard infrastructure' of the established government institutions (e.g. Parliament), social institutions (e.g. education systems) and regulatory institutions (e.g. the law).

This section has introduced deliberative and inclusionary processes and has shown that, despite occasional differences in objectives and procedural mechanisms, they rest on comparable underlying assumptions and make similar claims. Before a detailed comparison takes place, it is necessary to establish how and why DIPs in environmental policy-making have recently emerged in both the north and the south.

Box 1: Conceptions of democratic deliberation (adapted from Button and Mattson 1999)

- Educative: This perspective views civic deliberation as a means of encouraging political learning about an issue or problem. The objectives range from simply providing individuals with more information and knowledge, to the greater expectation that as a result of such deliberation citizens can make collective political judgements and participate in decision-making in the future.
- Consensual: This approach stresses procedures by which participants can come to a common agreement on an issue, values or the direction of a future course of action. There is a desire to find 'common ground' through the expression of different points of view. Aware that complete consensus is unlikely, organisers following this orientation often ask citizens to use the 'I can live with it' rule to distinguish among proposals they can accept as reasonably close to their views and those they cannot accept.
- **Instrumental**: This approach perceives direct political or legislative results as the purpose and end of democratic deliberation. Procedures are often organised around the communication of established political interests. Deliberative sessions can be judged by the standards of effectiveness, efficiency and influence. Instrumental results can include the development, improvement or blocking of a proposal (Chess and Purcell, 1999).
- Conflictual: This perspective emphasises giving the widest possible space to the expression and development of individual points of view without being constrained by other demands on public talk. This conception stresses conflict and difference over resolution and agreement. The results of such an orientation to deliberation may be educative and they may also serve as the basis for future decision-making. But the primary focus is on unrestricted discourse.

Box 2: Forms of DIPs used for instrumental objectives in environmental policy-making (adapted from Zazueta 1995)

- **Information production:** The production, through inclusive deliberation, of information/ evidence needed for participants/ stakeholders to examine the issues more fully.
- Consultation: Policymakers bring stakeholders into the discussion about policy options, encouraging them to express
 their needs and views and to share their experiences. From the stakeholders standpoint, consultation processes are best
 seen as an opportunity for expression. From the standpoint of policy-makers, they present the chance to listen. Through
 consultation, policy-makers can also figure out who is likely to support or oppose an initiative and how to increase support.
- Monitoring and oversight: Task forces and standing committees can play an important role in oversight and in
 establishing broad directions for specific initiatives, while having no responsibilities for how actions are carried out. Such
 committees are legitimating mechanisms intended to increase support and reduce opposition among stakeholders, as well
 as to ensure that wide-ranging information and perspectives get incorporated into decision-making and implementation.
- Decision making and implementation: Delegation of planning and implementation to the non-state sector (community based organisations (CBOs) and non-governmental organisations (NGOs)). Citizen's groups define problems, formulate solutions and action plans and help implement activities

3 ACCOUNTING FOR THE RECENT INTEREST IN DIPS FOR ENVIRONMENTAL POLICY-MAKING

The support for and use of DIPs in environmental policy-making has grown dramatically in the last decade. In 1992, the internationally agreed 'Agenda 21' for sustainable development was generated by the United Nations Earth Summit in Rio. This emphasised a need for public involvement in the design and implementation of many forms of environmental policy (Eden 1996). In particular, the 'Local Agenda 21' (LA21) supported the development of 'fresh and innovative methods of working with and for the community' (Freeman *et al.* 1996: 65) ⁷. In 1997 at least 1,812 local governments from 64 countries in the

Chapter 28 of Agenda 21 specified that, by 1996, most local authorities should produce a 'local Agenda 21' through consultation and consensus with local people and institutions.

north and south were involved in LA21 planning processes' (ICLEI 1997) and many of these have incorporated practices with the characteristics of DIPs (Selman and Parker 1997)⁸. The expansion of participatory processes through LA21 is, however, just one example of increasing deliberation and inclusion in environmental policy-making. In the UK, for example, the use of DIPs by local authorities has grown dramatically in a wide range of areas⁹.

There are a number of interrelated contemporary social and political factors that have contributed, both directly and indirectly, to this recent interest. The following discussion will briefly summarise, albeit in a highly generalised fashion, the factors that have been key in prompting and promoting the growing perceived validity and acceptance of DIPs. Although the ways that these contextual factors have emerged and influenced DIPs have often varied between countries of the north and the south similar trends have usually been involved.

3.1. Political shifts

Changing emphases in the political arena have affected the desirability and feasibility of including of citizens in debates about environmental policy. One such shift has been a growing dissatisfaction with the existing political structures for handling environmental policy-making. In many countries the most obvious mechanism for involving citizens is that of representative democracy. However, even in countries where representative democracy is supposed to be functioning effectively, it has been heavily criticised for its ability to protect citizens' environmental interests. The inability of elected representatives to capture the diverse social and economic interests of their constituents, the lack of a convenient coincidence between alternative policy options and traditional divides between political parties and the fact that environmental stewardship does not fit into electoral time scales have meant that citizens' environmental concerns have not been adequately taken into account in local and national government policy-making (Selman and Parker 1997). In addition, marginalised groups often do not participate effectively in such representative democracy. As Moore and Putzel (1999) argue, in many 'democracies', particularly in the south, the poor are often badly organised and ill-served by the organisations that mobilise their votes and claim to represent their interests. Some local governments, particularly in the north, have attempted public consultation on environmental policy over many decades. However, the traditional methods used, frequently in the form of public meetings, have often provided inadequate opportunities for genuine democratic involvement (Chess and Purcell 1999). Many countries, particularly in the north, are beginning to see DIPs as a way to democratise environmental policy-making by moving beyond representative democracy and traditional forms of consultation to give the historically excluded a voice.

However, as well as a growing recognition of the inadequacy of the current system, other political shifts have actively prompted the adoption of more participatory approaches in policy-making. Bloomfield et al.

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However, despite this, it should be recognised that the majority of LA21 processes have utilised traditional participatory mechanisms such as public meetings and consultation documents rather than DIPs (Evans 1999).

For example, in the case of citizen's juries, before 1992 less than 20 responding authorities claimed to use them while in 1997 this rose to 110 (DETR 1998 in Bloomfield 1998:2).

(1998) suggest that the benefits of a particular form of 'public participation' began to be appreciated in many countries when, in the 1980s, changes in governance strategies stemming from a neoliberal agenda resulted in the state moving from a position of economic and social control characterised as 'rowing' to one of 'steering'. In both the north and the south, liberalisation led to privatisation and 'cost sharing' in government programmes and the privatisation of utilities was seen by some to increase public engagement as former state services attempted to become more sensitive to the demands and opinions of citizens as customers. However, the form of participation that emerged has been widely criticised as inequitable and often being little more than a cost-cutting exercise together with an abdication of the state's responsibilities.

Across the world, the political moves causing the retreat of the state have also resulted in the expansion of civil society. In the south this was particularly noticeable as grassroots organisations and NGOs were encouraged to scale up operations to take on responsibilities in service delivery which until then had been in the hands of the state (Zazueta 1995). Civil society organisations, in the north and the south, have been largely responsible for the explosion of interest in a wide range of participatory methodologies (Chambers 1997; NEF 1998). In addition, as these organisations have evolved, they have begun to take on a greater advocacy and collaborative role and to demand that citizens' voices be heard during the formulation of government regulations and policies.

Recent political changes have also contributed to the emergence of participatory environmental policy making. In the north, from the mid-1990s, there has been growing state support for forms of public participation. In particular, as the political goals of a number of northern governments moved away from unbridled neoliberalism, issues of social justice and exclusion/inclusion have received greater attention. In the UK this has become more explicit after the election of a Labour Government in 1997 and can be found in the debates surrounding the 'The Third Way' concept (Giddens 1998). This appears to represent a move towards a consensus within the ideologies of many dominant political parties in the west as they attempt to develop a new type of politics in the light of greater cultural pluralism and changes in ethical beliefs and values. Central to this attempt is a search for processes that lead to fresh patterns of deliberative interaction between state and citizen (Grove-White 1998).

In the south the relevant political shifts have been moves towards greater decentralisation and democratisation. Tamang (1994) argues that, as more governments in developing countries are elected, more have had to relate their policies to the needs, hopes and aspirations of the citizens they serve to stay in power. He suggests that this has begun to produce a 'new political climate that requires policy-making organisations to be accountable to the public they serve' and that this climate has 'persuaded these bodies to break out from their insularity' and find new ways of understanding and communicating with the population (ibid.: 6).

3.2. Policy effectiveness

The growing concern regarding the effectiveness of environmental policies has been another key contextual element. In both the north and the south, a wide variety of environmental policies have received increasing criticism. Proponents argue that DIPs have the potential to improve the quality of decision-making, lead to

'better' policy and increase the likelihood that policy implementation will be more legitimate, effective, efficient and sustainable.

Inclusive deliberation has been described as 'the only analytically rigorous way of framing analysis' because it involves getting information and perceptions from as many different sources as possible and considering this information in an open, fair and equal way (ESRC 1998: 13). DIPs therefore have the potential to improve the knowledge base for the design of environmental policy. The inclusion of multiple stakeholders brings into decision-making more information and a wider range of experiences - both of which can contribute to the elaboration of more realistic policies (Pelletier et al. 1999; Zazueta 1995). Participatory research can often unearth surprises by producing information that is counterintuitive (Holland 1998) and local or indigenous environmental knowledge may be critical to the successful management of particular ecological resources (Schroeder 1999). Relevant and sustainable policy-making also requires the voices of the affected population to be heard because the priorities and understandings of policy-makers may bear little resemblance to those of the 'beneficiaries'. In environmental debates, understandings of the environment and values placed on different types of 'nature' are socially constructed, often in markedly different ways by different actors, and so are subject to significant contestation (Keeley and Scoones 1999). Inclusive deliberation can challenge preconceptions, helping policy-makers to move away from normative or stylised ways of thinking (Holland 1998). In particular, if ways to involve marginal populations in policymaking are found, it is argued that projects and programmes will better respond to their needs (Zazueta 1995).

However, as well as providing additional information from a wide range of perspectives, DIPs can also improve policy effectiveness by reducing public opposition. DIPs can increase the likelihood of compliance and support from the affected population by building their concerns into policy decisions and developing a consensus about the way forward (Pelletier 1999). As environmental decision-making is essentially about trade-offs between and among uses and users, deliberative and inclusionary processes have the potential to strengthen the perceived legitimacy of policy decisions and make policy implementation easier (Ballantyne 1995; Burgess 1999).

Attempts to enhance such policy legitimacy have been particularly common use of DIPs in the north. This is partly because of the increasing prevalence of certain intractable policy problems, such as the Nimby syndrome¹⁰. Fischer (1993) suggests that such 'wicked' environmental problems will never be adequately solved by experts alone and citizen participation is therefore required in policy-making.

Although enhancing policy legitimacy is also an issue in southern countries, the use of DIPs has often stemmed from a desire to improve the design and implementation of environmental policies due to past failures and a lack of resources. 'Development' is replete with examples where centrally designed and implemented policies have failed to match the needs and priorities of the 'intended beneficiaries' because of the lack of involvement from local people (Gaventa and Robinson 1999). In addition, the debt crisis,

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The Nimby ('not-in-my-back-yard') syndrome refers to a situation in which people recognise the need for a particular type of development (e.g. landfills, power plants, hazardous waste facilities) but object to having it located anywhere near them (Fischer 1993: 173).

subsequent programmes of structural adjustment and growing market liberalisation led governments in the south to cut social spending substantially. Public participation can be seen as an effective and efficient way to operate with limited resources. This can lead to increased participation in policy implementation but can also encourage participatory policy-making. For example, the reformulation of governments' role as central service providers produced a 'new generation' of state environment agencies in countries of the south. These had planning and co-ordination capacities but were not necessarily responsible for implementation. Zazueta (1995) argues that a lack of resources forced some of these bodies to view consensus and participatory processes as important tools for policy formulation.

The reliance of government agencies and civil society organisations in the south on external funding for their activities makes the role of the multilateral, bilateral agencies and international NGOs particularly influential. As the donor community has internationally accepted the concept of 'participation' during the last decade, fiscally lean national agencies have frequently had to obtain resources from international sources that present the use of participatory processes as a condition of funding. The current concerns of donors for good governance and the strengthening of civil society have also been an important factor increasing interest in participatory policy-making (Gaventa and Robinson 1999).

3.3. Complexity and uncertainty

In countries of the north and south, DIPs have been promoted because of their potential ability to deal with complex and contested environmental problems, which frequently cross geographical and sectoral borders. They have also been seen to deal with the many environmental issues which face a high level of uncertainty. Uncertainty can be identified as an important difference between environmental and other policy issues. Although all policy-making involves decisions without being able to predict the effects of different measures, uncertainties in the area of the environment are much more fundamental. Environmental effects are usually complex, long-term and uncertain. Biophysical processes, such as climate change or desertification, are often characterised by non-equilibrium dynamics and high levels of instability. However, where conditions and outcomes are 'uncertain' (where we don't know the probabilities of possible outcomes) or where 'ignorance' is prevalent (where we don't know what we don't know), the traditional approaches of risk management and cost benefit analysis become problematic. These approaches are based on quantified and verifiable 'facts' and are unable to produce appropriate or sufficient information for prediction, management and control (Wynne 1992). Many observers and analysts conclude that methods of eliciting citizens' values and establishing forums for their debate and arbitration are essential to bridge this gap (Kass 1999). Uncertainty is seen to remove the justification for 'expert' rationality to decide on environmental problems alone. Perceptions of both the problem and the solution are value laden and differ greatly among different sections of the population. The traditional 'expert institutions' are seen as no better equipped or mandated to decide upon profound general questions of values and interests than any other assemblages of citizens (Stirling and Mayer 1999). Conditions where there is uncertainty and ignorance can therefore promote the value of generating new knowledge to inform policy through the interaction of diverse stakeholders. DIPs are also seen to overcome the complexity of environmental processes when the search for general laws in environmental

science is confronted by diverse spatially specific physical and social conditions. It has been argued that to prevent unsatisfactory policies emerging from such environmental generalisations it is necessary to develop:

'new, inclusive and participatory approaches for linking environmental knowledge and policy processes which more adequately respond to local realities' (IDS 1998a: 3).

In the presence of profound uncertainties and 'ignorance' such approaches will also remain imperfect. However, the inclusion of local residents, lay citizens and divergent interest groups has been increasingly recognised to confer greater analytical breadth and robustness as well as enhanced legitimacy.

3.4 Trust

A related but distinctive element is the growing public mistrust, cynicism and a perception of declining legitimacy regarding politicians, state institutions and scientific expertise (Kass 1999; Lowndes *et al.* 1998; Rippe and Schaber 1999). In developing countries there is often a deep public distrust in the willingness and/or ability of the state to achieve positive improvements to the environment and the quality of life. This is largely because there have been years of inadequate public service provision, inappropriate development programmes, corruption and poverty. Some governments have, as a result, attempted to overcome this low public confidence, and enhance the effectiveness and legitimacy of environmental policies, by incorporating public participation into policy formation and implementation (Schroeder 1999).

In northern countries, Giddens (1990) argues that public trust in the state has been eroded by the lack of state power over global events and processes that often have environmental implications. However, this lack of trust is also associated with the growing link between the state and scientific expertise in environmental policy-making, and the public understanding of science. Science has become increasingly drawn into policy-making by experts making decisions about environmental realities to provide policy-makers with policy options. However, not only has the involvement of scientific expertise tended to remove decisions from democratic politics and create a form of 'subpolitics' (Beck 1992) but, as highlighted by the controversies in the UK over GMOs and BSE, public confidence in such expertise has declined (GECP 1999).

Irwin (1995) argues that people in industrialised and post-industrialised countries no longer trust science because science no longer represents certain knowledge. People are confronted with a wide range of views from experts and counter experts in serious scientific controversies (Hajer 1995). This directly contradicts the positivist view of knowledge where any group of experts should arrive at the same conclusions. Also, the understanding that scientific knowledge is socially constructed means that scientific pronouncements in policy statements may result from no more than the effective use of knowledge networks (Keeley and Scoones 1999). As scientific knowledge informing policy is seen as increasingly politicised it becomes more open to criticism (Eden 1996).

In addition, science is increasingly questioned because of the perceived emergence of a 'risk society'. This recognises that science does not just produce benign benefits but that processes of scientific discovery

and technological change can have side effects that lead to negative physical and ecological impacts (Beck 1992). Citizens consequently feel themselves 'at risk' from social and technological developments (Selman and Parker 1997) and sceptical of scientific solutions when 'experts' have contributed to creating an environmental crisis in the first place (Tewdwr-Jones and Thomas 1998). Given past experiences and the extensive influence of industry and scientific experts, it seems both reasonable and rational to many people to harbour doubts about formal science and the ability of public policy to safeguard the interests of most citizens (GECP 1999; Kass 1999; Rippe and Schaber 1999).

In both the north and the south, solutions to overcome low public confidence in, and limitations of, state institutions and scientific expertise have often emphasised a more deliberative and inclusionary form of policy-making. This does not deny the value of formal science but emphasises the importance of alternative perspectives as alternative ways of framing issues. There has, therefore, been a move away from simply explaining issues to what are seen as an essentially ignorant or at least disinterested publics. The challenge is increasingly that of bringing competing expertises together in a constructive way. Advocates argue that DIPs enable multiple perspectives into debates thereby generating better understandings of the uncertainties of science-policy questions and that the use of DIPs will build public trust in science and the state by inspiring confidence and perceptions of legitimacy in the policy-making process (Rossi 1997).

3.5 Social justice and empowerment

DIPs can provide greater fairness, equality and social justice in environmental policy-making. Their inclusionary nature and deliberative procedure has been seen to provide a space for those with no or a weak voice to influence environmental policy and to fulfil the 'right' of the public to participate in decisions about the environment (Fischer 1993). Zazueta (1995) argues that, even though marginal populations often benefit the least from economic growth, they frequently bear a disproportionately high share of the costs of environmental degradation and therefore should be entitled to participate in policies relating to the environment. McLain and Jones (1997) suggest that such participatory justice should particularly apply to people's local environment. They argue that traditional customs and cultures should take precedence over new resource use configurations and that local people often have a strong dedication to the wellbeing of their local ecology, an intimate knowledge of its socio-ecological particularities and they will have to live with the negative economic and social consequences of environmental policy decisions. As Haynes (1993: 223) suggests, while it may be simplistic to claim that marginalised and 'local' people always want to protect their environment, the issue is seen to be 'who has the "right" to destroy the natural environment: local people or outside interests?' For advocates of DIPS, justice, rights and accountability are therefore seen to be promoted when the formulation of policies with environmental effects involves inclusive deliberation.

In northern countries, a concern with environmental justice has entered policy-making through the activities of green radical politics, the perceived links between social justice and sustainability and attempts to legitimise environmental policies (Dobson 1998). In the south, issues of environmental justice have been less high on the political agenda but there has been a growing emphasis within development literature and practice on rights-based approaches and social exclusion (De Haan 1999; ODI 1999).

Participation in environmental policy-making is also valued as an end in itself through its ability to empower participants through what they learn during deliberations. Greater environmental awareness and the development of transferable skills are potential outcomes. In addition, the transformation of citizens' values and preferences during DIPs has been demonstrated. Participation is, therefore, not only promoted for instrumental benefits, but it is also celebrated as a way of inculcating characteristics such as empathy, virtue and feelings of community (Rossi 1997). Across the world, there have been longstanding traditions where direct citizen empowerment is seen as the central objective of legitimate social action. However, issues of 'empowerment' do not just apply to citizen participants. Many have argued that DIPs provide an important learning experience for the participating policy-makers, challenging their attitudes and behaviour through their interaction with non-elite people (IDS 1998).

This section has examined a series of themes behind the growing interest in DIPs for environmental policy-making. It has shown that, although there may have been different emphases, similar themes have been responsible for the emergence of DIPs in the north and the south. Of course, some of these themes represent broad trends that may apply to a variety of sectors and policy issues. However, other themes, especially those relating to complexity, uncertainty and trust, portray elements particularly relevant to environmental policy. So far, this paper has examined the characteristics of DIPs in environmental policymaking and how they have emerged. The following section will focus on how DIPs actually function and what role they have in the policy process.

4 PARTICIPATORY ENVIRONMENTAL POLICY PROCESSES – EXAMINING THE EXPERIENCE

This section describes and critically examines participatory policy processes that have recently been used in environmental policy-making in countries of the north and the south. A review of the relevant literature was conducted to produce the case material¹². For each case attention focused on the objectives, purpose, range of participants, selection, methods, scale, subject, initiation, transparency and policy linkages of DIPs. Table 1 presents three of these elements to provide a brief introduction to the cases that will be cited in the following discussion.

The nature of the case material in Table 1 needs to be clarified. First, a relatively small number of cases were found. While this in part reflects the emergent nature of these processes and the limits of the literature search, it is also because of the relative dearth of recent empirical research published on participatory policy-making¹³. Second, Table 1 does not intend to describe all DIPs that have occurred in environmental policy-making but to highlight the different styles and forms utilised. Where a number of DIPs with similar characteristics have been identified (e.g. LA21 processes) only one example has been included in the table.

The literature reviewed for this current study was produced from a search of Infoseek, BIDS, ELDIS, the Participation Reading Room and the British Library of Development Studies at the Institute of Development Studies and the University of Sussex Library.

For example, Button and Mattson (1999), Pelletier et al. (1999) and Renn and Webler (1992).

Third, detailed reports of each case were rarely obtained and the case material used was often designed to promote particular techniques rather than provide a considered or critical analysis. This clearly limits the depth of the discussion possible. Finally, the case material in Table 1 rarely labelled the participatory approaches used as 'deliberative and inclusionary processes'. However, the cases of DIPs cited refer to practices that have the characteristics of DIPs described in Section 2.

The functioning of DIPs and the nature of inclusion and deliberation found within them will be examined first (Section 4.1). The discussion will then move on to the broader policy process and the role these DIPs can and do play in environmental policy-making as a whole (Section 4.2). The similarities and differences in the use of these processes in northern and the southern settings will be emphasised throughout.

The lack of case material published on this subject has already been identified by Chess and Purcell (1999), Gaventa and Robinson (1999), IDS (1999) and Tamang (1994).

Table 1: Cases of dips in environmental policy-making

Case Study	What objectives?	Who is included?	The procedure and methods used (See Appendix A for descriptions
Case Study	what objectives.	who is included.	of methods)
(1) Innovative Development for Air quality in Santiago, Chile (del Valle 1999)	 To make a highly complex environmental problem manageable To operationalise a plan that is legitimate and effective To get the mutual commitment of the citizens and government To produce a metropolitan plan and enable participative management/ implementation of this plan 	 Different participants at different stages but in total: Government officers, NGO members, consultants, university researchers and citizens. [About one half of the instruments included in the plan came from the citizens proposals] 	
(2) Law of Popular Participation, Bolivia (Blackburn and De Toma 1998; IDS 1999)	The formulation of 5-year municipal development plans and the implementation of local development projects.	Representatives mainly but citizens in information production	Law empowering registered CBOs in both rural and urban municipalities to participate in plans and implementation of development projects. Municipal participatory planning applied with PRA related tools. Participation enhanced by creation of vigilance committee as a watchdog of municipal councils.
(3) Participatory Poverty Assessments (PPAs) eg Uganda's UPPAP (IDS 1999)	 To create space for the voice for the poor in providing a deeper understanding of the dynamics of poverty, coping mechanisms and regional characteristics. To introduce a participatory element into conventional poverty analysis, to complement, inform or validate conclusions from other kinds of data collection and information sources. Documentation and systematising local knowledge as a basis for policy formulation 	· Community members/the 'poor' and facilitators	Scaling up of participatory approaches – usually PRA related tools used in a sample of communities.
(4) Land tenure policy change in Madagascar and Guinea (Freudenberger 1998)	Use of RRA to inform policy decisions at the national level regarding Land Tenure policy and national resource management legislation	· Direct participation of citizens in information production	National Academics, development workers and Government staff involved in conducting case study RRAs, trained and facilitated by LTC Wisconsin University, in different regions and presenting findings to multiple government and NGO stakeholders at a number of regional workshops. In Guinea, those in the RRA teams were only Government staff.

Case Study	What objectives?	Who is included?	The procedure and methods used (See Appendix A for descriptions of methods)
(5) Wetland management policy development In Pakistan and India (Gujja <i>et al.</i> 1998)	 To assess current impact of protected area policies on local communities To revise management plans in the light of interaction between local people and outsiders To initiate dialogue on policy reforms needed 	Direct participation of citizens in information production	PRA training for, exercises conducted by, government and World Wildlife Fund staff. Appraisals completed in villages in National Parks in both India and Pakistan
(6) Central American Commission on Environment and development (CCAD) (Zazueta 1995)	 To heighten awareness of region's major environmental problems To build regional consensus and identify regional priority actions and a regional Environmental Action Plan To build the capacity and image of CCAD as a legitimate catalyst for policy dialogue in Central America 	· National government ministries and regional agencies, national NGO representatives external governmental and nongovernmental organisations,	Seven national workshops – 1 per country – to discuss and rank key issues. National workshops with a standard workshop methodology partly facilitated by NGO representatives.
(7) National Environmental Fund in Bolivia (FONAMA) – (Zazueta 1995)	 Created in 1990 to attract and administer funds in support of investments and projects to protect Bolivia's environment and natural resources. Participation of NGO reps in decision-making 	Representatives of a league of environmental NGOs and other NGOs represented on funding allocation committees	LIDEMA, a prestigious league of Bolivian environment organisations, is one of five voting members of FONAMA's board of directors, its highest decision-making body. LIDEMA has access to information and the authority to monitor FONAMA's activities – a role of independent watchdog. Funding allocations on a committee of 8 – 4 from government and 4 from 'independent sector' including NGOs and research institutions
(8) Delegated planning: PROAFT in Mexico (Zazueta 1995: 28)	· Reformulation of Mexico's Tropical Forest Action Plan	New NGO In each workshop, 60 people – including representatives of NGOs, CBOs, private sector and government involved.	A new NGO (5 people from 2 established NGOs and from the National university) was established to carry out a participatory process to combine planning with action and consultations with stakeholders. 1) NGO/academic personnel contracted to conduct forest studies 2) promotion and financing of Tripartite initiatives to improve forest management with the government, an NGO/university and the community 3) 4 workshops conducted in regions to discuss forestry policy

Case Study	What objectives?	Who is included?	The procedure and methods used (See Appendix A for descriptions of methods)
(9) TFAP in Bolivar, Ecuador (Thrupp et al. 1994; Zazueta 1995)	Production of a provincial Tropical Forest Action Plan	· Communities participated in information production and community planning and community representatives in analysis and wider plan development.	Planeamiento Andino Comunitario (PAC) – the Andean adaptation of PRA. Emphasises oral expression, condenses each exercise into a shorter time, incorporates musical interpretation and short skits, and uses village festivals as the main forum for such activities. 1) Involved sensitisation and invitation to participate, establishment of village committees, PAC training, village committee conducted 2-day workshop for problem identification, committee visually represented and presented and ranking took place. 2) Micro regional planning workshop – aggregated plans developed. Federation officials, community officials, village committees and collaborating agencies participated. Federation plans developed.
(10) Agricultural policy analysis in Nepal (Gill 1998)	· Establishing trends in long-term food grain productivity	· Community members took part in the survey	PRA/RRA combined with questionnaire survey
(11) Government livestock development programme, Mongolia (Tamang 1994)	Aim to improve livestock production, management and use. Included a review of pastoral institutions, grazing land tenure and land policy	· Community members took part in the survey	PRA/RRA
(12) Consensus Participation in Protected Areas in Zambia (Warner 1997)	Development of resource management plans for Game Management Areas – areas covered by wildlife protection legislation but which are also home to bona fide local residents	Community participation and participation of government / NGO stakeholders – separately and together at different stages	Stakeholder analysis, Stakeholder targeting, External stakeholder assessment, Community Participatory assessments, participatory preparatory workshops, Policy planning forum
(13) National Land Use Plan, The Gambia (Verheye 1999)	Development of recommendations for a National Land Use plan	· Community participation in RRAs. Facilitated by external consultant.	Technical GIS study to establish physical potential of land in different agro-climatic zones. Then examine previous and conduct new PRA /RRA case studies in each zone to establish why potential not being met. To provide information for government so that it will be able to implement a national land use policy effectively
(14) Zimbabwe District environmental action plan (Keeley and Scoones 2000)	To facilitate local sustainable development Set of prioritised plans and projects with links to relevant line ministries and district government	Representatives of line ministries, district government, and local populations either through representatives, or direct interaction through facilitating teams	No detailed studies as yet, but participation may well be an instrumental gathering of information – conversations with officials suggested that there may be contestation over how a DEAP is framed – is the focus exclusively natural resource management or more comprehensive local rural development priorities?

Case Study	What objectives?	Who is included?	The procedure and methods used (See Appendix A for descriptions of methods)
(15) Zimbabwean Mock parliaments (Mukamuri forthcoming)	To create a forum for farmer reflection and interaction between farmers and particularly field staff on natural resource legislation Awareness of different perspectives by different stakeholders, possibly development of consensus around how to implement NR legislation in different settings	Farmers, extensionists, Natural Resources officials, district government, NGOs, there may also be room for 'traditional' expertise – chiefs/kraalheads etc	A chaired workshop style debate – may take place in the rural areas, or may involve gathering participants in town.
(16) Malian gestion de terroir process (Keeley and Scoones personal communication)	 Teams of facilitators bring different stakeholders together to reflect on local land use (within the 'terroir') and to develop plans for improvement Series of negotiated land use plans, communities trained in natural resource management, maybe agreed investment in natural resources. 	Pastoralists, farmers, GT team members, (local government to limited extent)	Largely PRA. But the major criticism is that the frame for deliberation is set beforehand – critical in that the bounded space of the terroir may be biased against pastoralists, and may in fact not be the most relevant unit for anyone in livelihood terms. The objectives are also criticised as fairly predetermined and bureaucracy biased: maps of the terroir delineating what resources are to be used for what.
(17) Zimbabwean Environmental Management Bill (Keeley and Scoones 2000)	 Aim to unify and modernise array of colonial and post-colonial natural resources legislation – overlapping, contradictory, located in different ministries. To be done through participatory workshops, hearings etc. Single coherent piece of legislation setting out rights and responsibilities of different stakeholders 	NGOs; environmental lawyers; unclear to what extent communities	Those involved criticised organisation of the consultative procedures: notification of meetings, time to prepare formal responses.
(18) Ethiopian National Conservation Strategy/ Environment Policy (Keeley and Scoones 2000)	Workshops and discussions to elicit natural resources priorities and strategies for management nationally and in different regions National and Regional Conservation Strategy comprising policy guidelines and investment plans; Environment Policy	· Representatives of different stakeholder groups, particularly state agencies	Major criticisms of the degree of participation and deliberation: the regional plans that emerged were identical to the national ones in most cases. Key issues like land tenure are kept off the agenda.

Case Study	What objectives?	Who is included?	The procedure and methods used (See Appendix A for descriptions of methods)
(19) Citizen Foresight Project: Citizen's Jury on genetically modified organisms in the UK (Wakeford 1998)	To discuss the use of genetic engineering in food production with the aim of allowing citizens, rather than politicians, to define what is in the public interest.	Twelve citizens randomly selected heard the evidence from expert witnesses.	Ten weekly sessions where the jury cross-questioned the witnesses and deliberated on the issues. The jury drafted its own conclusions, some unanimous and some agreed by a majority, which were then presented to the Government.
(20) Siting of hazardous waste disposal facility in Alberta, Canada (Fisher 1993)	· To site a hazardous waste disposal facility	· Local citizens to the proposed siting area	Public meetings, funds for community to hire own experts, money for community to offset burdens on local infrastructure, local leadership organised monthly meetings and analysis of plants environmental reports – 'translated' by consultants into a format understandable by community members.
(21) Environmental management of the marine oil trade in Alaska, USA (Busenberg 1999)	 Joint Prince William Sound Risk Assessment – aimed to avoid previous adversarial policy disputes and to enhance the public legitimacy of the research findings. 	RCAC, the oil industry and two relevant government agencies were the steering committee for a research team conducting a risk assessment.	Jointly managed risk assessment between RCAC (citizens group), the oil industry and two relevant government agencies. The risk assessment conducted by joint team of experts and the stakeholders were the steering committee – met with the researchers 15 times during the course of the study. Researchers used basic records data but were also asked to obtain local knowledge of maritime community with the help of steering committee members.
(22) Brecon Beacons National Park planning, UK. (Tewdwr-Jones and Thomas 1998)	· Development of a rural local plan for the National Park	The exercise was conducted in most of the settlements in the national park	Public meetings using an adapted Planning For Real exercise, combined with a 'traditional' bilateral consultation with stakeholder organisations, including government departments. Plan was developed by the authority from the priorities expressed in these exercises. Second round of public consultation then occurred, through more conventional public meetings, to invite comments on the plan.
(23) Priority setting for LA21 planning, Troyan, Bulgaria (ICLEI 1998)	To prioritise environmental risks/problems and issues and develop an environmental action plan	Technical and Policy Committees comprised of members from local govt, business, NGOs, farmers, small villages, students, teachers, media and technical experts	'Representative committees', questionnaire surveys of wider population, public meetings/education. Analysis of data done by committees through consensus workshops

Case Study	What objectives?	Who is included?	The procedure and methods used (See Appendix A for descriptions of methods)
(24) Urban environmental assessment in Greenpoint New York, USA. (ICLEI 1998)	 To assess the total pollution impacting the neighbourhood To enable local residents to lobby for improved environmental enforcement To design of environmentally sound economic development projects specially designed for the neighbourhood by local citizens 	· Local residents, environment advocates, private sector, elected officials are on the CAC.	Local residents given necessary data and tools to independently assess pollution risks and environmental compliance by local firms and facilities. Citizens Advisory Committee, including citizens and others, meets monthly to provide a forum for citizens to discuss environmental benefits sought and to design projects to reduce problems.
(25) Environmental risk appraisal of genetically modified crops through Multi- criteria mapping, UK (Stirling and Mayer 1999)	 To enable constructive debate and regulatory appraisal of a highly politicised and disputed subject matter – GMOs Purpose is to 'map' the key technical and social issues rather than to reach a consensus. 	Regulators, academic scientists, representatives of biotechnology industry and the food supply chain, and a variety of religious and public interest groups	Multi-criteria mapping: Intensive process of interviews, scoring, ranking, quantitative analysis and discussion.
(26) Local environmental action plan development, New Forest, UK (ESRC 1998)	 To improve the prioritisation of issues in the Local Environmental Action Plan To promote the involvement of key stakeholders 	· Members of the stakeholder group came from the public sector (district council), voluntary organisations (e.g. Friends of Earth, local fishing club) and private sector (e.g. Southern Water)	Stakeholder decision analysis: Combination of deliberative procedure (discussion and negotiation between stakeholders) with a systematic multi-criteria decision analysis approach. Over four workshops, the stakeholder group worked through the stages of multi-criteria assessment: learning about the issues; developing criteria for assessing them and assessing each issue against each criterion using weighted scores.
(27) The UK's People's Panel on public services (UKCEED 1998)	By listening to and learning from people's views the UK central government hopes to be able to provide the services that people want.	· 5000 randomly selected UK members of public	Not clear how deliberative – information based on questionnaire surveys
(30) Community visioning in the UK (Stewart 1998)	 Bringing together all interested people to examine the directions for a local area. The purpose is to establish a 'vision' participants have of the future and the kind of future they would like to create. Visioning may be used to inform broad strategy for a locality, or may have a more specific focus (as in environmental consultations for Local Agenda 21). 	· Local individuals and representatives of organisations	Using a variety of forms of discussion including such approaches as future search.

Case Study	What objectives?	Who is included?	The procedure and methods used (See Appendix A for descriptions of methods)
(31) Citizens Panel in Switzerland (Renn and Webler 1992 in Rippe and Schaber 1999)	· Locating a waste disposal site in the Canton Aargau	Represent- ative sample of people from potential site comm- unities	Citizens of twelve communities which offered potentially suitable locations for the waste disposal site were asked to take part in a citizen panel and met regularly over six months. Citizen's panel involves: Random sample of population, four committees established, introduction of issues, conflicting interpretations and different options, group and plenary discussions, evaluation of options, recommendations produced, discussion of recommendations by committee representatives in a supracommittee, final recommendations to media and public officials
(32) Contingent valuation (Ward 1999)	To establish what a socially representative sample of the relevant population estimate believes are the monetary benefits to society of the production of environmental quality supplied at a certain level.	· Citizens with expert input	Citizen's juries or deliberative polling
(33) Consensus conferences in Denmark (Rippe and Schaber 1999)	Examples of subjects discussed include: 'mapping the human genome', 'traffic and the environment' and 'electronic identity cards'	· Citizens with expert input	15–20 citizens are informed about the issues, they then formulate key questions and identify experts to answer these questions. The experts present their answers that the lay people then discuss with an opportunity to ask new questions. Final document produced as a report of their consensus. Presented to all participants and experts to correct errors. Then presented to media conference. Organisers publish another report that explains the process and procedures of the conference.
(34) Deliberative polling by public utilities in Texas, USA (Fishkin 1991)	Public consultation by utility companies as part of energy resource planning process	· Customers	National random sample, participants come to central location, baseline poll, provision of briefing materials, face-to-face discussions and a panel of opposing experts and politicians. At the end of several days of working through the issues, poll the participants on their views.
(35) LA21 planning in Lancashire, UK (ICLEI 1998)	Development of an environmental forum to: — improve the social, economic and environmental quality of human settlement in the county — integrate environment and development in decision-making — protect atmosphere, land resources, oceans and coastal resources — promote education, public awareness and training To produce: — Green Audit: to establish baseline and indicators of progress — Local Environmental Action Plan and overseeing implementation	central government departments and agencies, local government, industry, business, academic institutions, volunteer groups and societies	Working groups and public meetings and education campaigns – consensus aimed for in decision-making

4.1 Inclusion and deliberation: how do dips work?

Inclusion

Only a minority of those who will be affected by environmental policies will be able to participate in the policy process (Lapintie 1998). As a result, the issue of who to include in participatory policy-making is critical. Warner (1997: 414) suggests that inclusionary processes either focus on previously excluded perspectives, often by emphasising the 'popular participation' of citizens, or attempt to incorporate the views of multiple stakeholders, including citizens, through 'stakeholder participation'. This distinction is apparent in the cases in Table 1 and will be dealt with in turn.

Popular participation

In the north, when 'popular participation' in inclusive policy-making is the primary objective, it usually means citizens directly participate in the deliberation of policy options¹⁴. However, when there is a similar emphasis in the south, citizens are more likely to be encouraged to produce information about their situation that is then included in the deliberations of policy options by policy-makers¹⁵. In both settings the actual 'inclusiveness' of popular participation is often problematic. Renn et al. (1997: 222) identify three generic selection procedures for appointing citizens as 'participants' in inclusive processes¹⁶. The first is self selection based on the volunteer principle. This applies for any public hearings and in some cases of local appraisal¹⁷ and local planning¹⁸. This selection procedure has received substantial criticism because it is argued that those with more time, resources, status, and motivation (often combining along lines of gender, age, class, race and education) will be disproportionately represented19. The second procedure is the selection of participants by the facilitating agency and their invitation to the process. For popular participation in policymaking, this procedure appears more common in the south. If done effectively, it can lead to the active inclusion of traditionally marginalised communities and citizens²⁰. However, some writers are concerned that certain marginalised people will still not be selected or will not be able to participate, particularly women (e.g. Mosse 1994), children (e.g. Johnson et al. 1998) and transitory community members (e.g. McLain and Jones 1997; Schroeder 1999). The third procedure is through the systematic or random selection of citizens from

For example, the cases from Canada (20), Denmark (33), Switzerland (31), UK (22) and USA (23 and 34)

For example, the cases from India/Pakistan (5), Madagascar/Guinea (4), Mongolia (11), Nepal (10), The Gambia (13), Tanzania and Uganda (3). The validity of such 'information production' by citizens in DIPs will be discussed later in Section 4.2.1. The issue is only identified here to highlight the common meaning of popular 'inclusion' in policy-making in the south.

As Renn et al. (1997) notes, these selection procedures can be combined or structured sequentially during an inclusive process.

Although the case material does not always specify the precise selection procedures, it is likely some of the cases using RRA and PRA may have used self-selection during their activities.

For example, the case from UK (22).

Many authors have identified problems with using only self-selective inclusion for participatory processes in both the north and the south. Examples include Chambers (1997), Guijt and Shah (1998), Nelson and Wright (1995), Selman and Parker (1997) and Selman (1998).

As attempted in the RRA/PRA methods used in India/Pakistan (5), Madagascar/Guinea (4), The Gambia (13) and Uganda (3) cases.

the relevant public. This form of selection procedure was only found in northern countries in the cases where citizen's panels, citizens juries, consensus conferences and deliberative polling were used²¹. By providing a representative sample, this procedure aims to enable the participation of citizens from all sectors of society. However, the small groups of people usually present in these activities cannot portray the complexities of a total population (Rippe and Schaber 1999). Barnes (1999) examines citizen's juries used by health services in Belfast and Swansea and found that no black or disabled people were involved because of their small numbers within the relevant populations. In addition, using simple categories of people for selection criteria are often inadequate as each individual has multiple dimensions of difference – gender, class, caste, religion, ethnicity, age, marital status etc. – none of which can be given primacy (Nelson and Wright 1995). As Hoyes *et al.* (1993: 39) argue:

'representative forums often ask too much of delegates. People from black or other minority ethnic groups may be asked to speak for the whole "black community", an impossible task where there are many different cultures and traditions.'

Clearly if each combination of multiple social attributes is treated as a single type of participant, potential participants will become innumerable (Ahluwalia 1997). Although a balance must be struck between generality and complexity the cases suggest that those facilitating DIPs do not always acknowledge the extent of complexity that exists.

Stakeholder participation

'Stakeholder participation', where multiple stakeholders are included in deliberation, is a common form of participatory environmental policy-making in the north and the south (Macnaghten, *et al.* 1995; Warner 1997). The different stakeholders can be self-selecting²² but are usually actively invited by the facilitating agency²³. In the north, stakeholders usually include government ministries and agencies, private sector interests and academics, as well as NGOs and citizen groups. In the south, donors and international NGOs can also be present²⁴. Sometimes self-selected citizens are directly involved in deliberations with representatives of other stakeholders²⁵, but it is more common for citizens to be represented as stakeholders by individuals or organisations²⁶. In some cases in the south, citizens have been involved directly in information provision whereby deliberation occurs between citizen representatives and other stakeholders²⁷.

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For example, the cases from Denmark (33), Switzerland (31), UK (19) and USA (34). Participants for Danish consensus conferences were systematically chosen to be representative of the broader population but were chosen from a pool of people who had expressed a desire to participate in response to national newspaper advertisements (Rippe and Schaber 1999).

For example, the cases from Bolivia (2) and USA (21).

For example, Bolivia (7), Bulgaria (23), Central America (6), Chile (1), Ecuador (9), UK (25, 26 and 35) and Zambia (12).

For example, the cases from Central America (6) and Ecuador (9).

For example, the cases from Chile (1) and USA (24).

²⁶ For example, Bolivia (7), Bulgaria (23), Central America (6), Mexico (8), UK (25, 26 and 35) and USA (21).

For example, the cases from Bolivia (2), Ecuador (9) and Zambia (12).

Closely linked to issues of accountability and legitimacy, the nature of stakeholder representation, and particularly citizen representation, is critical in participatory policy-making. The inclusion of citizen representatives, rather than 'ordinary' citizens, is partly because of the time and resource constraints of the policy-making agency, but also because of the costs of direct participation for individual citizens. For example, Rossi (1997: 193) argues that the informal representation of citizens through interest groups allows for more, not less, participation in policy-making because 'interest groups provide a mechanism for filtering information and pooling resources'. In addition, Zazueta (1995) believes that the most effective way for individual citizens in the south to articulate their needs and negotiate successfully in environmental policy-making is through the inclusion of NGOs and CBOs that represent citizens in the process. This particularly applies where inclusive deliberation also leads to participation in policy implementation, as sustainable implementation is likely to be facilitated by community organisations rather than individuals²⁸.

However, several problems with the representation of citizens in DIPs have been identified²⁹. Sanderson (1999: 333) is concerned that the selection of individuals and groups to represent citizens can often be 'on the basis of *ex ante* assumptions and prejudices' and this can result in 'the use of known and established networks which may not actually speak for the broader community of users/citizens, especially those with special needs'. As Cochrane (in ESRC 1998: 10) argues, 'in any community there are people that represent, but they do not always represent for everything'. Selman (1998: 538) believes there is a risk that 'self-appointed advocates of a community's interests' will dominate the 'novel participatory and visioning techniques' increasingly used for environmental policy-making in northern countries.

Another potential problem of using representatives is that the proposed ideal deliberative procedure can be inhibited. Advocating the use of citizens panels where participants are randomly selected, Renn and Webler (1992) argue that representatives of socially organised groups are not allowed to question or to reformulate the interests they are obliged to articulate. This is seen to prevent communicative rationality and limit movement towards a consensus (Rippe and Schaber 1999). However, Rossi (1997) suggests that this constraint depends on the conception of representation applied. In the above situation, it is assumed that members of the public or group share identical interests and their representatives 'stand for' each member to ensure that these interests are incorporated in the policy-making process (ibid.: 244). However, an alternative and more dynamic conception of representation is where the representative is 'acting for' the members they represent (ibid.: 245). In this sense, representatives can act in a relatively autonomous and deliberative manner and take the interests of other participants into account. However, the viewpoints to be expressed and the conception of representation adopted should be determined by those being represented. Where selected stakeholders, such as NGOs or CBOs, are given the task of representing citizens during DIPs, 'ordinary' citizens may not be aware whether or how they are being represented.

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For example, the Bolivia (2 and 7), Bulgaria (23), Mexico (8), UK (26 and 35) and USA (24) cases.

Although the problems of representation for citizens are emphasised here, the same problems also apply for the representatives of other stakeholders in the deliberative process.

Motivation

Popular and stakeholder participation depends, in part, on the motivation of participants. Even where participants are not self-selected, the inclusionary criteria of DIPs assume that participants will want to work collectively and selflessly on environmental issues within a DIPs framework. In northern countries, the motivation of citizens to participate in DIPs has been found to be particularly low amongst those who are not affluent, retired or professional (Selman and Parker 1997). This may be because these citizens feel they have better things to do or are reasonably satisfied with the current situation (Cochrane 1996). However, it may also be because, unlike other stakeholders, citizens are not financially rewarded for their often lengthy participation (Selman 1998). Rippe and Schaber (1999) argue that it is therefore not realistic to expect citizens to engage in DIPs regularly. However, it is also possible, that citizens are not motivated for the same feelings of alienation, disaffection, indifference and distrust towards the state and scientific expertise that has partly prompted the use of DIPs in the first place (see Section 3.4) (Eden 1998; Selman 1998). There is a need for public trust in the institutions of environmental policy-making if people are going to want to get involved and participate appropriately (O'Riordan et al. 1998). As found in the Lancashire case (35), this may require additional measures aimed at addressing the factors giving rise to these negative perceptions (Macnaghtan et al. 1995)³⁰.

The motivation of participants is also predicated on the knowledge that the process will be effective and lead to improved policy decisions and outcomes³¹. If the process proves to be protracted, inconclusive in its findings or there is no potential or actual discernible outcome as a result of participation, stakeholders will either not become involved or will become disillusioned with the purpose of expending their time and energy in participation (Evans 1999; Stirling and Maher 1999). Tewdwr-Jones and Allmendinger (1998) criticise the overemphasis on process rather than outcome within many DIPs:

If the sole benefit of [DIPs] is to establish the arena for discourse among competing, multiple stakeholders, the whole process will be castigated as nothing more than a talking shop' (ibid.: 1983).

If the participation of previously marginalised citizens does not have an impact then DIPs will be seen as 'a democratic drama that has no functional consequence' (Hampton 1999: 169). A clear focus on outcomes by those responsible for facilitation, and the participation of stakeholders in real decision-making, is therefore required if the legitimacy of the process and participant motivation is to be maintained. However, this appears to have been rarely achieved. For example, 30 per cent of the participants in the Switzerland citizens panel (case 31) considered the whole procedure to be 'a game' (Rippe and Schaber 1999: 80). Tewdwr-Jones and Thomas (1998) discuss Brecon (case 22) where planners felt a DIPs exercise had been successful because a democratic process had been created, and did not see that the fact that the process had failed to deliver what the community expected. Similarly, the failure of facilitating organisations to fulfil the 'raised

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Another example is in the LA21 process in Thika, Kenya, where past incidents of financial mismanagement by the local council required initiatives to build public confidence before DIPs could be successful (ICLEI 1998b).

expectations' of communities has been a long-standing concern regarding the RRA and PRA processes used in southern countries (Leurs 1998). If these expectations are not fully met, dissatisfaction and disillusionment with the policy-making institutions is the likely result. In addition, some commentators question the ability of DIPs to influence policy because the reports produced are 'generally unquantified, often unclear and sometimes inconsistent. [They] may be indigestible to current bureaucratic and financial structures' (ESRC 1998: 6). However, Clarke (1998: 19) believes that even if 'a good looking report' is produced, DIPs reports are often 'destined to occupy shelf space rather than create change'. If the issue of impact is not addressed, there is a risk that faith in DIPs could become as undermined as faith in traditional policy processes. This will affect the quantity and quality of citizen motivation and inclusion in future processes.

Deliberation

While inclusion encourages breadth in decision-making, deliberation is more concerned with depth. Deliberation ensures that participation in decisions will be meaningful and not perfunctory (Rossi 1997). The key differences in the types of deliberation present in the cases of participatory environmental policy-making in Table 1 have already been identified. In the north, deliberation usually involves discussion about policy options, either by citizens and/or their representatives with other stakeholders. This type of deliberation occurs in the south, but here deliberation can also involve discussions between citizens, often through participatory research activities such as RRA and PRA in sample or case study communities. These activities are designed to produce information that is then introduced to larger scale policy deliberations at a later stage when citizen's representatives may or may not be involved. However, all the cases in Table 1 fit the criteria of deliberative processes identified in Section 2. They usually involve face-to-face interaction and, although visual techniques have often had an important role in the south³², and are increasingly doing so in the north³³, there is also a dependence on language through discussion, debate and the interrogation of visual outputs. All the cases appear to have operated, with the stated aim at least, of creating an atmosphere of respect and the promotion of mutual understanding and have attempted to produce an accurate appraisal or appropriate decisions with policy implications.

However, although only implicitly attempted in some cases, it is less apparent whether the outcomes of these processes have been produced through communicative rationality in an ideal deliberative procedure. As discussed in Section 2, an ideal deliberative procedure requires all participants to understand the subject and information under discussion, engage in effective debate, act in a completely open and honest manner, and, in the face of a 'better' argument, move towards consensus. Such requirements are, not surprisingly, difficult to put into practice. Button and Mattson (1999: 628) suggest that 'both citizens and [other stakeholders] can be forgiven for being relatively unfamiliar and a bit uncomfortable with approaching each

Even if policy is changed this will not necessarily lead to changes in outcome. Policy can exist as intention or as a symbol but may never be put into practice (Holland 1998).

For example, all the cases using RRA/PRA.

For example, the case from UK (22). See also NEF (1998).

other about complex policy concerns under relatively unfamiliar conditions'. However, a far more serious challenge is whether undistorted communication can occur when such initial inhibitions have been overcome.

Power relations

Habermasian notions of communicative rationality have been criticised for a naivety about power relations (Cochrane 1996). While accepting that the distribution of power between individual stakeholders needs to recognised, and acknowledging that such power can be 'explicitly manifested in overt conflict and as embedded in social routines' (Healey 1999: 1132), proponents of communicative techniques suggest that through deliberation 'new relations of collaboration and trust...[will] shift power bases' (Healey 1997: 263). However, assuming such a shift can take place, it is likely to have a limited impact given the extent of the initial power differentials that potentially exist between participants³⁴. In addition, by adapting Habermas' social concepts of action, Tewdwr-Jones and Allmendinger (1998: 1981) argue the procedures used in DIPs only deal with the institutional aspects of power structures and display little regard for the existence of power inherent within the individual. First, an actor within the discourse arena can employ strategies and tactics to bring about their own desired ends, even if they have agreed to adopt an open, honest and trustworthy style of argumentation. Some participants may be less scrupulous than others in the kinds of arguments they advance and the way these are packaged (Dryzek 1990) and others may 'deliberately obfuscate the facts and judgements for their own benefits and for the benefit of their own arguments' (Tewdwr-Jones and Allmendinger, op. cit.: 1982). Second, participants in DIPs are likely to share agendas and common values. Groups of stakeholders will form natural pacts to ensure that their viewpoint succeeds in a discourse arena, even if they sign up to be open and honest in the debate. Third, individual stakeholders may attempt to present a particular image of themselves, either to evoke an acceptable image to others, or to present a completely false position, to minimise argumentation and debate. Tewdwr-Jones and Allmendinger (ibid.: 1981) therefore argue that communicative action is 'inherently political and powerful, as it is unable to control the individual thought processes of stakeholders or to guarantee that all participants will act in an open and honest manner all the time'.

An example is provided by Pellow (1999) who examined a range of cases where environmental activists were invited to participate in DIPs alongside industrialists and state actors during environmental policymaking in North America. He suggests that 'infrapolitics' (c.f. Scott 1990) were often present within the deliberative procedure because environmentalists, as members of less powerful groups, were disguising their actions as conciliatory and co-operative by participating in DIPs. In reality, the environmentalists saw DIPs as providing new openings for public participation in which to pursue their own agenda and 'the opportunity to launch a sustained conflict-style strategy within a collaborative framework' (ibid.: 202). Such adversarial tactics included threatening to walk away from deliberations, co-ordinating with other environmental

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Participants can potentially be those from national governments, powerful private companies as well as traditionally marginalised citizens.

organisations outside the process to enhance the power of those within, initiating an aggressive escalation of demands and refusing any flexibility over policy positions. Pellow argues that, far from adopting an ideal deliberative procedure, activists used the rules of DIPs to forward their agendas for social and environmental justice, particularly when government and industry actors also appeared to abuse the process.

Consensus

Concerns about the nature of the deliberative procedure are particularly relevant when considering the role of consensus during participatory environmental policy-making. A (if not the) basic assumption of communicative rationality is that consensus can be reached through a deliberative approach (Tewdwr-Jones and Allmendinger 1998). Participants are not enjoined merely to respect the viewpoints of others: they are required to engage these viewpoints, to take them as a starting point in shaping dialogue and move forwards to evolve a generalised will through reflection and discourse (Rossi 1997). It is usually the immediate objective of DIPs for environmental policy-making that a genuine consensus emerges in representing the current situation and recommending how policy should be changed.

However, a number of challenges regarding consensus can be raised. The first is whether consensus in DIPs is possible given the fundamentally different and incommensurable perceptions and scientific paradigms that may be held by the large number and diverse range of participants that can be present. Rossi (1997: 231), for example, suggests 'consensus is seldom likely among any other than the smallest groups of persons. It is well recognised that, as the number of participants in a decision-making process increases, consensus becomes less likely'. Some of the cases in Table 1, particularly those in southern countries, have consisted of many tens, if not hundreds, of participants³⁵. Second, even if consensus is possible, the unifying assumptions and aims of communicative rationality are at odds with a desire for self-expression and difference (Tewdwr-Jones and Allmendinger 1998). In this way the search for consensus, where there will always be winners and losers, could silence rather than give voice to those already marginalised (King and Stoker 1996). This is particularly likely where the values and interests of some parties are subordinated, knowingly or unknowingly, to those of more powerful, articulate or persuasive actors in the participatory process (Pelletier et al. 1999; Smith and Wales 1999). Such 'deliberation' could result in the most powerful stakeholders simply gaining more influence over environmental policy-making.

Third, the pressure for consensus has the potential to inhibit the argumentative process. Pellow (1999), discussing the North American cases described above, found that peer pressure within the process could intimidate participants to produce a 'consensus' that was largely rhetorical or based more on grudging compromise than communicative rationality. The power and intransigence of some participants can mean that an emphasis on consensus does not provide 'the most just system for handling differences of opinion' (London 1995: 5), but produces an outcome that does not rise above a low common denominator

For example, the cases from Central America (6), Chile (1) and Mexico (8). In addition, while the numbers are not specified in the case material, many people are also usually involved in RRA/PRA exercises.

(Bloomfield *et al.* 1998). Where complex decision issues are being discussed or when the stakes are high for one or all of the groups of participants, the likelihood of achieving meaningful consensus is much reduced.

A fourth concern is, of course, what happens when consensus is not reached. In the Lancashire case (35), for example, consensus was not initially achieved over various elements of the local environmental action plan. Stakeholders set aside contentious issues for further discussion so that the overall progress would not be halted and then persisted in negotiations until general agreement could be reached (ICLEI 1998). However, when such negotiations breaks down, Healey (1995) proposes that the 'argumentative jumble' be mediated by independent facilitators or settled in a 'court' of an unbiased third party to provide a fair treatment of disagreements. A problem with this is that the purpose of argumentation and communicative rationality is not to settle disputes but to resolve them. It requires the readiness to qualify ones own standpoint, or even reject it if it cannot be successfully defended, to produce the best possible solution (Lapintie, 1998). As Tewdwr-Jones and Allmendinger (1998: 1979) argue:

'attempts to mediate disagreement involve not only an acceptance of ontological difference but also a desire to unify it. Reaching agreement through open discourse is then dependant on the threat of imposition – hardly "uncoerced" '.

In addition, where external solutions to disputes are required the authority of the third party and the basis of that authority becomes important. A fifth concern, also expressed by Tewdwr-Jones and Allmendinger (1998), is about the 'rights of appeal' after a consensus has been reached. Should individual stakeholders who feel that the decision has gone against their own desires be given an opportunity to challenge the consensus at a later date? An appeals process could undermine the process, and encourage actors to pursue their ends outside of the discursive arena, as well as undermining the Habermasian ideal of communicative rationality.

Two of the northern cases reviewed recognise some of these above concerns and explicitly attempted to use DIPs without producing any form of consensus amongst participants. Fishkin and Luskin (1998: 8) argue that deliberative polling (case 34) aims only for participants to 'inform and refine their own individual views'. Opinions are measured both pre and post deliberation by confidential questionnaire. The only 'verdict' lies in the statistical aggregation of the individual opinions. They argue that 'artificially induced consensus masks the real variety of preferences' and suggest that if small groups are required to reach an open collective decision it 'magnifies the influence of "opinion leaders"" (ibid.: 8). The multi-criteria mapping (MCM) approach, used in case 25 to discuss genetically modified crops in the UK, involves in-depth individual interviews, the analysis of results by the researchers, and then joint deliberation by all participants to reassess or confirm their initial inputs. The MCM process can help 'map' the issues, views and evidence in a debate, establishing the main contours and clarifying key areas of dissent and convergence between different constituencies as a basis for further assessment or policy judgement. Stirling and Mayer (1999: 7) argue that this approach is valid because it can secure the trust and involvement of participants and ensure that 'constituencies with starkly divergent interests and values to fully engage in the appraisal process' while avoiding any 'spurious attempts to impose "consensus". In addition, they argue that these techniques should

be 'heuristic' rather than provide an 'analytical fix' because the final policy decision and its associated justification must remain, at least to some extent, intrinsically contingent and subjective (ibid.: 12, 54).

Expertise

The role of scientific expertise is another critical issue relating to the nature of deliberation. This is particularly important because, as discussed above in Section 3.3 and 3.4, part of the rationale for DIPs is their ability to reduce the uncertainty and mistrust increasingly associated with the use of scientific expertise in conventional environmental policy-making.

In the south, those using participatory research activities emphasise the knowledge and expertise of the participating community or group. It is one of the basic principles of PRA that the 'internal' knowledge, priorities and perceptions of local people should be the starting point (Chambers 1997). However, the validity of the information produced through these activities has been challenged (Warner 1997). While local people may be able to add to total understanding through an accurate knowledge of local variabilities, they do not necessarily have sufficient knowledge and understanding of the broader economic, organisational and political situation (Thrupp et al. 1994). In addition, Renn (1998) argues that public perceptions are at least partially driven by biases, anecdotal evidence and false assumptions about cause-effect relationships. Therefore, as Lash (1995: vii) suggests, it is important not to 'idolise the wisdom of "the people" 'because

'the villagers, peasants, indigenous communities or women who gain a seat at the table under the rubric of "participation" are sometimes right and sometimes wrong when it comes to solving environmental problems'.

The need to combine scientific and citizen expertise is recognised in those cases in Table 1 using RRA/PRA. These processes have usually been used to produce information to inform a policy process that is also receiving information through scientific expertise. The other cases in Table 1 also do not rely only on the cognitive claims, values and interpretations of non-elite citizens but incorporate 'scientific' expertise during the deliberation process itself. It is common in both the north and the south for this to be by utilising the scientific expertise of participating stakeholders36. However, it is also common, particularly in the north, for non-stakeholder scientific experts to be invited to contribute as advisors. This may be to carry out specific independent research to feed into the deliberation³⁷ or for experts to act as 'witnesses' so that citizens can learn about the issues and consider different sides of a policy debate³⁸. Scientific expertise is also often indirectly incorporated through 'expert' documentation utilised by citizens and other stakeholders to enhance their argumentation and deliberation³⁹.

For example, the cases from Denmark (33), Switzerland (31) and USA (34).

For example, the cases from Central America (6), Bolivia (2), Bulgaria (23), Chile (1), UK (22 and 26) and Zambia 36

For example, the cases from Canada (20), Mexico (8) and USA (21 and 24).

As far as it is possible to tell from the case material, documentation containing 'expert' information was used in all of the cases where external experts were incorporated.

However, the use of internal and external scientific expertise within an ideal deliberative procedure is problematic. Drawing on Tewdwr-Jones and Allmendinger (1998: 1975), it can be argued that the application of scientific expertise within DIPs contradicts Habermasian notions of communicative rationality. Habermas (1987) claims that the three 'cultural spheres' of the Enlightenment (science, morality and art) have distanced themselves from the 'lifeworld' (the sphere of 'everyday life', including stocks and interpretation of previous knowledge) through their domination by instrumental rationality and 'experts'. It was in order to counter the invasion of the lifeworld by experts and the instrumentality of 'the system', that Habermas developed his theory of communicative rationality. However, when DIPs incorporate scientific expertise and give it privileged status, communication can remain dominated by the effects of power and ignorance. Burgess et al. (1998: 1447) argue that proponents of communicative rationality in policy-making 'fail to acknowledge sufficiently the differences in discursive power between those with technical, professional expertise and lay people'. As Sanderson (1999) suggests, a key basis for authority derives from the notion of professional expertise, founded upon the modernist conception of privilege deriving from access to 'objective factual knowledge'. This can disempower citizens as it leads them to defer to perceived authority. Button and Mattson (1999) examined seven DIPs held throughout the USA in 1997. They found that, while citizens needed to learn to become informed about the issues, citizens became locked into a 'deferential and sometimes passive role' (ibid.: 622). Exchanges with experts, who often used highly technical language, reflected pre-existing hierarchies and were 'distinctly different from that which one might hope for in a context of deliberation' (ibid.: 627). While such deference may be partially overcome through a comparison of contrasting scientific claims, as takes place in a citizens jury, if a process is to be fully participatory, citizens and other stakeholders should not only receive information but learn how to research and supply their own scientific facts and uncertainties (ESRC 1998). However, such 'citizen science' (Irwin 1995) is rarely possible given the short time frame within which DIPs usually operate and can in turn be criticised for reinforcing the reification of scientific procedure and knowledge.

Transparency and verifiability

The transparency and verifiability of the process are further key elements within a deliberative process. Stirling and Maher (1999) argue that, although DIPs can be seen to improve the transparency of policy-making by incorporating traditionally marginalised groups into the process, DIPs are themselves open to concerns over the verifiability, reproducibility and transparency of their results. They believe that, for DIPs to maintain their advantage over traditional policy processes, the techniques used should 'allow for an "audit trail" explicitly linking the results with the various inputs, assumptions and parameters adopted in the analysis' (ibid.: 1999: 13). However, of the cases in Table 1, it was only in their use of MCM to examine GMOs that these issues were dealt with.

4.2 The role of DIPs in the broader policy-making process

This section examines how DIPs fit into existing policy processes. Too often, the institutional framework of DIPs, as bounded policy spaces created 'from above', does not take into account the broader processes of environmental policy-making. With much of the literature on DIPs focused on their internal ethnography and micropolitics, the broader picture is often not assessed (Tewdwr-Jones and Allmendinger 1998). However, for DIPs to fulfil their objectives it is not just their internal workings that are important; they must be pivotal to the whole policy process. By reflecting on the networks, interactions and power relations between individuals and organisations *outside* DIPs events, a more contextualised understanding of the potentials and limitations of DIPs processes in environmental policy-making can be achieved.

Who convenes? Who defines the objectives?

With most DIPs constituting policy spaces created from above, it is the organising agencies who usually determine the nature of DIPs. Who convenes the process clearly has implications for the definition of objectives and, in turn, the framing of problems, the choice of methods and tools, the choice of scale and allocation of resources, and the links to wider policy processes.

Across the case studies examined most convening organisations were government agencies. However, there are also examples where regional organisations⁴⁰, NGOs⁴¹ and the private sector⁴² have used these processes to develop their environmental policies. In some southern countries, these processes have been at least partially initiated by international donor agencies in partnership with the policy-making agency⁴³. In addition, in some northern countries, DIPs have occasionally been initiated by organisations outside the policy-making bodies⁴⁴. Nevertheless, the fact that most DIPs are both initiated by, and utilised within, state organisations means that it is the state that has substantial control over how DIPs are to fit into the policy-making process (Bloomfield *et al.* 1998).

So what objectives for a DIPs process were defined by the organising agencies across the case studies reviewed? Nearly all of the DIPs cases in Table 1 were expected to fulfil consensual and instrumental objectives (see Box 1, Section 2). This is perhaps not surprising given the emphasis on 'policy-making' that requires agreement and action. The only cases where consensus was not expected, and unrestricted debate

For example, the case from Central America (6).

For example, Borders Forest Trust, a charitable environmental organisation, held a citizen's jury to examine its proposals for a habitat restoration project in the Border Regions of Scotland in 1998 (IPPR 1999). The MCM exercise (case 25) was jointly conducted by an NGO (GeneWatch UK) and an academic research unit (SPRU).

For example, the case from USA (21).

For example, cases from Ecuador (9), Mongolia (11), The Gambia (13) and Zambia (12).

Chess and Purcell (1999: 2690) suggest that this has occasionally occurred in the USA. The Danish consensus conferences were initiated by the Danish Board of Technology and were sent to politicians, journalists and interest groups rather than having specific objectives for policies within a particular organisation (Rippe and Schaber (1999).

was emphasised were, as already discussed, those in the north using deliberative polling and MCM. The 'educative' component was present in a number of cases⁴⁵. While implicitly part of all DIPs, this educative element was sometimes also explicitly applied to the education of participating/facilitating policymakers and other stakeholders as well as citizens, particularly in the south where participatory research took place⁴⁶. However, noticeably absent from the typology in Box 1 and the cases in Table 1, are expectations (beyond 'education') of either empowerment and social justice or the enhancement of public trust and the reduction of uncertainty – objectives that have been identified by some commentators as partly responsible for the emergence of DIPs in environmental policy-making in Section 3.

Using the categories in Box 2 (Section 2) the case study DIPs were used, at least partially, for the production of information to inform the deliberations of the organising agency's policy-makers at a later stage. In some, the information was produced from participatory research, while in others it was from the recommendations that emerged from citizen and/or stakeholder policy deliberations. The production of information for policy through participatory research has been criticised for being an extractive process, taking knowledge from citizens but not contributing to their longer term participation or empowerment (Gaventa and Robinson 1999). As Warner (1997) argues, conspicuously absent from policy-related participatory research is any intention to raise the capabilities of the poor and disenfranchised to understand, interact and negotiate with 'outsiders'. One reason for this criticism is that the primary rationale for such research is to make policy more responsive to the needs and realities of affected citizens, while the methods used (PRA etc.) typically derive from a tradition where direct empowerment is seen as a key objective (Norton 1998).

However, Gill (1998) argues that, although the use of DIPs for policy research may be largely extractive, it is not exploitative because policy-focused research focuses on influencing policy through the power of its product rather than investing in the process as an agent of change in itself. Holland (1998) suggests, however, that the differences between a focus on product and process in policy-related participatory research should be seen as a continuum rather than in dualistic terms. Freudenberger (1998: 68), for example, argues that the use of RRA activities in land tenure policy development in Madagascar and Guinea (4) led to numerous 'spin off activities in these villages that either addressed immediate concerns or enabled the populations to present their worries more effectively to local government officials'.

Using DIPs only for information production, albeit through the inclusive deliberation of participatory methods, remains one step removed from the direct examination of policy options by citizens that many cases in Table 1 involved. In these cases, although information production was often an element, consultation was the most common purpose for DIPs. Renn *et al.* (1997) make a helpful distinction regarding consultation. Consultation can sometimes involve asking citizens and/or other stakeholders to take part in the deliberations and evaluations of decision options to contribute their concerns, while leaving

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For example, cases from Central America (6), Chile (1), Denmark (33), Ecuador (9), Switzerland (31), UK (25) and USA (24 and 34).

the final decision to those in the organising agency⁴⁷. However, it can also mean giving citizens and/or other stakeholders the right to make recommendations for the final decision, while leaving the organising agency the option to override this recommendation⁴⁸. Finally, some DIPs in Table 1 were also given the function of monitoring and oversight of the organising agency's activities⁴⁹ and some others, mainly in the south, were expected to lead to decision-making and implementation by participants⁵⁰.

The nature, timing and flow of information between participants, and the potential impact on environmental policy, is therefore often orchestrated by the organising agency (Drysek 1993; Schroeder 1999). As Bloomfield *et al.* (1998: 11) argue 'power lies substantially with those who decide where the boundaries are drawn'. Cochrane (1996: 205) argues that, because the organising agency is so often the state, DIPs can be used as political neutralisers 'sanitising the political process by removing possibilities of conflict and masking the unpleasantness of clashes between different interests' to consolidate state legitimacy and authority. Chess and Purcell (1999: 2685) also believe they can be used as a form of 'boosterism' to channel and contain citizen's demands and delay difficult decisions. Selman (1998) suggests that local governments have sometimes used DIPs in LA21 planning only as a mechanism to reinforce their service delivery role through gaining improved information and to symbolically represent a wider range of interests in policy determination.

Who frames the problem?

Across the case studies, the organisers are mainly responsible for selecting the issue, or choosing the policy, to be considered during DIPs. At all policy levels, there are cases where DIPs have been used to develop general environmental policies, reflecting the cross-sectoral nature of environmental issues. These are either for planning activities⁵¹ or are in the form of 'environmental action plans' that have been prepared for, or have emerged from, the Earth Summit in 1992⁵². However, as Table 1 shows, DIPs have also been used for a range of sector-specific environmental policies. In the south, these have focused on agriculture, air pollution, forestry, land use/tenure, livestock and wildlife. In the north, air pollution, biotechnology, energy, hazardous waste disposal, transport and water pollution have been emphasised.

Through the choice of subject area, or the definition of a problem in a particular way, the organising agencies can frame DIPs by establishing a particular policy discourse⁵³ where there is little opportunity to

Policy-makers have been involved in RRA/PRA activities in a number of cases including some PPAs and those cases from India/Pakistan (5) and Madagascar/Guinea (4) and. In these cases, the experiential learning of policymakers as facilitators was considered a key objective (Gaventa and Robinson, 1999; Freudenberger, 1998).

For example, the cases from Canada (20), Denmark (33), Switzerland (31), UK (22) and USA (34).

For example, the cases from Bolivia (2), Bulgaria (23), Central America (6), Equador, UK (26 and 35), USA (21) and Zambia (12).

For example, the cases from Bolivia (2 and 7), Canada (20), UK (35) and USA (21),.

For example, the cases from Bolivia (2), Bulgaria (23), Chile (1), Ecuador (9), Mexico (8) and Zambia (12).

For example, the cases from Bolivia (2) and UK (22).

For example, the cases from Bulgaria (23), Central America (6), The Gambia (13), UK (26 and 35) and Zimbabwe (14).

Hajer (1995: 44) defines discourse as 'a specific ensemble of ideas, concepts and categorisations that are produced, reproduced and transformed in a particular set of practices and through which meaning is given to physical and social realities'.

challenge the assumptions behind the issues that are being addressed and so recast the questions. This risks fostering a type of 'participation' where the environmental problems and, by implication, their solutions have already been defined (Zazueta 1995). The degree to which actors can exercise choice over their various discursive practices and form 'discourse coalitions' around common storylines will depend on the nature of the DIPs process. Potentially, such coalitions can attempt to secure support for their particular construction of reality through argumentative interaction in a struggle for discursive hegemony (Hajer 1995). Taking a positive view of the potential for DIPs processes to challenge framing assumptions, Healey (1997: 277) describes DIPs as a 'discursive key' that can turn the storyline of a policy debate from one account to another. While this may occur, it downplays the dominance, and influence on environmental policy-making, of well-established discursive practices of dominant players (often represented by the organising agency). For example, the hegemony of scientific and rationalistic discourses position the moral, ethical, cultural and behavioural dimensions of environmental issues as containing limited value, even within the context of participatory environmental policy-making.

Button and Mattson (1999: 623) describe the case of a DIP in Portland, Oregon, USA where 'the perspective of land as something to be cherished and not as something simply to be used was clearly marginalised within the context of this highly technocratic discussion of "resource management". This led to a representative from a Native American group publicly expressing anger at being excluded from the planning of the event where there would have been a chance to move the forum away from a purely technical discourse. The case shows that, although the agencies organising DIPs may not be able to, either intentionally or unintentionally, dictate the discourse completely, by framing the event such agencies are able to have an important influence on the nature of deliberation that takes place. Similarly, in the Brecon case (case 22), Tewdwr-Jones and Thomas (1998) believe that a significant constraint on the argumentation process was that key elements of the policy discourse, such as the status of the 'national park' and what a local plan could or could not contain, were non-negotiable. These issues were outside the frame of what DIPs had been set up to do by the organising agency so the results of the process can be linked with its starting assumptions (Stirling and Maher 1999).

Methodological challenges

The choice of methods, and the design and context for a DIPs process may act to reinforce particular framings of the issue. With the subject area for deliberation identified, the language of discussion set, and the options for follow up constrained, a closer look at how methods are used in context is required.

The growing range of methods and tools for DIPs processes (see Appendix 1) clearly offers a potential for expanding the scope and depth of deliberation. Many commentaries in the case studies focus on the potential of these methods to provide alternatives to the conventional approaches of environmental appraisal, cost-benefit analysis and risk assessment. The inclusion of a wider range of stakeholders' views, the incorporation of questions of value and ethics and the potentials for reframing issues through processes of

deliberation are all seen as important contributions. However the focus on methods and tools in isolation potentially leads to an implicit argument for a 'participatory fix' replacing the limitations of previous 'scientific' of 'technical fixes' to environmental problems. With many organising agencies engaging in DIPs as a consequence of perceived implementation failures, the tendency to create another managerial solution to complex decision problems is often apparent.

The case studies examined tackled a range of environmental decision problems, from highly specific, relatively uncontentious issues at a local level, to wider national, sometimes even international, issues which were highly disputed, often with powerful interest groups adopting particular positions. Thus, for example in the case of the Local Environmental Action Plan developed in the New Forest in the UK (case 26), the problem was circumscribed, the issue of developing a set of priorities for the Environment Agency relatively uncontentious, and the range of potential stakeholders limited. An apparently effective process of inclusive deliberation resulting in an uncontested decision was therefore possible. However, such a process did not allow a wider debate – for example whether conservation objectives were justified given other livelihood or economic concerns.

In other situations participatory processes may flounder, in part because the methods used encouraged a more open, holistic assessment of issues. For example, in Zimbabwe, the District Environmental Action Planning process is coordinated by the Department of Natural Resources in the Ministry of Environment (case 14). Despite the involvement of a range of other line ministries, civil society organisations and local people in the process, the focus remains on environmental and resource management questions at a district level. Although the plans may throw up contradictions with national legislative arrangements, these cannot be dealt with in the context of a district plan, nor can other issues outside the particular departmental area of responsibility. The participatory appraisals carried out by local people in collaboration with government officials very often identify priorities that lie outside the environmental remit of the organising agency. This has presented problems and all that can be done is to pass on the results to others in the hope (almost always unfulfilled) that they will deal with them.

In other cases DIPs have tackled highly contentious issues which carry with them broader political or commercial implications. Thus, for example, the development of national sustainable development plans may imply fundamental shifts in policy for the government⁵⁴. Similarly, the use of consensus conferences and citizen juries for the discussion of new biotechnologies and genetically modified foods enter a highly charged political debate, with major industrial and commercial interests with a significant stake in the outcomes of any deliberation⁵⁵. While useful and informed discussions may take place within the DIPs context, which in the longer term may help to reframe the debate and create a new discourse informing action, the processes of deliberation in themselves may not be sufficient to create consensual decisions. The challenge in such settings, therefore, is to link DIPs to broader processes of policy change, where negotiations over conflicting interests and values can occur within a wider political process.

For example, the cases from Ecuador (9), Zambia (12) and Ethiopia (18).

For example, the cases from the UK (19) and Denmark (33).

The scale at which the DIPs process is undertaken is another important methodological challenge. The DIPs in Table 1 have been used at international, national, regional or local scales. In the north, while national and regional issues have been discussed within DIPs, these processes have tended to focus on developing local environmental policies in municipalities, districts, counties and protected areas. In the south, while local and regional policies have received attention, there has been far more of an emphasis on using DIPs for national policy development. The only case where DIPs were found to be used for international policymaking was in Central America (case 6). But what scale is most appropriate for an effective DIPs process? It is argued by some commentators that citizens have a particular right to participate in determining local environmental policies, where citizens will be able to contribute their 'expert' knowledge of their locality (see Section 3.5). Where DIPs are used for regional or national policies, challenges regarding participant representation, accountability and motivation are likely to be exacerbated. For example, Rippe and Schaber (1999) believe that, because of the potential influence of lobbying by powerful political or commercial interest groups, DIPs may be helpful as consulting fora at the local level but are an inappropriate mechanism for national policy-making. On the other hand, however, the challenges of participation are perhaps greatest at regional and national level. Here citizen participation is least common and concerns regarding policy effectiveness, uncertainty, legitimacy and justice are the greatest.

Multiple expertises

Participatory methods are of course not an alternative to scientific expertise or more technical assessment procedures, but how they are combined with these is crucial. One argument for a more participatory approach is that alternative expertises can enter the debate. With a level playing field for communicative deliberation, there can be an opening up of alternatives, it is argued. Science can play an important role, but not necessarily a dominant one. However, as already discussed, this assumes power relations between different forms of expertise are unproblematic, and that consensual resolution of conflicting perspectives is possible. However, where alternative framings of an issue, drawing on different forms of expertise, result in incommensurable visions, an easy solution may not be possible. Here power relations are key, and the dominance of particular forms of expertise may become apparent.

Across the case studies, scientists and other 'experts' enter a DIPs process in different ways. In some cases, scientists are called (for example to juries) as expert witnesses. While the 'facts' that are offered may be disputed by the participants, this may be difficult given the technical nature of the issue at hand. In other cases, alternative scientific perspectives are presented as a result of research carried out by lay publics, but are presented by a scientist advocate in the language and terminology of conventional scientific discourse. This may offer the option for alternative viewpoints to be presented (cf. 'housewife epidemiology and toxic waste; HIV/AIDS research), but the subsequent deliberation is framed by modes of argumentation rooted in science.

In other situations (perhaps in the majority of cases), the role of formal scientific expertise is more opaque. In these cases technical experts are part of the broader participatory enquiry – members of appraisal

teams, part of stakeholder groups etc. – but their role in the process is often unproblematised. In the PRA literature there is much talk about the importance of professional reversals, of 'handing over the stick' to poor people during participatory appraisals, but the implications of this are often not seen through. While the visual methods of PRA may offer the potentials for alternative perspectives to be appreciated, and professional shifts to occur, in practice very often the end result of a PRA in the context of a development planning or policy exercise is a report. In the translation of field experiences to a report to be delivered to a government office or aid agency, the implicit assumptions of the expert participants (often the more literate and likely the primary authors) is all too apparent. A range of case studies – whether district environmental plans or poverty assessments – contains within them assumptions about environmental issues which derive from conventional 'expert' notions of the problem⁵⁶. Thus, without more explicit attention to the interaction of different forms of technical expertise, deriving from different framings of the issue, the range of DIPs methods themselves are insufficient.

Ethics, values and issues of justice: extending the frame of decision-making

Perhaps the most important contribution of DIPs methods is that they bring into the debate wider questions of ethics and values, linked to debates around rights, justice and morality. The entry of such issues into environmental policy-making extends the debate beyond technical assessments (from whatever framing position). But policy-making processes are poor at dealing with such qualitative issues of personal or collective judgement. The administrative machinery of decision-making can deal with cost-benefit analyses or risk assessments with relative ease, and can even adapt to cope with more qualitative inputs if delivered in a particular way (such as rankings, multi-criteria assessments and so on). The danger of DIPs being simply ignored because they are delivering the wrong type of information which cannot be accommodated by bureaucratic processes of decision-making about environmental policy is very real. While it was difficult to make assessments of 'impact' from the case study material examined, there is plenty of anecdotal evidence to suggest that participatory processes can easily be by-passed, or be seen simply as 'add-ons' to a mainstream approach. The tension between quantitative, economics driven poverty assessments and participatory poverty assessments initiated by the World Bank in many developing countries is one example.

The exclusion of broader concerns becomes reinforced, if policy-making is conceived of as rational, managerialist decision making on the basis of objective information. With this linear view of the policy process, normative judgements that go beyond this, it is argued, should be dealt with elsewhere through what are seen as separate political processes. As discussed, most cases involved the employment of DIPs methods in an essentially implementation-driven approach, and implicitly restate this divide, with politics, ethics or moral values left outside the agenda. When wider issues were opened up – as in the case of the Lancashire County Council sustainable development strategy – this presented major challenges for the way such core concepts as 'sustainability' were seen, and resulted in a fundamental reframing of the issue (Mcnaghten *et al.* 1998). Here the importance of the DIPs process, facilitated through a variety of methods, was important. In

For example the cases in Uganda (3), Ecuador (9) and Zimbabwe (14).

many cases, it is the longer term impacts of engagement with a DIPs process – for the whole range of stakeholders, and the organising agency in particular – that may be particularly significant. While the outputs of deliberations may be ignored, there may be potentials for creating new ways of talking about an issue, and, through the process, the creation of new networks of actors, linked to different policy communities. In the longer term, this may result in the emergence of new policy discourses, around new coalitions or communities.

Institutional contexts

Thus, while the DIPs methods may offer the potential for such fundamental shifts, it is the particular institutional context (including the level of resources, the nature of facilitation, see below) which is key. DIPs processes and institutional settings are inevitably deeply intertwined. The interaction of particular intellectual and institutional orderings result in particular choices of methods and forms of application, with diverse consequences. The disentangling of the shared commitments of organising agencies and DIPs participants is therefore essential. The case studies often showed the imprint of the organising agency on the outcomes of the DIPs process, mediated through a range of 'participatory' methods. The potentials for more fundamental shifts in policy thinking and action are thus fundamentally constrained through a process of co-construction of problems and solutions created by the use of DIPs methods in particular institutional contexts.

So who should facilitate a DIPs process in order for such key dilemmas to be addressed? Stewart (1998) argues that DIPs should be run by independent organisations whose reputation depends on maintaining the integrity of the process. However, this leads to questions of potential impact. Chess and Purcell (1999) argue that the greater the independence of DIPs from agency control, the greater influence the processes are likely to have on policy decisions. Rippe and Schaber (1999), on the other hand, recognise the problems of institutionalised DIPs, but believe that policy influence will be minimal unless these processes are fully incorporated. Perhaps the key issue is the need to create more reflexive capacity within any institutional setting. This requires setting up processes which are explicit about diverse framings, which are reflective about the role of experts of different sorts, and that are able to manage a process which links into policy change processes in ways that the outcomes of DIPs processes are not by-passed.

As discussed earlier one of the key requirements of an effective DIPs process is transparency. This encourages trust in the process, and allows the cross-checking, validation and auditing of information and decisions. Unlike other decision-making methods, DIPs methods (see Appendix A) are often highly contingent, and not replicable in the same way formal surveys or quantitative assessments potentially are. The contextual contingency of such methods, however, is a great part of their strength and given the important objectives of deliberation and inclusion should not be denied. But for the information emerging to be widely accepted – especially among sceptics more accustomed to conventional, non-participatory modes of decision-making – efforts to lay down an explicit and transparent 'audit trail' before, during and after a DIPs event is key. This would allow the auditing of both decision outcomes and processes in a clear and transparent way. Although incomplete documentation was available for most of the cases examined, this

ideal was not reached fully in any of the examples looked at. Representation of information and analysis of results was almost invariably rather opaque, leaving a great deal to the trust of the reader in the facilitators of the process and the authors of the subsequent report.

Resource constraints

DIPs processes may take up substantial resources, including costs, time and staff. These can have a large impact on the effectiveness of the inclusion and deliberation that takes place. Although proponents of DIPs claim that 'better' decisions will reduce costs in the long run, the short-term costs of participatory environmental policy-making can be large (Ward 1999). Evidence suggests the resources required to facilitate some types of DIPs are high and staff intensive⁵⁷. As Tewdwr-Jones and Thomas (1998) identify in Brecon (case 22), resource limitations have sometimes led to compromises in the use DIPs practices. While this is an issue for all organising agencies, resource constraints are particularly likely for those initiating and using DIPs in southern countries.

The time scale over which these processes are used, and the treatment of time within them, are also important (Leurs 1998; Stirling and Maher 1999). There is, for example, frequently a pressure to make quick decisions and DIPs are sometimes seen as time-intensive processes creating excessive delay. However, this perception partly misunderstands the approach because the delegation of areas of decision-making, still based on deliberation and inclusion, can frequently speed up the process and, depending on the powers given to it, DIPs can even be quicker than formal planning (Healey 1997). Time can also be saved in the long run through 'better' decisions. However, time is clearly needed during DIPs to ensure satisfactory inclusion and then introduce multiple stakeholders with a wide range of knowledge and abilities to the DIPs process and subject matter. Subsequent deliberation and, if required, the emergence of a consensus regarding policy change also takes time. Circumstances where there are limited resources, a need to elicit the involvement of 'expert' specialists or marginalised citizens with busy schedules⁵⁸ and critical environmental risks exist requiring immediate solutions may mean that deliberation and inclusion cannot be effective (Stirling and Maher 1999). Rippe and Schaber (1999: 80) argue that, because of the costs and time involved, a full-scale DIP 'is only suitable for exceptional, especially very controversial, public policy issues'.

The facilitators of DIPs processes are also a key resource, as well as a factor influencing the process and outcomes of DIPs, that is largely determined by the organising agencies. Facilitators appear to be either from the organising agencies or have been selected by them⁵⁹. The cases in Table 1 suggest that both the capabilities and commitment of these facilitators need to be appropriate for DIPs to proceed effectively. In particular, skills in managing participatory processes, consensus building and argumentation are required (Healey 1998; Leurs 1998). These skills are very different from the traditional 'expert' role of environmental

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For example, citizen juries have cost between £5,000–£30,000 in the UK (Lowndes et al. 1998)

Those with the least amount of free time to participate in DIPs, are likely to be the poorest members of society, particularly women and especially in the south (Leurs 1998).

Although this seems to be a logical conclusion, and certainly applied to most of the 'information provision' DIPs, very few of the cases actually specified who the facilitators were.

policy-makers (Lapintie 1998; Tuler and Webler 1999). As a result, some commentators, particularly from within the RRA/PRA tradition, argue that one of the most difficult aspects of raising local voices in the policy process through DIPs is challenging the in-built assumptions, attitudes and behaviour of facilitators and participating policy-makers (Kumar 1996; IDS 1999).

Linking to broader processes of policy change

The role that DIPs can play in environmental policy-making will depend on how DIPs relate to broader policy processes. The literature on policy processes shows how environmental policies are not simply produced by decision-makers in a linear policy-making framework (Hill 1997). Instead policy emerges from multiple and overlapping decisions, often on an incremental basis throughout the policy process, by the interaction of many actors in different settings. The decisions taken are themselves influenced by a combination of competing political interests, actors in networks and policy discourses (Keeley and Scoones 1999) 60. If policy is largely produced outside the linear policy framework of the policy-making institution, by multiple combinations of elite actors and power relations, then how DIPs articulate with such processes is key. DIPs therefore cannot be seen simply as another route to providing information to a rational and linear process. More thought needs to be given to the particular political, administrative and bureaucratic context for decision-making. Across the cases, a recurrent, but usually unstated assumption, was that the DIPs process was feeding into an essentially linear policy process. But exactly how this was to be done was often unclear. In most cases little commentary was offered on how the DIPs outputs were to be directed towards, for example, advisory committees, specialist panels and technology assessments. However, some DIPs in Table 1 were facilitated by independent organisations who then sent the results to a wide range of key actors in the policy-making arena. Even so, how this approach was linked to a broader strategy for policy change remained unclear.

DIPs, as bounded policy spaces, are necessarily only a small part of the policy process. Environmental policy is determined and changed through a far broader set of power and knowledge configurations across multiple interfaces. The interaction between the 'soft infrastructure' of DIPs processes and the 'hard infrastructure' of formal democratic procedures, legal systems, regulatory approaches and so on (cf. Healey 1997) remains often poorly thought through.

A number of writers believe that the success of participatory environmental policy-making will depend on the extent to which representative democracy and DIPs are 'spliced together' in a mutually strengthened relationship (Selman and Parker 1997: 178)⁶¹. Selman (1998: 538) argues:

'conventional representative democracy may not be glamorous and may suffer from dismally low turnouts in local elections, but it is a well understood and constitutional method which bestows a genuine legitimacy on elected representatives to speak on behalf of constituents'.

46

For a detailed examination of these processes in environmental policy formation see Keeley and Scoones (1999).

The majority of cases in Table 1 were discrete events for producing particular policies and were therefore not integrated into the formal political process. However, in a few isolated cases, a legal and methodological framework for the integration of DIPs into the policy-making in public institutions has been developed. For example, in 1994, the Law of Public Participation in Bolivia (case 2) transferred authority and revenue to the municipalities and endorsed 'participatory planning' in these local state institutions (Blackburn and De Toma 1998). Where such integration has occurred, simultaneous broader institutional change, through decentralisation programmes, and the support of super-elites as 'policy champions' appear to have been particularly important⁶² (Gaventa and Robinson 1999; IDS 1999).

But the integration of participatory approaches into the more formal democratic systems and regulatory procedures governing environmental issues is not unproblematic. In different settings such an integration may occur in very different ways. Participatory approaches of consultation, for example, may be far more compatible with consensus based political styles where consultation and compromise are part of a widely accepted political culture. It is perhaps no surprise that in the field of technology assessment, Denmark is at the forefront of innovation with DIPs style methods (Kass 1999). In other situations, where a more confrontational political style and legislative approach is evident, participatory approaches may find it more difficult to find a home at the core of political decision-making. In other settings the legitimacy of governments may be challenged due to questions raised about their democratic status or the levels of corruption observed. Such situations, too, present challenges for a widely accepted DIPs process to link effectively to formal decisions. Therefore if DIPs approaches are to go beyond 'market research-based' democracy to have a more sustained impact, broader issues of political context and decision-making style need to be addressed. This requires basic questions to be asked about appropriate styles of democratic and inclusive governance and new modes of citizenship which respond to the challenges of more participatory approaches to dealing with environmental questions (cf. Jacobs 1999).

DIPs also have to articulate with the range of approaches to citizen action which affect environmental policy-making. Participating in DIPs is, of course, just one of the many routes through which citizens can influence environmental policy. Even if DIPs are available, citizens may prefer to influence environmental policies 'from below' through varied means of hidden resistance and civil action, coordinated by citizen groups, direct action movements or NGOs.⁶³ As Irwin (1995:45) argues, 'a large slice of the "action" over environmental concerns' has been outside formal mechanisms for citizen participation.

The perceived legitimacy and efficacy of DIPs compared to alternative strategies will influence the strategy citizens will choose to support. If DIPs are seen to be inappropriate or ineffectual, people may attempt to pursue their environmental agendas through alternative strategies, potentially side-lining DIPs and their outcomes. However, the converse is also true. Busenburg (1999) and Pellow (1999) describe cases

For discussions on the need to create links between DIPs and representative democracy see also Clark and Stewart (1992); O'Riordan (1998) and Shackley and Darier (1997).

Zazueta (1995) cites both the Bolivia (2) and Mexico (8) cases as significantly benefiting from personal presidential support.

See Section 1 for a description of these alternative strategies.

in the United States where citizen and environmental groups actively supported DIPs above other strategies because they considered these processes were the best way to get their voices heard and acted upon⁶⁴.

The other possibility is that citizens and their representatives outside of the DIPs process will pursue alternative strategies in an attempt to influence DIPs themselves. This may involve the 'positive radical flank effect' (Haines 1984 cited in Pellow 1999: 200), that has occurred with DIPs in the United States, where environmental/citizen organisations, external to the DIPs process, carry out co-ordinated protest action on the issues being discussed. The aim is to raise citizen support and enhance the power of those citizen representatives working within the DIPs framework (Pellow 1999).

On this issue, Rippe and Schaber (1999) are concerned about direct lobbying strategies by both citizen groups and more powerful interests. Reflecting on DIPs in Denmark (case 33) and Switzerland (case 31), they suggest that, unless institutionalised, DIPs will not have a great influence on national public decision making because, as suggested above, socially well-organised interest groups will still pursue their own interests through alternative strategies. However, they believe that, if DIPs are institutionalised into a national policy-making framework, 'interest groups would try to infiltrate and influence the decisions' (ibid.: 83) by contacting participants, and influencing the selection of citizens and experts. In this way, Rippe and Schaber argue DIPs would loose their advantages over conventional policy-making processes.

5 CONCLUSION

DIPs are clearly not the 'magic bullet' to solve the dilemmas of public participation in policy-making processes. DIPs must be seen within the broader context of policy processes, where policy change emerges from a variety of sources, where non-linear, often incremental processes dominate, and where power relations and political interests are key. Creating a space for more inclusive deliberation 'from above' is potentially one route towards more informed and effective decision-making, reflective of diverse perceptions and rooted in trust based relationships. However, it is clearly not the whole story.

Different contexts require different approaches. DIPs may be appropriate in some settings, but not in others. Seeking the appropriate combination of approaches and linking these to wider processes of policy change is therefore vital. As this review has shown, in-depth deliberation is important where multiple framings of environmental issues exist. Teasing out and making explicit the core assumptions and underlying premises of particular positions – whether emergent from scientific or lay understandings – is a central feature of deliberative processes. In environmental decision-making values, ethics and moral questions are

48

However, as discussed previously, in some cases the environmental groups continued their confrontational practices within the DIPs framework (Pellow 1999).

important, making moving from a technocratic, rationalistic approach to decision-making towards a more inclusive form essential. This is particularly relevant where trust is thin on the ground. DIPs therefore may be a useful starting point for building the necessary trust in decision outcomes, and addressing the scepticism of public perceptions around formal, expert-based institutions. Yet, as we have seen, this may not always be possible. Where the stakes are high, where positions have become entrenched and where interest group politics dominate, the opportunities for open forms of communication are often severely constrained.

Too often DIPs have been one-off events, separated from the wider policy-making process. Embedding such processes in effective institutional contexts is therefore seen as key. But this too suggests many challenges. Relations of power within policy-making bureaucracies may result in limited opportunities for alternative voices to be heard. Long established traditions of non-participatory styles of decision-making are not going to be changed overnight. Opening up spaces for participation may be currently in vogue, and may indeed respond to certain political and bureaucratic imperatives of the moment, but this will have limited impact without the emergence of more reflexive institutional forms which are genuinely responsive to new ways of thinking and acting. As the review has shown political and organisational contexts make a big difference to the potentials of a more participatory policy-making process. Where open debate, the acceptance of conflict and dissent and the encouragement of consensus and compromise are encouraged as part of a wider political and organisational culture, opportunities for effective participation are more likely. But equally, as the review has shown, these conditions are the exception, with the most common situation being that DIPs are used in an instrumental manner to further the existing remits of organising agencies.

Different phases of a policy-making process require different approaches. Early on (particularly where the issue at hand is new or highly controversial), there is a need to open out the debate and encourage multiple perspectives (technical, moral, ethical etc.) to be aired. But such encouragement of plurality is necessarily constrained if time and resources are to be allocated and decisions are to be made. Many DIPs methods aim for consensus-based decision-making. While this may be desirable, it may not be possible given the range of diverse perspectives and interests associated with environmental decisions. Where controversy is running high, divergent opinions are being expressed and conflict is apparent (or simmering), then multiple options may need to be tested in parallel. In such situations, conflicts must not be ignored in the vain hope that deliberative consensus will somehow emerge, but need to be addressed head on. Conflict negotiation and consensus building therefore need to be seen as two sides of the same coin. This requires a commitment to flexible, adaptive and incremental solutions to complex problems, which do not assume a single managerial response and a linear style of implementation. Under such settings, reflection and learning from experience will be key, capturing emergent compromises and dealing with trade-offs and conflicts along the way.

While the review of the case studies offers a rather equivocal message about the prospects for participation in policy-making, both north and south, this does not mean that there are no potentially longer-term benefits from engagement with DIPs. Currently DIPs are seen to be often simply contingent responses to perceived implementation and legitimisation problems by organising agencies, with little evidence shown of any intention (or indeed opportunity) to change in the short term. In the longer term, however, subtle

shifts in the framing of debates may emerge, new actor networks and coalitions may be built, and the capacities of DIPs participants may be strengthened through engagement with such processes. Depending on broader trends in power relations between key actors, the configuration of political interests and wider governance arrangements, such unanticipated consequences may find fertile ground. With an increasingly diverse range of actors engaged in environmental debates, with new coalitions and alliances being built which often transcend conventional boundaries and with shifts in the relationships between science, the state and diverse publics, new opportunities may be emerging. But such optimism must be qualified. In many settings – for example where aid flows dominate policy making, where 'civil society' is weak, or where a technocratic scientific establishment holds sway – a suitable caution must be added.

But contexts do change. The rapid pace of technological change shows no sign of abating: this will result in new forms of environmental risk, with uncertainty continuing to be a central feature of environmental decision-making. Across the world there is a growing concern about the links between environmental and livelihood/lifestyle issues among a wide range of actors, with new coalitions of interests forming that break down conventional barriers and categorisations. With this comes new ways of identification with issues, and so new understandings of citizenship where concerns about livelihoods, environmental change and technological risk are central. In turn, with this comes a healthy scepticism about conventional forms of expertise and a demand for access to decision-making and policy making institutions. In such changing contexts, then, participation in environmental policy process will become a basic requirement, not an add-on extra. It is our prediction, therefore, that the early experiments with DIPs over the last decade or so reported in this paper will therefore likely expand, deepen and intensify. We hope that the lessons emerging from this review will assist in continued honest and reflective assessment of this important emerging experience.

APPENDIX A: A SELECTION OF METHODS THAT EITHER HAVE BEEN OR COULD BE USED IN DIPS FOR ENVIRONMENTAL POLICY-MAKING

Area/neighbourhood forums (Lowndes et al. 1998)

Such forums are concerned with the needs of a particular geographically-defined area or neighbourhood. Meeting regularly, they may deal with a specific service area (e.g. planning or housing) or with a full range of local services and concerns. Area forums may or may not have dedicated officers attached to them. They may have a close link with relevant ward councillors or with councillors responsible for the service areas under discussion. Membership may be set or open. Where there is a formally-established membership (e.g. of representatives for tenants or community association in the area), members of the public may be free to participate in an open discussion at meetings.

Citizen's juries (Lowndes et al. 1998)

A citizen's jury is a group of citizens (chosen to be a fair representation of the local population) brought together to consider a particular issue set by the local authority. Citizen's juries receive evidence from expert witnesses and cross-questioning can occur. The process may last up to four days, at the end of which a report is drawn up setting out the views of the jury, including any differences in opinion. Juries views are intended to inform councillors' decision-making.

Citizen's panels (IPPR 1999)

Research panel

• A research panel is a large sample of a local population used as a sounding board by a public sector organisation. It is a form of opinion research which tracks changes in opinion and attitudes over time. These panels consist of 500–3000 participants. Members are recruited either through the post or by telephone as a sample of a population. Panels have a standing membership a proportion of whom will be replace regularly and who will be consulted at intervals. Participants are asked regularly about different issues over a period of time eg. The People's Panel on public services for the UK central government (Singleton 1998)

Interactive panels

 Other models also have a standing membership which may be replace over time, but they consist of small groups of people meeting regularly to deliberate on issues e.g. Health panel (Richardson 1998)

Community Issues groups (Clarke 1998)

The community issues group takes the focus group as its stating point then attempts to introduce the core elements of deliberation. A group of up to twelve people come together up to five times to discuss a

designated issue in depth. Each meeting lasts for up to two and a half hours. The first meeting has a similar format to that of a focus group, whereby the participants discuss an issue from their current knowledge base. Over the subsequent meetings, information is introduced so that their knowledge of the subject area is gradually built up. By the final meeting participants have become more informed and the opinions they express have moved beyond the automatic initial responses, towards the more thoughtful and anchored judgements. E.g. Public vision of UK health service.

Consensus conferences (IPPR 1999)

A panel of lay people who develop their understanding of technical or scientific issues in dialogue with experts. A panel of between 10–20 volunteers are recruited through advertisements. A steering committee is set up with members chosen by the sponsors. The panel attend two weekends where they are briefed on the subject and identify the questions they want to ask in the conference. The conference lasts for 3–4 days and gives the panel a chance to ask experts any outstanding questions. The conference is open to the public and the audience can also ask questions. The panel retire and independent of the steering committee prepare a report. It sets out their views on the subject. Copies of the report are made available to the conference audience and panel members present key sections to the audience.

Consensus participation (Warner 1997)

The framework used in Consensus Participation involves six activities. First, stakeholder analysis involves the identification of the relevant stakeholder groups. Second, stakeholder targeting involves bringing all stakeholders to a position where the are able to negotiate with other stakeholders on a more equitable basis. Third, external stakeholder assessment involves investigating the policies, legislation and activities of the government and other institutional stakeholders who may constrain or promote local actions. Fourth, community participatory assessments enable local people to identify their resource uses, assess perceived conflicts and concerns and plan community strategies. Fifth, participatory preparatory workshops bring all the stakeholders together to cover a series of specific cross-cutting issues. Participants produce a series of position statements that provide the basis for following discussions. Sixth, is the policy planning forum. Facilitators manage negotiations between stakeholders to build consensus and reach agreement on policies and projects. Seventh, participatory monitoring and evaluation takes place through the criteria agreed during the policy planning forum.

Deliberative opinion poll (IPPR 1999)

These measure informed opinion on an issue. A deliberative poll examines what the public think when they have had the time and information to consider the matter more closely. These polls usually involve 250–600 participants. A baseline survey of opinion and demography is carried out and the participants of the poll are then recruited to resemble the wider group both in terms of demography and attitude. Often briefing begins before the event by means of written information. They cover 2–4 days during which time participants

deliberate in smaller groups and compose questions to be put to experts and politicians in plenary group discussions. Their views on a given subject are measured before the poll begins and again once it has finished. Changes in opinion are measured and incorporated into a report. Deliberative polls are often held in conjunction with television companies

Electronic democracy (IPPR 1999)

- informal on-line discussions
- formal consultations using on-line debates

Focus groups (Lowndes et al. 1998)

One-off focus groups are similar to citizens juries in that they bring together citizens to discuss a specific issue. Focus groups do not need to be representative of the general population, perhaps involving a particular citizen group only. Discussions may focus on the specific needs of that group, on the quality of a particular service, or on ideas for broader policy or strategy. Focus groups do not generally call expert witnesses and typically last between one and two hours only, usually only involving 12 people.

Future search conferences (IPPR 1999)

A two-day meeting where participants attempt to create a shared community vision of the future. It brings together those with the power to make decisions with those affected by decisions to try to agree on a plan of action. The process is managed by a steering group of local people representing key sections of the community. About 64 people are recruited who are asked to form about 8 stakeholder groups within the conference. They take part in a structured 2.5 day process in which they move from reviewing the past to creating ideal future scenarios. Each of the stakeholder groups explains its vision and then a shared vision is explored. The conference ends with the development of action plans. Self-selected action groups develop projects and commit themselves to action towards their vision.

Innovative development (del Valle 1999)

Innovative development is a methodology consisting of four participatory steps. First, an 'action map' is formulated. This is a systematic vision for action of an attainable and desired future that reflects the consensus of participants. Second, there is an estimation of the distance from the current situation to the attainable future and of the capabilities that are available. Third, is a study of 'potentialities' – the systematic identification and evaluation of each of the prospective actions. Fourth, is the design for action. All methodological steps are carried out through the participation of 'relevant actors or stakeholders' who are convoked by an appropriate and legitimate authority.

Issue forums (Lowndes et al. 1998)

These are also ongoing bodies with regular meetings, but focusing on a particular issue (e.g. community safety or health promotion). Again, they may have a set membership or operate on an open basis, and are

often able to make recommendations to relevant council committees or to share in decision-making processes.

Multi-criteria mapping (Stirling and Maher 1999)

Multi-Criteria Mapping (MCM) attempts to combine the transparency of numerical approaches with the unconstrained framing of discursive deliberations. The technique involves: deciding the subject area, defining the basic policy options, selecting the participants, conducting individual interviews (2–3 hour session where additional options are selected, evaluative criteria are defined, options are scored and relative weighting is given to criteria), quantitative and qualitative analysis is conducted by researchers, feedback on preliminary results provided for participants, deliberation between participants takes place and, after the final analysis, a report is produced.

Participatory Rural Appraisal / Participatory Research and Action (PRA) (Holland 1998)

A family of approaches, methods and behaviours to enable poor people to express and analyse the realities of their lives and conditions, and themselves to plan, monitor and evaluate their actions. In PRA, outsiders act as catalysts for local people to decide what to do with the information and analysis that they generate. PRA methods are similar to those used for RRA (see below).

Planning for Real (IPPR 1999)

Planning for Real is a hands-on planning process first developed in the 1970s as an alternative to traditional planning meetings. Using models and cards, it can be used to address many issues such as traffic, community safety, condition of housing stock and environmental improvements. Planning for Real exercises are often initiated by a neighbourhood or residents' group. Material is provided by the Neighbourhood Initiatives Foundation to help people to embark on a neighbourhood survey to identify problems and issues. A three dimensional model of a neighbourhood is prepared by all sections of the community. The model is moved around the area to places accessible to the community. The Planning for Real Event is an open meeting that focuses attention on the model. Moveable options cards are used to identify problem areas and discuss how they may be solved. The event is followed by workshop sessions to prioritise options and identify responsibility for action.

Rapid Rural Appraisal (RRA) (Chambers 1997)

Data collection by outsiders (researchers and/or practitioners who are not members of the community or group with whom they interact) through the use of methods that include participant observation, semi-structured interviews and visual techniques (maps, matrices, trend lines, diagrams).

Service user forums (Lowndes et al. 1998)

These are ongoing bodies which meet on a regular basis to discuss issues relating to the management and development of a particular service (e.g. an older peoples day centre, or a leisure centre or park). Forums may have a set membership or operate on an 'open basis'. Such groups may have the power to make recommendations to specific council committees or even to share in decision-making processes.

Stakeholder decision analysis (ESRC 1998)

A method of combining a deliberative procedure (e.g discussion and negotiation between stakeholders) with systematic multi-criteria decision analysis. Deliberations between stakeholders elicits criteria which reflect underlying value judgements. The criteria are weighted according to their relative importance during a series of workshops. Each social or environmental issue of concern is then scored against criterion. Weighted scores were summed to give a final score. This process can focus discussion between stakeholders, facilitating networking and partnership building, promoting negotiation and avoiding confrontation. Being open and transparent it is seen to be fair. The outcome gains legitimacy from the procedure followed.

Visioning exercises (Lowndes et al. 1998)

A range of methods (including focus groups) may be used within a visioning exercise, the purpose of which is to establish the 'vision' participants have of the future and the kind of the future they would like to create. Visioning may be used to inform broad strategy for a locality, or may have a more specific focus (as in environmental consultations for Local Agenda 21).

For a description of other methods that could be used for participatory environmental policy-making see NEF (1998).

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