

PATHWAYS TO SUSTAINABILITY



# DYNAMIC SUSTAINABILITIES

Technology, Environment,  
Social Justice

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## An Alternative Politics for Sustainability

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### Introduction

The last chapter argued for broadening out the inputs to, and opening up the outputs of, appraisal – to offer a broader array of options, defining multiple potential pathways to sustainability. In particular, this means attention to those pathways that are sometimes hidden and especially to those that support the needs and aspirations of people struggling to escape poverty and marginalization. This chapter asks what would it take for governance processes themselves to broaden out and open up – to receive this richer and more plural knowledge and act on it, incorporating it into pathways to sustainability?

This takes more than methods. Appropriate choice of appraisal methods, if applied with all the qualifications and suggested practices outlined in the last chapter, can certainly help broaden out and open up governance processes. This can encourage reflexivity, challenge power relations and show policy actors alternative narratives. But what is actually taken up and acted upon will clearly still be influenced by power structures, politics and interests acting well beyond the domains accessible by any appraisal method. Good ideas and evidence do not necessarily result in change. As we saw in Chapter 4, there is a huge array of cognitive, institutional and political pressures, interacting through processes of governmentality, which often close down options towards narrow risk-based and stability-oriented perspectives, reinforcing the interests of the powerful. There is a need therefore to bring governance and politics back to centre stage. Attention to context and the particularities of institutions, politics and policy processes in different settings and to the networked, multi-level character of governance arrangements today must be part of this.

Governing for sustainability is not straightforward. As discussed at the beginning of the book, there appears to be an emerging contradiction: just as things are getting more complex, powerful narratives, supported by powerful institutions are on the rise with the consequence that options are being closed down and alternative pathways obscured or obliterated.

Yet alternatives are possible. As we argued in Chapter 4, governmentality always generates possibilities for counter-politics. In this chapter, we pursue further the argument that there are chinks and spaces in existing governance arrangements. If opened up, these might allow alternative narratives to be acknowledged and appreciated, towards enabling new pathways. Likewise, we have seen glimpses of how governance might be further opened up to accommodate the kinds of more adaptive and reflexive approaches that are needed to cope with the deeper indeterminacies of knowledge and intractabilities of action.

In this chapter we focus in on two arenas and forms of engagement which offer prospects for opening up governance processes. First we look at understanding and influencing policy processes. Second, we move to an exploration of the ways in which citizen action and social movements can affect change. Both policy and citizen engagement take place in a far wider landscape of knowledge and knowledge-making, however, and in this light the last part of the chapter considers roles for researchers, public intellectuals and the media in seeking out and supporting pathways to sustainability.

### Influencing policy processes<sup>10</sup>

Understanding what policies are and how policies change is an important first step for influencing them. For a term so commonly taken for granted, 'policy' is a remarkably slippery one – it has been suggested that 'policy is rather like an elephant: you know it when you see it, but you cannot easily define it' (Cunningham, 1963, in Keeley and Scoones, 2003). But if putting one's finger on what constitutes policy is difficult, then assessing why particular policies take the shape they do – and working out what can be done to change them – is often an even more daunting challenge. Some have gone as far as to say that 'the whole life of policy is a chaos of purposes and accidents. It is not at all a matter of the rational implementation of so-called decisions through selected strategies' (Clay and Schaffer, 1984, p192).

Being a policymaker does not necessarily make the task of understanding policy any easier. Indeed, one policymaker working in a rural development setting in Africa commented on the often confused and complex nature of policy:<sup>11</sup> 'I thought all I had to do was explain the science and all would change – I was wrong.' As another put it: 'Policy says something, and implementation on the ground is something else. How do you reconcile these? And another argued: 'There are so many interests around policy. It's like moving a big wheel. It's a long struggle.'

In exploring policy processes with a view to enabling pathways to sustainability, a series of questions arise: Why is it that particular narratives

about the nature and causes of problems stick with such tenacity in policy debates? How do particular perspectives and the interests they represent find their way into policy? How might policy processes be changed to encourage a greater inclusion of otherwise excluded voices?

There is a need for a sceptical step away from the assumption that research is a neutral and objective exercise in gathering 'correct' evidence that will make a positive difference – in other words, what ought to be done and how to do it. Instead, as we have argued earlier in this book, the process of gathering knowledge to inform – and evidence for – policy (which we call appraisal) is less the result of a pure and rational quest for what is technically correct (where the task is to develop more refined tools to provide 'better' information, which leads to better policy). Instead, it is more about the establishment of 'facts' within particular networks, and in relation to particular framings of the problem and sustainability goals. It is thus the reach and influence of such networks, and their stability or capacity to shape what goes on in mainstream institutions, nationally and internationally, that is key.

### Understanding policy – the conventional view

The traditional and highly stylized model of policymaking views it as a linear process in which rational decisions are taken by those with authority and responsibility for a particular policy area (Simon, 1957). This model assumes that policymakers approach the issues rationally, going through each logical stage of the process and carefully considering all relevant information. If policies do not achieve what they are intended to achieve, blame is often not laid on the policy itself but on political or managerial failure in implementing it (Juma and Clarke, 1995) – through a lack of political will, poor management or shortage of resources, for example.

It is also assumed that there is a clear separation between fact (identified through a rational approach based on evidence, science and objective knowledge) and value (seen as a separate issue, dealt with in the political process). Policymaking is thus seen as a purely bureaucratic or administrative exercise (Jenkins, 1978; Hogwood and Gunn, 1984; Weber, 1991). If politics enter the fray, it is around decision-making (in the realm of value); implementation is an entirely technical procedure (in the realm of facts). The role of experts is seen as critical to the process of making rational decisions, and scientific expertise is presumed to be independent and objective. The familiar refrain is that of 'evidence-based policy', or policy rooted in sound science.

While many would disregard this as a caricature – which it undoubtedly is – the underlying assumptions are remarkably pervasive, and this linear

model remains a prevalent mindset – particularly in development practice. However, research on policy processes shows it to be an inadequate reflection of reality (Keeley and Scoones, 2003).

### What are policy processes?

To understand and influence policy processes towards pathways to sustainability we need to cast aside this linear, rational policy model. Instead, policy needs to be understood as a more complex and messy process involving a multiplicity of actors, with several key characteristics. These features of the policy process echo arguments we have made in earlier chapters when discussing governance, politics, institutions and decision-making more broadly (Chapters 3 and 4).

First, policymaking must be understood as a political process as much as an analytical or problem-solving one. The policymaking process is by no means the purely technical, rational activity that it is often held up to be. Second, policymaking is incremental, complex and messy, a process of 'disjointed incrementalism or muddling through' (Lindblom, 1959; see also Etzioni, 1967; Smith and Porter, 1981). This suggests a more 'bottom-up' view of policy (Hjern and Porter, 1981), whereby the agency of different actors across multiple 'interfaces' is emphasized (Long and Long, 1992). An understanding of practitioners and their day-to-day dealings with policy issues is therefore key (see Schön, 1983; Mosse, 2005). Third, implementation involves discretion and negotiation by front-line workers (giving staff more scope for innovation than they are often credited with). Thus Lipsky (1980) makes clear that so-called street-level bureaucrats – or field-level ones, such as health workers or agricultural extension agents – may exercise considerable agency in the policy process. They prioritize, interpret instructions, deal with overlapping and contradictory directives, and sometimes even take the initiative in high-profile policy change (see Joshi, 1997).

Third, there are always overlapping and competing agendas; there may not be complete agreement among people over what the really important policy problem is. Different actors will always bring different framings and narratives to bear (Chapter 3), so policy processes always involve a degree of argumentation, even if this remains implicit (Fischer and Forester, 1993; Hajer, 1995). Fourth, decisions are not discrete and technical: facts and values are intertwined. Value judgements play a major role (Fischer, 1990). Fifth, technical experts and policymakers 'mutually construct' policy (Shackley and Wynne, 1995). This means that scientists contribute to the framing of policy issues by defining what evidence can contribute to the framing of policy issues. And those working in policy also

for investigation – jointly negotiating what questions need to be answered and what knowledge can be provided to answer them. And finally, the co-production of science and policy (Barnes and Edge, 1982; Jasanoff and Wynne, 1997; Jasanoff, 2004) often acts to play down scientific uncertainties and ignorance, as scientists attempt to satisfy the demand for answers from policymakers (Wynne, 1992). Thus, as we discussed in Chapter 4, plural and partial debates often become recast as singular, closed and certain.

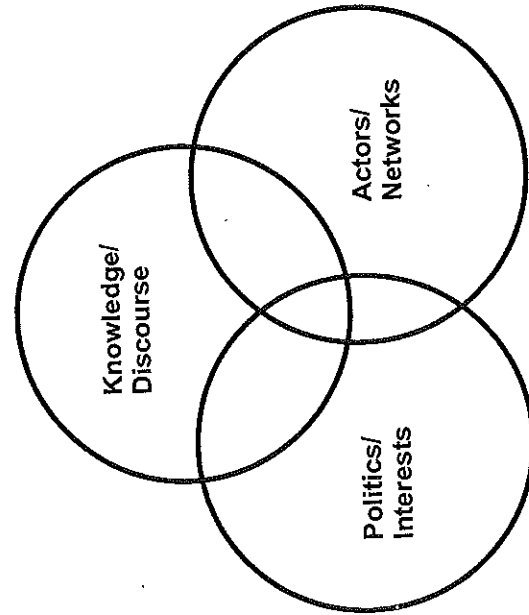
The study of policy processes therefore involves understanding the mechanics of decision-making and implementation. Just as important, as we discussed in Chapter 3, it requires an understanding of more complex underlying practices of system framing – the way boundaries are drawn around problems, how policy problems are defined and what is included and excluded.

There is of course an extensive literature on the policy process. Summarized in the briefest possible terms, this reveals three broad approaches to understanding policymaking. One emphasizes political economy and the interactions of state and civil society, and different interest groups (Grindle and Thomas, 1991; Hill, 1997). Another examines the histories and practices linked to shifting discourses and how these shape and guide policy problems and courses of action (Hajer, 1995; Athorpe and Gasper, 1996; Grillo, 1997; Shore and Wright, 1997). The third gives primacy to the roles and agency (or capacity to make a difference) of individual actors (Giddens, 1984; Haas, 1992; Hempel, 1996; Long, 2001). These different ways of understanding the policy process echo and overlap with different traditions and literatures for understanding governance (Chapter 4).

Bringing these different perspectives together, three lenses on the policy process are suggested (Figure 6.1). These prompt a series of questions:

- Knowledge and discourse: What is the 'policy narrative'?
- Actors and networks: Who is involved and how they are connected?
- Politics and interests: What are the underlying power dynamics?

Understanding policy processes, as Keeley and Scoones (2003) suggest, requires looking through all three lenses together – at the intersection of the three overlapping perspectives. Thus, to understand why policies take particular shapes, it is necessary to understand not only the framing of issues – the narratives that tell the policy stories – but also the way policy positions become embedded in networks (of actors, funding, professional and other relationships, and particular institutions and organizations), and the enabling or constraining power dynamics.



Source: After Keeley and Scoones, 2003

**Figure 6.1** Three lenses on the policy process

Stories about policy change almost all have a beginning, a middle and an end. They describe events, or define the world in certain ways, and so shape policy decisions. As we saw in Chapter 3 and have explored through the cases of water in dryland India, seeds in Africa, epidemics and climate and energy systems, such 'policy narratives' provide both a diagnosis and a set of measures and interventions. They define a problem, explain how it comes about and show what needs to be done to avert disaster or bring about a happy ending: in other words, what is wrong and how it must be put right (see Roe, 1991, 1994). Policy narratives often gain validity despite (or even because of) the fact that they frequently simplify complex issues and processes. This simplification is seductive in that it sidesteps fuzziness and suggests a programme of action. This is what makes simple narratives appealing to politicians or managers – sweeping people along. Some narratives gain more authority, persisting at the expense of others, and hence have more bearing on policy decisions. Yet these will often be contested by alternative policy narratives that frame problems and solutions in different ways.

Policy narratives can stick with great tenacity, despite contrary perspectives and practices. This is true of the mainstream narratives we have explored in our case studies, as well as in other arenas – for instance around environment and development issues in Africa (Roe, 1994; Leach and Mearns, 1996). Why is this? Most obviously, they suit certain political

interests. Simple, singular narratives are easily communicated, make for good sound-bite political marketing, and fit well with large-scale bureaucratic organizations' demands for clarity and measurable manageability. They also fit well with the practices of mass-media and education, which, as we discuss later in this chapter, perpetuate particular narratives and embed them in wider society and popular culture. The storylines and metaphors are so taken for granted that they limit thinking about particular areas – this becomes the way things are thought about over time. Single, dominant narratives – associated with particular pathways – reduce the 'room for manoeuvre' or 'policy space' of policymakers (Cobb and Elder, 1972; Kingdon, 1995) – that is, their ability to think about alternatives or different approaches. These become embedded in particular institutional structures, bureaucracies or actor networks. They become normalized – part of people's everyday practices, and so perpetuated and reinforced through them – from bureaucratic routines to institutional patterns.

Networks, coalitions and alliances of actors (both individuals and institutions) with a shared vision – similar belief systems, codes of conduct and established patterns of behaviour – are important in spreading and maintaining narratives through chains of persuasion and influence such as journals, conferences, education or informal introductions. Through these networks 'norms of good and bad practice are reinforced, research agendas are set, and orthodoxies or conventional wisdoms are reiterated and, very often, dissenting opinions or unconventional views are suppressed' (Keeley and Scoones, 1999, p20).

In any given policy domain, and given the complexity of the contemporary networked governance arrangements we described in Chapter 4, actor networks are not exclusively confined to state institutions. Rather, they link up parts of the bureaucracy and government with the private sector, donors and actors in civil society – such as journalists, researchers and NGOs. Thus the existence of actor networks can make for highly pluralist styles of policymaking involving a range of different stakeholders or actors, often across local and global scales. Processes of negotiating and bargaining between competing interest groups are central to policymaking. Policies rise and fall in prominence as a result of the changing effectiveness of different networks of actors in the debate. Networks can gradually change narratives as well as reinforce them – as they bring people together who exchange ideas and strategize.

Perhaps it seems obvious that policy is inherently political and contested. But the conventional view of policy, in which fact and value are separated, denies this. Indeed, summing up from the discussion above and looking back to Chapter 4, it should be clear that politics shape policy processes in several important ways. First, the political context is moulded by the

interests of particular regime authorities to remain in power. Competition also exists between groups in society, based on their differing interests with regard to allocation of resources, for example, or social concerns. Second, the policy process is influenced by a range of interest groups that exert power and authority over policymaking. These influences affect each stage of the process, from agenda-setting, to the identification of alternatives, weighing up the options, choosing the most favourable and implementing it. The vested interests of various actors in policy – government agents, officials of donor organizations and independent ‘experts’ – might be served by the perpetuation of certain narratives. Third, policy is often set out as objective, neutral and value-free, and is often phrased in legal or scientific language. In this way, the political nature of the policy is hidden by the use of technical language, which emphasizes rationality and objectivity. But the technical is always in some way political. Finally, bureaucrats are not simply neutral executors of policy; they have their own personal and political agendas to negotiate. Bureaucratic politics, such as battles within ministries for control over policy arenas, are therefore relevant.

### Effecting policy change

Policies often have a certain inertia: particular ideas and practices stick, despite concerted challenges to their basic concepts and implied ways of working. If actor networks are tightly formed and impenetrable, and contexts and circumstances are not conducive to change, no amount of rational argument will shift a dominant policy narrative. However, things do change once distinct and well-guarded policy positions begin to fall apart, chinks and spaces open up and other arguments become incorporated, softening the stance and, through this process, enlarging the associated actor network. But by what strategies can this be catalyzed? How would one set about creating opportunities for challenging existing policy and opening debate in order to define alternative pathways to sustainability? Here we outline five practical means which might be used to assist this.

#### *Telling persuasive stories*

Clearly there is often a need to challenge entrenched policy stories and their underlying assumptions. But it is not enough simply to critique the status quo and the conventional wisdoms of the mainstream. In order to effect change, opening up new pathways to sustainability, alternative storylines must be offered – developing pragmatic, clear and simple policy stories that challenge dominant policy positions, suggesting, in turn, alternative policies and institutional structures (Wolmer and Scoones, 2005).

It may appear to go against the grain to challenge one simple storyline with another. After all, one could argue, the simplifications of policy narratives are part of the problem, when what we need is better ways to understand and respond to the complexity and diversity of the real world. Yet ‘strategic simplifications’ are warranted and justified when one is clear about the contexts and goals of their use. Moreover, alternative storylines can be developed which combine clarity and persuasion with recognition of diversity. In the case of water in India, for example, a mainstream narrative that ‘water scarcity needs to be addressed through a large dam’ might be challenged through alternative, simple storylines of a number of kinds, depending on the particular goal and context. ‘Irrigation water will benefit only large farmers; smallholders need alternative water harvesting technologies’; or ‘women’s concerns are with the scarcity of drinking water, requiring investment in domestic water supplies’ are examples of simple storylines supporting the goals of particular groups. Or these might be combined with an appreciation of complex dynamics and diversity, in a storyline such as: ‘Scarcities are multiple, and adapting to uncertainties must be central – we need diverse practices and technologies suited to local settings.’

#### *Building networks and encouraging champions of change*

It is one thing to come up with an effective story, but convincing others that this is the idea to back – especially if it means abandoning other ideas, supported by powerful players – is a more challenging task. This means understanding where the power lies – knowing which actors and institutions are important, both governmental and non-governmental, public and private – understanding the jostling of positions and interests at the global, national and local levels, and tracing the connections between them. With this knowledge it is much easier to target the right people in the right places at the right time.

Building and linking networks is a key part of policy change – particularly linking very local networks to broader coalitions operating at national, continental and international levels. New ideas gain purchase when there is strong backing or where obstacles (in the shape of existing networks) are circumvented. Without support and advocacy, even brilliant new ideas or approaches may sink without trace. For instance, in relation to introducing adaptive governance approaches, Olsson et al (2006) identify the importance of informal, ‘shadow networks’, whose coordinated efforts to develop alternatives, build the case for adaptive governance and identify and exploit political opportunities are seen as essential.

*Encouraging reflexivity*

As an African policymaker working in rural development put it: 'We've seen government policy change, but it is slow. Seeing things on the ground helps change policy.'<sup>12</sup> 'Seeing is believing' is a powerful route to changing policy. Field days, demonstrations and exposure visits are time-honoured means of enrolling actors into networks and opening up the perspectives of senior officials to alternative realities.

Reflections emerge most effectively when people are exposed to others' views and lived experience, across hierarchies, between institutions and away from the capital city office to the urban neighbourhoods, villages and fields where poorer people create their livelihoods. A senior official who took part in the World Bank's Grass Roots Immersion Programme (GRIP) in India explained how:

*Witnessing the life of a family that has no assurance that it can survive until the next harvest, going to bed at 8pm because there is no light and nothing else to do and talking with parents and children who have no expectations that the government will improve their lives had a remarkable effect on me (IDS, 2004).*

Such experiences can help to shift the worldview of senior policymakers and, at their best, help fold poor people's perspectives into policy and practice at the highest level.

Critical reflection can also focus on the policy process itself. This is a luxury few policymakers have the time to enjoy. Policymakers find tidy, closed stories and certainties easier to deal with than messy, plural and partial scenarios with multiple and contested perspectives. Yet despite, or perhaps because of this, an understanding of the nuances of policy processes can potentially provide valuable insights – an opportunity for reflexive learning. This was certainly the case for a group of African agricultural policymakers who, given the space in a workshop setting to reflect on the networks, discourses and political interests that they encountered, appreciated the opportunity to think about their own work and strategies in new ways (Scoones and Wolmer, 2005).

*Opportunism, flexibility and adaptive governance*

While the best-laid plans often go wrong, sometimes new, wholly unexpected opportunities arise and spontaneous, seemingly unconnected actions or groups come together. Opportunism and serendipity are thus key aspects of any strategy. They are difficult to fit into fixed, formal plans or log-frames, administrators often are fearful of such apparent randomness and donors are often reluctant to play along. Yet alongside long-planned

and well-prepared events and processes, effective leveraging of policy change demands an aptitude for seizing particular policy moments or windows of opportunity as they arise, to get policy messages on the agenda and to open up the argument for policy reform. Such opportunities may be triggered by acknowledged 'crises' in the management of a particular issue. In the health arena, for example, this was the case when the Global Polio Eradication Initiative was derailed by resistance from northern Nigerian states in 2003, forcing donors and government agencies to rethink their approach radically (Yahya, 2006; Leach and Fairhead, 2007). Opportunities may also be triggered by wider political transitions and changes; for instance an election which brings in a change of government.

Such moments can also be important for introducing new governance approaches, such as those better attuned to the dynamics of complex systems. For instance, Olsson et al (2006) identify three basic phases for moves towards adaptive governance. The first phase is preparatory and involves the perception among key constituencies that the system is 'in trouble' and needs some form of change in approach to its 'management'. These stress or crisis situations open up windows of opportunity for the second phase, which is the 'transition to a new social context for ecosystem management', namely adaptive governance (Olsson et al, 2006, p3). It helps if advocates of new, adaptive governance measures have a portfolio of projects primed and ready to take advantage of opportunities when these occur. This is a highly unpredictable dynamic, but when some purchase for adaptive governance is realized, then the third phase institutionalizes the new approach.

Ideas about how adaptive governance might arise are inspired by work on 'policy entrepreneurs' and 'political windows' (Kingdon, 1995). This emphasizes the importance of timing and wider conditions to enable the initiation of adaptive governance (as an alternative to established approaches and routines), as well as the role of building supportive 'social capital' to take it forward.

*Building new skills and professionals*

Faced with complex, dynamic policy challenges, many professionals in policy positions are not necessarily equipped with the skills and insights necessary. They may have been trained in different, less relevant areas or narrow technical or administrative disciplines and are expected to learn how to 'do policy' on the job. Yet what is needed is investment in a new generation of sustainability professionals who are committed to and rewarded for cutting across a number of key boundaries.

A first important boundary is between the natural and social sciences, where skills are needed which facilitate an understanding of complex socio-ecological and technical systems in ways that do justice to the underlying

## Creating and using policy spaces

The concept of 'policy space' (Cobb and Elder, 1972; Kingdon, 1995) relates to the extent to which those involved in the policy process are restricted by forces such as the opinions of a dominant actor network or narrative. For instance, if there are strong pressures to adopt a particular strategy, a decision-maker may not have much room to consider a wider set of options. On the other hand, there may be times when an individual has a substantial amount of leverage over the process and is able to assert his or her own preferences and significantly mould the way policy choices are considered.

Understanding policy processes through an examination of knowledge/discourses, actors/networks and politics/interests (Figure 6.1) can help with identifying policy spaces. For example, the articulation of alternative narratives is possible where there is a weakness in the articulation of the dominant narrative. This in turn requires the identification of spaces within networks (spaces to join the network or key actors who can be enrolled into an alternative network). A clearer assessment of strategies for changing and influencing policy can then be achieved by looking at such policy spaces, where they lie and what they consist of. Depending on the policy issue, there may be important interactions between such spaces – from the very local to the regional, national and global, while a number of different types of policy space are evident. Table 6.1 illustrates a range of types of policy space, together with suggested strategies for opening them up – as identified by African agricultural policymakers during a workshop in Kenya.<sup>13</sup>

While certainly nonlinear, policy processes are clearly not simply chaotic and governed by chance and accident. An analysis of the policy process highlights the complex interplay of narratives underpinning the policy, the actor networks promoting or resisting it and the political interests driving the process and opening up potential strategies and tactics. An understanding of the politics, bureaucracy, power and interests behind policies gives clues as to how their formulation and implementation are open to interpretation and manoeuvre; of where the openings might lie and of how these might be enlarged.

Opening alternative pathways to sustainability need not just involve formal policy processes and spaces. As Table 6.1 has already identified, there are roles for citizen mobilization in creating 'popular spaces' where alternatives are imagined and created, and through which pressure may be exerted on wider politics and institutions. In the following section, we turn to consider these processes in greater detail.

dynamics and issues of uncertainty and surprise. This might come about through formal training – a variety of degree and diploma programmes now offer professionals and practitioners the opportunity to cross disciplinary boundaries – or through learning networks of other kinds. The Institutional Learning and Change initiative of the international agricultural research centres exemplifies one attempt to enable scientists to reflect on and challenge their own professional and disciplinary biases and to learn from interdisciplinary practice (Watts et al, 2003). Notably, this initiative has continually faced threat and marginalization – undermining the difficulties, yet also the importance, of bringing challenges to conventional disciplinary and professional hierarchies and reward systems.

A second boundary that needs to be crossed is between the assumed linear and rational policy process and the more messy and complex realities through which narratives, actor networks and political interests interact. Seeking ways that diverse perspectives, particularly those of poorer and marginalized people, can be articulated in policy processes is a key challenge, for which new skills in understanding policy processes and facilitating policy change are needed.

A third boundary exists between local-level reactive micro operations, drawing on specific events and single cases and on experiential and tacit knowledge – including the knowledge and experiences of field-level bureaucrats and front-line workers – and macro design, drawing on aggregative understandings and formal, deductive principles. To be able to respond to uncertainty and surprise and ensure 'high reliability' amidst complex dynamics requires a tacking between these. Carving out a middle ground, new professional skills need to link localized scenario development, based on particular cases and events, with wider pattern recognition – leading to the ability to anticipate and respond appropriately (Schulman and Roe, 2008).

In building such new sustainability professionals, there are roles both for formal processes – trainings, workshops, learning initiatives – and less formal ones, involving learning-by-doing in flexible institutional contexts where boundary-crossing is encouraged. Recognizing and validating new skills in turn requires broader notions of what constitutes 'capacity' and 'excellence' (Chataway et al, 2007; Waldman and Leach, 2009) and appreciation of these in incentives, rewards and institutional arrangements.

Thus these five routes to opening up policy debates about diverse pathways to sustainability offer some practical starting points for building sustainable futures. Each of these approaches to effecting policy change may take place across a diversity of policy spaces, a subject to which we now turn.



the cause of AIDS (Natrass, 2007). TAC cut through this debate with a campaign centred on the perspectives and immediate concerns of poor and unemployed black women and men, many of whom were HIV positive and desperate for drugs for themselves and their children. Drawing on activist styles, symbols and songs from the earlier struggle against apartheid, TAC's mobilization spread through schools, factories, community centres, churches, shabeens (drinking dens) and door-to-door visits in the townships. TAC also engaged with scientists, the media, the legal system, NGOs and government, using sophisticated networking channels that crossed race, class, occupational and educational lines, and extended internationally in what has been dubbed 'grass-roots globalization'. By focusing on moral imperatives, TAC successfully forced drug companies to bring their prices down and it persuaded the Ministry of Health to make anti-retroviral drugs more widely available. TAC's mobilization was a struggle for poor people to gain access to life-saving drugs – opening up a particular treatment pathway – but it was also a campaign to assert the rights of citizens to scientific knowledge, treatment information and the latest research findings.

The case of water in India has also generated many examples of activism and mobilization. Large dams and river-linking systems, undertaken by government with international backing as large-scale technological 'solutions' to assumed problems of water scarcity, have long been a focus of mobilization and protest. One of the longest-running anti-dam movements is the Sardar Sarovar (Narmada) movement, which has opposed the government/World Bank project to dam the Narmada river (Fisher, 1995; Pate, 2002; Mehta, 2005). With the leadership of NGOs and spokespeople, and through local meetings, demonstrations and campaigns on the global stage, the Narmada movement has given voice to citizens' concerns. These include the loss of forest-based livelihoods and cultural values centred on the river implied by flooding upstream of the dam; whether the dam will really help downstream issues of water uncertainty as lived and experienced by local farmers and pastoralists; and concerns about the elite, industrial and political interests that are perceived to drive large dam approaches. Linking up with similar movements across the world, the Narmada mobilization has helped to broaden out debate and open up governance, provoking a wave of questioning around the appropriateness of large-scale engineering technologies versus alternative approaches to addressing water issues that are better attuned to local ecological and social perspectives. In more recent years, however, while the life and death struggle for villagers faced with submergence by the Narmada dam continues, the anti-dam struggle has lost much of its high profile. Mobilization and protest around water in India, as elsewhere, has come to focus more on the spectre of large-scale privatization of water management regimes; another blanket, singular

Table 6.1 Policy spaces – and strategies for opening them up

Policy space	Strategies for opening up
Conceptual spaces (where new ideas are introduced into the debate and circulated through various media)	Publish papers on proposed policy in scientific journals Quote other important, influential people Influence consultants 'after hours' Learn the 'official language' and use it Lobby peers and key players Select an internal champion Get the boss to relay new ideas and to get praise for it
Bureaucratic spaces (formal policymaking spaces within the government bureaucracy/legal system, led by government civil servants with selected input from external experts)	Gatecrash other people's meetings and hijack agenda Influence/write opening speech Show videos in workshop to introduce stakeholders' opinions Get official blessing – write the speech
Invited spaces (consultations on policy led by government agencies, involving selective participation of stakeholders)	Join change agent/direct action movements and actively get involved Petition Participate in membership organizations, e.g. farmers' or patients' groups Use the media: radio, TV, posters
Popular spaces (protests (demonstrations led by social movements, putting pressure on formal policymaking)	Pilot project Case studies Study tours
Practical spaces (providing opportunities for 'witnessing' by policymakers)	

### Mobilizing citizens<sup>14</sup>

A second route towards the opening up of governance processes concerns citizen action and mobilization. Social movements and citizens' groups can help to prize open the cracks in policy processes and in standardized ways of doing things. They can push for particular perspectives and interests, redefining ideas about and pathways to sustainability.

Let us look at a couple of examples from our case studies. One well-known example from the health arena and concerning the AIDS pandemic is the successful mobilization by the Treatment Action Campaign (TAC) in South Africa. This grassroots organization successfully fought through linked local and global networks to gain access to antiretroviral drugs for working class and poor people, taking on the global pharmaceutical industry and international patenting laws (Robins, 2005a,b). In 2001, the country was in the midst of an HIV/AIDS epidemic but also a raging controversy within South Africa's scientific and political establishments over whether HIV was

involves the construction of particular ideas, meanings and cognitive and moral constructions of a 'problem' (Benford and Snow, 2000). They include perspectives on movement identity, focusing on the processes and sources through which common identities and subjectivities are formed, and perhaps dissolved and reformed, through movement processes and the 'politics of presence' (Young, 1990; Phillips, 1995). And they include appreciation of the spatial location and contexts of movements as critical to why they unfold as they do (Miller, 2000). Movements may link participants in diverse local sites across global spaces, constituting what has been called 'globalization from below' (Appadurai, 2002).

All this points towards an understanding of 'mobilizing citizens' as knowledgeable actors engaged in a dynamic, networked politics. This involves shifting and temporary forms of social solidarity and identification, through processes that are sometimes local or national but sometimes involve networks that span local sites across the world (Leach and Scoones, 2007). In a world increasingly influenced by the dispersing and fragmented effects of globalization, and in the context of multi-levelled, networked politics (Chapter 4), there is a need to go beyond either state-centred or pluralist accounts of citizenship. People clearly have multiple memberships of different groupings, both in institutional and cultural terms. Such a multiplication of identities, affiliations and forms of solidarity, Ellison (1997) argues, requires the dissolving of more conventional boundaries between the public and private, the political and social, thus situating citizen mobilization in relation to – and as part of – governance in new ways.

Such an approach to citizen engagement in turn challenges mainstream ideas of 'the citizen'. Dominant narratives about problems concerning agriculture, water, health or energy often include and promote particular views of people which either deny their agency and citizenship, or construct this in particular ways. Thus narratives underpinned by the politics of liberal modernization, see citizens as passive beneficiaries of plans developed with formal scientific expertise and implemented through public sector institutions and global funds. In another version of the liberal view, gaining growing currency, citizens are seen as consumers of science and technology and its products, driven by market-led growth. Citizens are assumed to follow the market, while the liberal state provides a regulatory function which protects their safety. In contrast to both these views, we suggest that a more active version of citizenship is needed, in which citizens are understood as knowledgeable actors, engaging through various forms of social solidarity and identification in networked politics around issues of concern (Leach and Scoones, 2007).

These forms of engagement, involving new processes of social and political mobilization, are, as Ellison emphasizes, 'increasingly messy and

solution to so-called problems of scarcity which threatens to ride roughshod over the rights and concerns of marginalized people in dryland areas.

As we saw in Chapter 5, much debate has focused on institutionally orchestrated forms of participation in appraisal. As discussed, there has been an explosion of efforts to involve citizens in policy and decision-making, ranging from classic consultations to more innovative forms such as citizens' juries and participatory appraisal. However, as these examples highlight, many instances of citizen engagement take place outside such institutionally orchestrated spaces, through more spontaneous forms of mobilization. These have been the subject of extensive scholarship on social movements, whether around classic struggles for material resources and political power (so-called old social movements; e.g. Olsen, 1965; Oberschall, 1973; Tilly, 1978) or around emergent issue or identity-focused struggles (so-called new social movements; e.g. Melucci, 1985, 1989; Offe, 1985; Touraine, 1985). The importance and roles of social movements and citizen engagement in environmental, health and energy politics is now well recognized and the subject of a large literature (Fischer, 2000; Jamison, 2001; Peet and Watts, 2004).

As discussed in Chapter 4, citizen mobilization can be seen as part of the complex, multi-levelled networked processes that characterize so much governance and politics today. Yet citizen mobilization, we argue, also has particular roles to play in challenging and opening up other parts of these networked interactions, towards achieving greater recognition and support for alternative narratives and pathways to sustainability and for otherwise marginalized perspectives and goals.

Key questions thus arise both in understanding such mobilization and assessing its potential and means to open up governance processes around particular issues and settings. Who mobilizes and who does not, and why? What are the patterns of experience, profiles and identities of activists? How are activist networks constituted and what diverse forms do they take? What forms of identity, representation and processes of inclusion and exclusion are involved? What forms of knowledge – including values, perceptions and experiences – frame these public engagements and movements? Within what spaces do debates take place and what resources are drawn upon? How do citizens and 'experts' of various kinds interact in processes of mobilization?

Understanding the politics of mobilization for sustainability, we suggest, requires a combination of perspectives drawn from the wide and highly diverse literatures on social movements. These include perspectives which emphasize the resources available to movements and the mobilization of these within political processes (Tilly, 1978; Tarrow, 1998). They include a focus on how mobilization takes shape around and actively

expert to validate their political stance; by rejecting the scientific way of knowing and advancing their claims to expertise from some wholly different epistemological standpoint; or by attempting to 'stake out some ground on the scientists' own terrain' by questioning 'not just the uses of science, not just the control over science, but sometimes even the very contents of science and the processes by which it is produced' (Epstein, 1996, pp12-13). Our cases offer examples of each of these. In the case of mobilization around GM crops, activists in South Africa (Scooness, 2005) used all these forms of engagement, deploying them strategically depending on the setting. Whereas in the courts they disputed scientific claims about GM safety, in the media they rejected scientific arguments about risk altogether in favour of a wider debate about corporate control, globalization and livelihood futures. TAC's mobilization around HIV/AIDS in South Africa was in part a response to attempts by Mbeki and the 'AIDS dissidents' to acquire a cachet of scientific authority for their political claim that there was no viral cause of AIDS. TAC drew on mainstream understandings of virology and disease causation to argue for investment in anti-retroviral treatments (see Robins, 2005c), exemplifying Epstein's fourth category of engagement.

A classic case of this opening up of knowledges by social movements is the history of nuclear power, especially in Northern settings (Smith et al, 2005). Over recent decades, the anti-nuclear movement (in the USA, Europe and Japan in particular) has exerted profound and multiple influences on the direction taken by knowledge production and innovation in and around the energy sector (Smith, 2007). Pressures began with the raising of explicitly normative concerns over associations with nuclear weapons and of ethical questions over issues such as the dumping of radioactive wastes in the global commons and contrasting exposures on the part of differently distributed communities (Flam, 1994). As the movement grew in scale and influence, attention turned increasingly to a more scientific idiom, deconstructing the many sources of uncertainty, ambiguity and ignorance in ostensibly precise expert assessments of nuclear risk and energy demands (Patterson, 1976). In the process, regulatory processes became destabilized, leading to an accumulation of additional safety requirements. This in turn exerted effects on the economic performance of nuclear power, with interlinked processes of liberalization and privatization further highlighting financial challenges. At the same time, other branches of the anti-nuclear movement were engaged in knowledge production concerning 'alternative energy' pathways – both in terms of experimental engineering (Harper, 1976; Dickson, 1977) and high-level policy analysis (Leach, 1979; Lovins, 1979). In countries such as Denmark that lacked strong nuclear interests in suppressing these incipient bodies of expertise, social movements played a

unstable' (1997, p712). Despite this, several key themes emerge. These draw attention to different dimensions of the opening up of governance processes to citizen claims and perspectives.

### Mobilizing knowledge

Contexts over knowledge are central to the dynamics of mobilization. Epstein (1996) argues that:

*Increasingly, science is the resource called on to promote consensus, and experts are brought in to 'settle' political and social controversies. Yet this 'scientisation of politics' simultaneously brings about a 'politicisation of science' ... political disputes tend to become technical disputes' (Epstein, 1996, p6).*

Our case examples illustrate this tendency for social and political disputes to become technical disputes – but also possible ways in which they might be opened up. For example in the case of seed systems in Africa, disputes about the desirability or otherwise of GM seed technologies have often been couched in terms of technical advantages and risks (Scooness, 2005; Glover, 2009). Thus, while GM advocates point to potential productivity increases, these are pitted against the dangers of genetic drift, ecological and health impacts – claims which have been at the forefront of anti-GM activism. Enwrapped with such technical claims and counter-claims, however, have often been deeper social and political claims and anxieties – for instance about corporate control over agriculture, loss of local autonomy to manage food systems, or growing inequalities between farmers more or less capable of benefiting from GM technologies. In the case of the South African HIV/AIDS controversy, the dispute over whether HIV was the cause of AIDS was often fought out in technical terms and around discussions of the relative efficacy of biomedical or 'traditional' treatments. Yet enwrapped with the stance of President Mbeki and his supporters were broader nationalistic and anti-colonial perspectives, while TAC and the many others who opposed his AIDS denialism drew on broader commitments to social justice and rights for people living with HIV (Robins, 2005c; Natrass, 2007). Thus, in both these examples, mobilizations were about broader social and political issues and claims, yet became framed in technical terms.

Epstein (1996) proposes four possible ways in which social movements might engage with science. All of these can be seen as part of routes to opening up governance (and its interlocked scientific claims). Thus movements might engage by: disputing scientific claims; by seeking to acquire a cachet of scientific authority for a political claim by finding a scientific

simple views of 'science versus people' or 'experts versus indigenous/lay knowledge'. Instead, differently constructed discourses and discourse coalitions (Hajer, 1995) emerge. Thus, in mobilization around large dams, the key opposition has been more between their proponents (embracing particular types of engineer, large-scale commercial agricultural interests and urban consumers) and the proponents of alternative, small-scale water interventions (including other hydrologists and engineers, small farmers and dam oustees). Fundamentally, in such cases different forms of knowledge alliance are linked to different social and political interests, and interact with each other in highly politicized and power-laden processes.

In some instances, citizens may successfully press knowledge claims and framings from which flow alternative pathways to sustainability. In other cases, such mobilization around knowledge may help create a more general process of opening up, leading to transformations in the ways issues are understood and debated in policy and public arenas, and thus creating space to consider a wider range of options. As Jamison suggests:

*Out of the alternative public spaces that have been created by social and political movements has emerged a new kind of scientific pluralism, in terms of organization, worldview assumptions and technical application (2001, p136).*

In the practices of science-related mobilization, both movement actors and their opponents create, consolidate and extend their claims by enrolling other actors and institutions into knowledge/power networks. Particular events and forums shape the co-production of scientific and social, political or policy positions (Jasanoff and Wynne, 1997). Thus new narratives around pathways to sustainability are created through the coming together of different actors in networks – formed as discourse coalitions or advocacy groupings. In this, citizen engagement goes well beyond just the involvement of lay publics or people at the 'grassroots'; scientists, administrators and policymakers are citizens too and may become enlisted or actively involved in processes of mobilization. This suggests a process of reflexivity, in which scientists, citizens and policy actors are explicit about their goals and commitments and their positions in knowledge politics.

### Strategies, tactics and spaces of mobilization: opening up, broadening out

There are a wide range of styles and practices of citizen mobilization and activism. These can be seen to represent particular strategies and tactics for opening up governance. Different styles and practices may be relevant for

formative role in fostering entirely new design traditions and management capacities for emerging renewable energy sources such as wind power (Garud and Kamøe, 2001). With long-run rises in energy prices and associated expectations, influenced by the changing critical expert discourse, this combination of pressures on the incumbent system and the substantiation of alternative pathways is now beginning to bear fruit. Despite continued contention between nuclear power and renewable energy – and persistently high stakes – the energy debate in states with nuclear power has been effectively transformed over the space of just two decades. Throughout the many strands of this process, a crucial role has been played by the emergence of significant new bodies of knowledge and forms of expertise fostered by social movements.

In such examples we see diverse forms of expertise at work. In some cases, mobilization draws on lay knowledge and forms of experiential expertise that people have acquired in everyday life. For instance, cultural understandings of bodily and disease processes shaped movements around HIV/AIDS in South Africa, while experiences of complex local agro-ecologies shaped opposition to GM crops. In some cases, such experiential expertise has become recast as 'citizen science' (Irwin, 1995; Fischer, 2000), in which people actively worked to produce new knowledge according with their own experiences. Thus in India, NGOs have provided communities mobilizing against dams with water-testing kits to challenge the Pollution Control Board's own monitoring data. Activists have also facilitated community surveys of malaria incidence and related this to the extent of stagnant water arising from industrial operations in the area. Such community-derived evidence has been compiled as part of 'People's Development Plans', which are presented to local assemblies and government officials.<sup>15</sup>

In many cases, citizens have enrolled accredited scientific experts sympathetic to their perspectives, forming alliances that give their claims greater strength and legitimacy (see Nelkin, 1987; Hoffman, 1989). Through these alliances, certain citizens may themselves learn new forms of scientific expertise: what Epstein terms the 'expertification of lay activists'. At the same time, accredited experts confront their institutionalized and professional knowledge, reclaiming their role as citizens. Through these processes, boundaries between citizen and expert become much more fluid and hybrids emerge. In some cases, activists themselves embody hybrid identities.

Clashes over knowledge are therefore central to mobilization dynamics. As we have seen earlier in the book, they are equally central to how different actors frame systems – and in turn define pathways to sustainability. However, cases show how the oppositions involved rarely conform to

failing to turn up and comply with expected production schedules. Such forms of mobilization and cultural avenues of protest need to be taken more seriously as expressions of public concern. These other forms suggest alternative and complementary routes to citizen engagement that could enable fuller inclusion of the range of poor people's views.

In attempts to open up debate, there is frequently a dynamic, sometimes fraught connection between a multiplicity of spaces. Spaces for mobilization range from the formal to the informal, from the invited to the spontaneously claimed or even raided, from the popular to the top-down and from the permanent to the transient (Cornwall and Schattan P. Coelho, 2006). Thus contemporary mobilizations often link more conventional forms of protest in spaces established through face-to-face encounters, sit-ins, court cases, marches and demonstrations, with more diffuse communication processes over multiple locales, including the use of both conventional mass-media and new information and communication technologies.

It is often the connection between spaces – and the ways in which they are combined and sequenced – that proves key in processes of mobilization. Thus GM activism has combined, at different times and by different groups, direct action against field trials, supermarket-trolley dumping, protests outside facilities and research institutes, constitutional and public-interest litigation cases, media campaigns on TV, newspapers and radio, Internet-linked networks and resource materials, and e-mail protests (Scoones, 2005). Activism against large dams has linked marches and demonstrations with astute media interventions, multiple court cases and engagements in international deliberations on dams, complemented by e-mail networking and website publicity and connections. TAC activists in South Africa began in the locales of black townships, making use of local political forums, but then extended their movement into global spaces through forging connections around anti-patent law struggles in the spaces of international conferences, media and Internet debate (Robins, 2005c).

Legal spaces can be seen to present particular opportunities for opening up governance processes. In these, courts and related legal processes act as mediators. Legal arenas are sometimes seen by activists as spaces where their concerns can be heard and deliberated in a neutral, objective manner, in contrast to what are perceived to be more politicized arenas elsewhere. Yet processes of framing also operate in legal spaces, with legal processes shaping which kinds of knowledge are either accepted as 'evidence' or labelled as 'biased'. Thus 'science' and 'knowledge' come to be constructed (and legitimized and de-legitimized) in particular ways when put to work as legal evidence (Jasanoff, 1997).

different issues and contexts. In some cases, contemporary mobilizations draw on longer histories and experiences, as in the example of the South African TAC activists who utilized knowledge and experiences from the anti-apartheid movement. Yet novel repertoires may also be created to provide new idioms for motivating activism or holding together collective identity. Thus in the South African case the notion of almost ritualized transformation of a person from 'near death to new life' which comes about through anti-retroviral therapies has come to unite and motivate activists in arguing for expanded treatment availability (Robins, 2005a).

Not all movement participants, however, necessarily have this common, intense shared experience. Sometimes movements involve a diverse group, with different social backgrounds, educational profiles and personal life histories. The pattern of diversity and its key axes in movement participants clearly shape different interests in pursuing a particular cause. These may create tensions, but mean that the performative and ritualized moments of commonality – in protests, demonstrations, fasts, court cases – are all the more significant. Thus at its height in the 1990s, the anti-dam movement in India drew people from all walks of life to its high-profile events and protests, including well-known individuals on the international activist circuit. Where movements are made up of socially diverse participants, the roles and charisma of individual leaders in holding them together, or at least presenting a public face of a united movement, also become more significant.

At the extreme, direct actions have been a tactic of some mobilizations. Thus protesters against GM crops have often resorted to uprooting or burning trial plots, while anti-dam protesters have lain in front of approaching bulldozers or destroyed dam foundations. In addition to the creation of new expertise discussed above, the conduct of direct action by the anti-nuclear movement has had a formative influence on international energy strategies – most notably in helping to condition an end to ocean dumping of radioactive wastes and to the domination of reprocessing strategies in nuclear infrastructures.

Yet alongside overt, extravagant performances through protest, direct actions and engagements with the courts or media, movements may engage in more everyday resistances. Perhaps especially where the resources or political opportunities for organized movements are lacking, people who feel their livelihoods or well-being threatened by technologies express their concerns in less visible ways – perhaps through irony, satire or jokes, or through the many forms of subtle resistance, foot-dragging and sabotage that James Scott termed 'weapons of the weak' (Scott, 1985, 1990). In the developing world, countless technology projects have met with opposition from local communities. Water pumps have mysteriously not been maintained or agricultural projects have found their supposed beneficiaries

the right media message is articulated in the right manner – and at the right place and time. In the case of ocean dumping of radioactive wastes in the early 1980s, for example, the weakest point in the industrial infrastructure was identified and targeted by a multi-faceted but tightly interlinked strategy – of which prominent media interventions were the most visible aspect. Efforts by organizations such as Greenpeace aimed simultaneously to: destabilize established science (concerning uncertainties in marine dispersion models); build counter-expertise (concerning environmental behaviour of radionuclides and alternative management strategies); form strategic alliances (with fishing and marine labour constituencies); and exploit international tensions (between nuclear and non-nuclear states). These were then focused specifically on developments in a particular international forum, the London Dumping Convention. When it works, this kind of media mobilization can achieve massive shifts in the momentum of a well-established global technological regime (Parmentier, 1999).

The multiple forms of contemporary media offer different spaces with different implications for movement access and framing. Even in countries with a notionally free press, this comes in many shapes and forms. Thus in some outlets, advertising revenues might be jeopardized by anti-corporate perspectives, making certain activist approaches unattractive. Some media outlets have long-established affinities with particular political interests or parties, shaping their receptivity to particular mobilizations. Some newspapers have had sympathetic journalists who take up a particular activist cause and may publicize it over several years, through a combination of headlines and detailed features. In such cases, journalists become, in effect, enrolled as movement activists. There are also important distinctions between the spaces offered by national media outlets, and local ones such as local and vernacular language newspapers, and community radio stations. In the latter, movement storylines and framings may need to be constructed differently to appeal to locally relevant concerns. The use of different media spaces by activists is, in some respects, akin to forum shopping in plural legal spaces. This also enables appeal to different audiences who might lend popular support to a movement.

Increasingly, media networks are based on Internet connections through websites, e-mail lists, blogs and so on. The degree to which mobilizations are able to make use of such cyberspaces is varied, depending not least on degrees of Internet access and connectivity. Yet even in rural Africa and India, activist leaders have used Internet networks to forge links with movements elsewhere. These cyber spaces provide many resources for mobilization, enabling movement participants to have rapid access to information and connection with each other without the need for face-to-face encounters. This has implications for movement identity, which may become broader, more diverse and inclusive – but less cohesive (Bauman, 1998).

Nor are legal spaces singular. Different routes of legal redress are available and activists may be able to exploit them strategically in a process of 'forum shopping' (von Benda-Beckman, 1981), highlighting the pluralistic nature of the legal system (Merry, 1998, 1992). In making use of different legal spaces, activists may frame movement concerns in different ways – and this can in turn lead to debate within movements themselves. In the case of the campaign for anti-retroviral treatment in South Africa, for instance, activists operated across multiple legal jurisdictions, engaging both at the international level around patent provisions and at the national level. Different types of court at a national level also offer different types of opportunity for legal argument. For example, in the case of GM seeds, constitutional courts have offered some opportunity to elaborate oppositions in terms of rights, justice and broader livelihoods, while other courts and the public interest litigation route have been more specifically focused on legally specified procedures and regulations, thus constraining the scope of claims that can be made.

Putting forward a court case is no minor task. Small activist organizations often have to link up with others to do so, while links between more diverse individualized claims may be strengthened through putting together a class action. The forms of coordinated action involved in turn shape the collective nature of movement identity in particular ways. Thus for example in the case of TAC in South Africa, engagement in court cases around patents drew the South Africa-based treatment movement into a wider collective identity associated with the anti-globalization movement (Robins, 2005a). Legal action also requires high levels of resource mobilization, not just of funds but of expertise, including legal advisors and representatives, and scientific 'expert witnesses'. Thus seeking legal redress requires movements to extend their networks, enlisting specialist expertise in mobilizations, often with attendant tensions.

Citizen mobilization can and does also make effective use of the rapidly growing variety of media spaces. As many media studies commentators have pointed out, the genre and style of media coverage tends to construct a particular kind of storyline: David versus Goliath, goodies versus baddies and so on (Lowe and Morrison, 1984; Hargreaves et al., 2002). Many social movement stories are easily presented in this mould, making them appealing subjects for media coverage. Activists can often gain access to such coverage despite their small size and limited budgets by the desire of the media to present 'two sides of the story' or 'a balanced picture' – for instance to counter dominant state or corporate interests – even though, in the process of turning mobilizations into media storylines, subtleties of their framings are often lost (Leach, 2005).

As the history of the anti-nuclear movement shows, in some – perhaps rare – instances a necessary determinant of successful radical change is that

The politics of knowledge also become mediated in different ways through cyberspace. For instance movement participants can now gain direct access to scientific research papers posted on movement websites or sent out to e-mail lists. However, such access is not unmediated: just as Monsanto and its regionally based outposts have their own websites with links to news articles and scientific papers on the benefits of GM crops, so do global anti-GM campaigners, linking to different articles that stress the risks. Perhaps the most novel dimensions of the spaces opened up through the Internet are the ways in which they connect local and global sites and forms of knowledge, giving localized movements access to global debates and information sources, and global campaigns sources of local experience and forms of legitimacy. Cyberspace also enables localized mobilizations to connect with each other, sometimes resulting in a sharing of styles and practices of activism, as well as a sharing of framings. Such globalization from below (Falk, 1993; Appadurai, 2002) can contribute to the strength and claims of local movements, although it can also reduce the specificity of localized citizens' concerns in favour of appeals to global concerns and visions.

To be most effective in opening up governance, citizen mobilization often involves moving strategically between these different spaces. Styles and tactics, as well as representations and uses of different kinds of knowledge, may be adjusted accordingly. In a world of multi-levelled governance in which context and political culture matters, the ability to shift and adapt between levels, settings and appropriate cultural styles has become a vital part of engaging effectively in the politics of sustainability.

### Conclusions: Knowledge-making and communication

This chapter has discussed a variety of contests around policy processes or struggles associated with citizen mobilization. Referring back to Figure 3.1 in Chapter 3, these contests are represented there by the ways that different system framings and associated narratives are constituted by different actors, and the politics through which these narratives and their associated pathways interplay. However, what gets opened up and what gets closed down, and how this happens, clearly does not just depend on particular policy processes and forms of citizen mobilization. It also depends on the ways that knowledge is constituted as part of society and politics. This is a much broader terrain, which – in the terms of Figure 3.1 – would constitute the enveloping background and context to the entire figure. This of course potentially includes vast areas of history, society and politics – extending well beyond the scope of this or any other single book. Nevertheless, the

ways in which processes of opening up unfold in relation to the politics of policy processes and mobilization are deeply affected by several particular themes which it is important to acknowledge here, if briefly.

Policy processes and patterns of citizen mobilization are inextricably intertwined with rapidly expanding, accelerating flows of knowledge and information. Science, policy processes and mobilization – the forms they take, and the dynamics of opening up and closing down – are part of a wider informational realm including media, education and aspects of popular culture. The significance of this extends well beyond the use of particular media spaces by social movements or policy actors, as discussed above. More broadly, this informational realm helps to shape the ways in which people construct images and imaginations of the lives and practices of others.<sup>16</sup> Such images can become interlocked with scientific and policy institutions in various ways, serving to stabilize particular narratives, embedding them in wider society. Yet media and educational practices can also provide vehicles for opening up; for exposing alternative narratives, and fractures and disagreements within more dominant views.

Several factors complicate the picture. These include more rapid information flows in all directions via the Internet, including web-postings, listserves, twitters, blogs and social networking sites. These suggest contradictory tendencies. On the one hand, there is an opening up of opportunity for people to express diverse opinions and debates. Yet on the other, we see a tendency to limit analysis and reproduce 'sound-bite' styles of narrative. On the one hand, an emergent political economy and set of institutional practices around media production is multiplying outlets around the world. But on the other, political economy limits detail and original investigation, favours a recycling of stories and interpretations and is routinely engaged in corruption and propaganda (Davies, 2008).

Media and educational materials can be powerful in establishing particular images of sustainability issues, (re)producing moral images in which certain types of person are vilified as destructive and others lauded. Aspects of genre and style, such as photogenic, picturesque or crisis stories, the use of simplified narratives and of iconic characters – heroes and villains – amplify these images (Lowe and Morrison, 1984; Chapman et al, 1997). This plays into the use of simplified narratives and story lines, and into the wider field of public debate in which people reflect on and evaluate these. Thus in many settings one finds a remarkably closed, mutually referential field of interlocked institutions and available information, which contributes further to a closing down of public debate about sustainability issues.

Yet there are also many routes through which media and education can contribute to an informational environment which encourages and enables critique and the forwarding of alternative views. Indeed a huge variety of

approaches which aim explicitly to broaden out and open up – in this sense, constituting what we term ‘empowering designs’ in this book (Chapter 5) – have been developed and advocated in diverse settings around the world. These range from approaches to participatory education and pedagogy (Freire, 1970), the transformation of educational systems and schooling (Neill, 1960; Illich, 1971, 1973), and approaches to research and learning that are embedded in action (Fals-Borda, 1986; 1987; Tandon, 2000; Reason and Bradbury, 2007) to participatory approaches to theatre (Boal, 1979; Abah, 1997; Okwori, 2005), video and other media.

All such media and educational practices must be seen in a wider context of the politics of knowledge-making in society. Research, evidence and knowledge more broadly are, as we have seen, central to the ways that policy processes and citizen mobilization play out. In asking how research might act to broaden out and open up, we need to ask – what kinds of knowledge are being generated by whom, and who is it for? Michael Burawoy (2005) suggests that there are four distinct types of knowledge-making which would answer these questions in very different ways (Figure 6.2).

One type of knowledge is for instrumental purposes, whether to inform and solve puzzles for academic audiences (professionalized knowledge-making) or to solve problems for policymakers, practitioners or groups of activists (policy knowledge-making). In recent years there has been much discussion about how to engage research more effectively with this policy

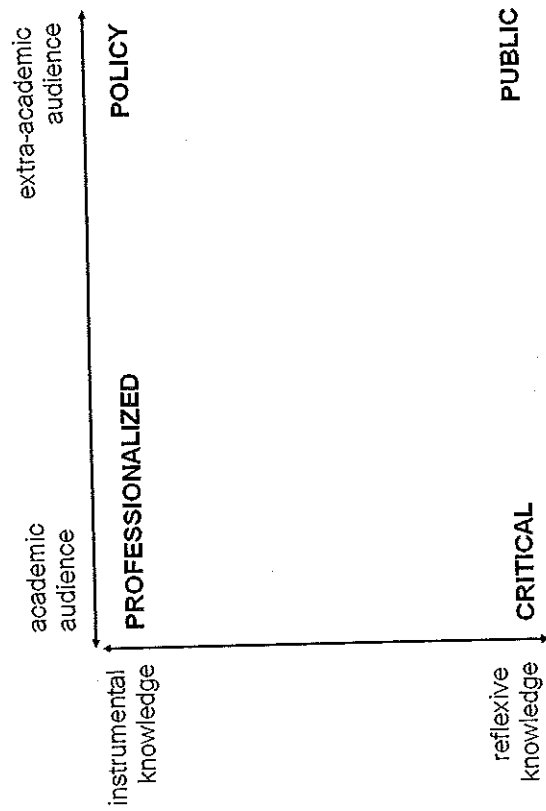


Figure 6.2 Types of knowledge-making

dimension, transferring instrumental knowledge from professional academic settings to those in which it might have influence and generate impact. These include considerable investments in information services (ID21, GDNet and others), as well as approaches for ‘getting research into use’ (Court et al, 2005; Stone and Maxwell, 2005).

Such approaches often fail to problematize questions of framing and wider challenges of subjectivity and reflexivity in knowledge-making and translation. They often slip into the trap of assuming a linear relationship between research and intervention whereby ‘evidence’ is all that is needed to inform and change policy or indeed guide activist movements. Yet as the discussion throughout this book has suggested, reflexivity and dialogue about goals and values needs to be central to all processes of knowledge-making. This points to the importance of reflexive knowledge-making which engages critically with the foundations and directions of academic research (critical knowledge-making) and articulates with the wider public sphere (public knowledge-making). The latter can include policy actors, but treats them as part of and in relation to wider society. It implies constant attention to the framings, narratives, values, implications and shortfalls, both of mainstream approaches and understandings of pathways and of alternatives.

Seen in this way, knowledge-making and communication becomes integral to wider conceptions of society and democracy. This appreciation of broader knowledge-politics needs to go hand-in-hand with the more specific processes of opening up discussed in this chapter, around policy processes and citizen mobilization.

As Sheila Jasanoff argues:

*Contemporary societies are constituted as knowledge societies... important aspects of political behaviour and action cluster around the ways in which knowledge is generated, disputed, and used to underwrite collective decisions. It is no longer possible to deal with such staple concepts of democratic theory as citizenship or deliberation or accountability without delving into their interaction with the dynamics of knowledge creation and use (2005, p6).*

In these terms, an alternative politics for sustainability is necessarily a politics of knowledge. In the next chapter, we explore what this might mean in practice for the four case studies that have run through this book.