

Conflict, Collaboration and Climate Change: Participatory Democracy and Urban Environmental Struggles in Durban, South Africa

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Abstract

The South Durban Basin on the eastern coast of South Africa is home to both a large-scale petrochemical industry and a highly mobilized residential community. In a conflict cemented by apartheid-era planning, the community's campaigns to improve local air quality provide a test case for the value of conflict for participatory democratic structures. In the context of the work of the International Panel on Climate Change (IPCC), the South Durban Basin also provides an opportunity to push the boundaries of the established links between participation and the design and implementation of responses to a changing climate. Contributing to one of the main themes of the symposium, this article argues that the focus on collaboration and compromise within studies of governance and participation overlooks both the reality of conflict and its potentially positive effects. Addressing this requires particular attention to how power relationships influence processes of governance, and the role of civil society in balancing the influence of the private sector on the state. It also calls for a better understanding of conflict and collaboration as mutually re-enforcing elements of an ongoing and dynamic political process. Together, the elements of this critique help to build a more nuanced view of participatory urban governance: one that both better describes and may better facilitate the ability of urban populations to collectively, effectively and rapidly respond to the challenges of a changing climate.

Introduction

Climate change is not what is used to be. Since the first major international climate change report 20 years ago, the study of climate change and of possible responses to it have been in a more or less constant state of expansion. Increasingly, it has been recognized that it is not only the hard science of greenhouse gas emission and climate patterns that needs to be taken into account. The socio-political and economic relationships context of emissions also requires attention. In this expansion, participatory practices have assumed a small but increasingly significant role. This article aims to extend the boundaries of the current discussion of political participation and climate change by drawing attention to three currently overlooked areas: cities, conflict and urban environmental justice.

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More than articulating a critique, this article is designed to act as a bridge. Its primary aim is to facilitate conversation between those working in climate studies and researchers and practitioners of community-based struggles over urban environmental issues. Both stand to gain from this exchange.

Cities are estimated to be responsible for between 50–75% of global greenhouse gas emissions (Satterthwaite, 2008). Dense urban populations, particularly in coastal, developing and water-stressed areas, will also be highly vulnerable to the impacts of climate change. For climate policy to be effective, there is therefore a real need for a better understanding of the existing context into which it must fit. Studies of urban environmental movements contribute an important part of this context.

From a community point of view, the effects of climate change are likely to be felt most severely by those who are already socially, economically or environmentally vulnerable. At the same time, climate change will increasingly transform the political landscape of environmental regulation. Communities will be better placed to protect their rights if they can articulate their needs and vulnerabilities in relation to this new issue, and the international structures being put in place to govern it.

To begin this conversation, we start with a brief overview of the place that participatory processes occupy in the literature on climate change. We will focus specifically on the perception of participation that emerges from the reports of the International Panel on Climate Change (IPCC). While this may be of general interest, I include it specifically for readers who do not come from a background in climate change studies. This first section also provides necessary context to explain the significance of the case study that follows.

The second half of the article focuses on community struggles in an industrial/residential basin in the South African city of Durban¹ that provides a useful site for broadening the links between participatory practice and climate change.² This case study joins a growing body of work that questions accepted definitions of 'participation'. Up until recently 'consensus' and 'compromise' have had near-sacred status within studies of participatory processes. The current discussion of participation and climate change follows a similar logic. While these are important goals, the reality of conflict also needs to be recognized. That conflict is not only unavoidable, but also a legitimate and potentially beneficial form of participation is one of the key claims in what follows. By looking at the links between urban environmental conflict and a changing climate we put ourselves just beyond what has to date been considered by most the expanding edge of research on climate change — potentially signalling a valuable direction for future investigation.

Reculer pour mieux sauter: climate change and sustainable development

Participatory processes currently exist on the expanding edge of the issues considered by the IPCC. Although discussions of participation are still at an early stage, they form part of an increasingly important exploration of the links between climate change and

1 Following a merger with its extended metropolitan area, Durban became officially known as the municipality of eThekweni. 'Durban', however, is still the name most commonly used to refer to the city, while eThekweni is used for official municipal documents. This article follows those conventions.

2 The material in this section is drawn from two months of research in the South Durban Basin and within eThekweni's municipal bureaucracy, taking the form of site visits, workshop participation, semi-structured interviews with key informants and informal conversation with community members participating in NGO-led workshops and municipally-led participatory planning exercises. This work is one facet of a larger investigation into the socio-political dynamics of municipal responses to climate change.

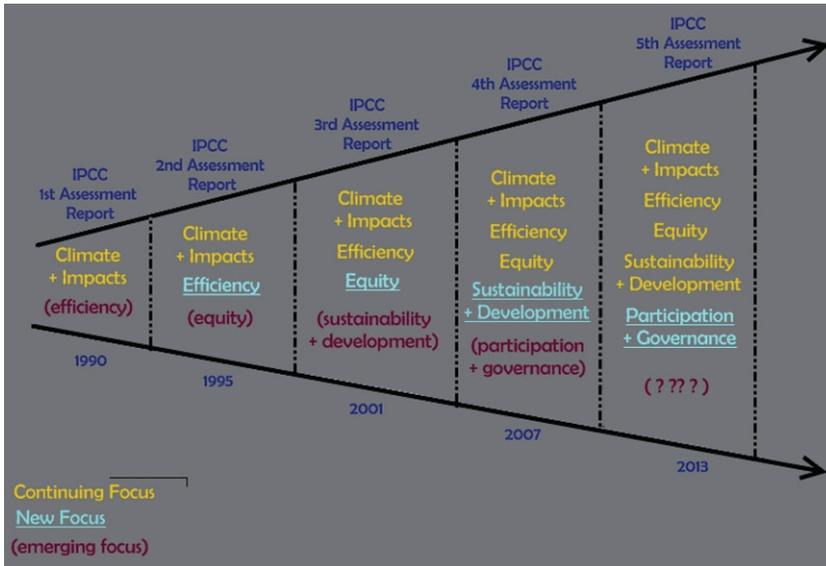


Figure 1 Evolution of the IPCC Report (source: adapted from Banuri *et al.*, 2001)

sustainable development. Since its first report in 1990, the IPCC has included steadily more research that falls outside the boundaries of strictly quantitative and natural sciences. Figure 1 provides a simplified summary of the increasing scope of the reports, moving from a narrow focus based in the quantitative sciences, to a broader package which includes qualitative work on equity, sustainability and development.³

The value of this broader approach was made clear when the IPCC released its Special Report on Emission Scenarios (SRES) in 2000 (see Figure 2). In an interesting synthesis, these new projections showed the influence of broader and more fundamental political concerns about equity, sustainability and development on computerized projections of future greenhouse gas emissions. The result was significant. The drastic differences in carbon emissions that can be seen in Figure 2 made it clear that attention to broader socio-political and economic questions could overshadow the effects of policy targeted specifically at climate change. Equity and sustainable development therefore became conceived of, not as complementary or secondary elements to a response to climate change, but as powerful, potentially overarching routes to addressing the problem.

Research on the edge

It is largely through the growing understanding of the connection between climate change and sustainable development that attention to participatory processes has found its way into the most recent IPCC Assessment Reports. Participatory practices of one sort or another are key elements in the policies of international development agencies like the

3 This was in part a response to early criticisms of the IPCC's early work that argued that the framing of climate change as a narrowly scientific issue divorced it from the unequal socio-political and economic systems which lay at the root of greenhouse gas (GHG) emissions (see Cohen *et al.*, 1998; Demeritt, 2001). (A key example of this was the fact that the projections coming out of the IPCC's early computerized climate models were built on one baseline: they assumed that current modes of social, political and economic behaviour would remain unaltered into the future. This assumption normalized the patterns which have got us into this predicament in the first place, and also effectively insulated those patterns from debate and pre-empted consideration of alternatives.)

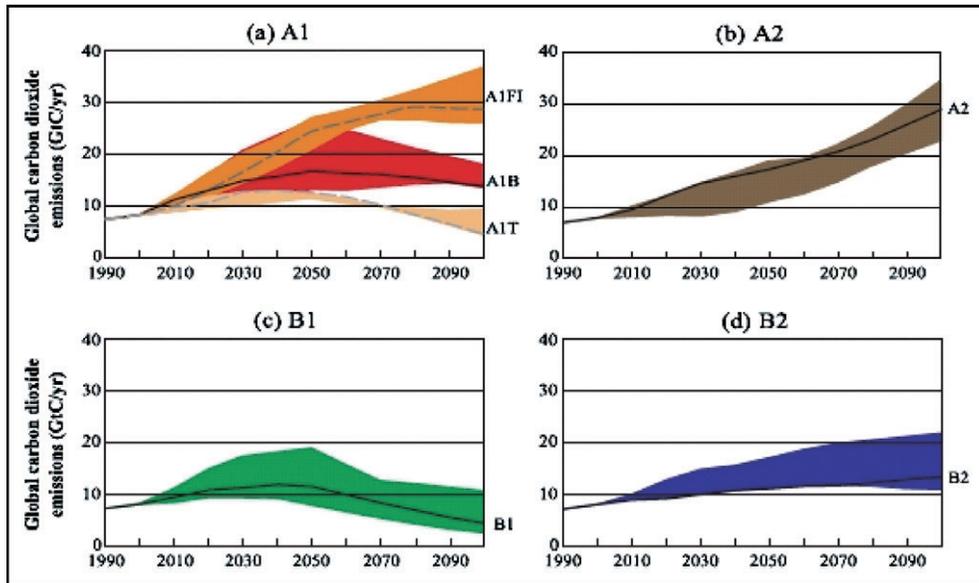


Figure 2 *Special Report on Emission Scenarios* (source: http://www.grida.no/publications/other/ipcc_sr/?src=/Climate/ipcc/emission/089.htm) © 2009 UNEP/GRID-Arendal)

United Nations Development Program, the World Bank, Oxfam, and the Organization for Economic Co-operation and Development (OECD) (OECD, 2001; Eyben, 2003; Hernández-Medina, 2010, this issue) as well as central issues to the debates in the field of development studies and environmental regulation (O'Donnell, 1993; Sabel *et al.*, 1999; Heller, 2007). As the IPCC has begun to incorporate attention to this literature, it has also started to pay attention to public participation. In this section we will examine the treatment of participatory processes in the most recent climate change Assessment Report (Assessment Report 4, or AR4, 2007) — a review of research ‘at the edge’, so to speak, of the IPCC’s expanding focus. We will then fall over the edge to look at what lies beyond this treatment, in order to set up our discussion of the case study that follows.

The reports of Working Groups 2 and 3 (WG2 and WG3, on adaptation and mitigation⁴) of the most recent Fourth Assessment Report (AR4, 2007) discuss the importance of broad participation by non-state actors in planning and implementing climate change policy. The depth of engagement is still at an early stage, and it makes up a relatively small part of the work as a whole. In the case of the report by WG2 on adaptation to climate change, participation receives the most coverage in chapter 20 (‘Perspectives on climate change and Sustainability’). Given that the discussion on participatory practices is not yet fully developed, it is necessary to complement the reading of the IPCC text with a review of the sources that the authors rely on in their discussion. This parallel reading of both the IPCC texts and the sources it relies on reveals three distinct approaches to participatory practices:

- 1 Participation as a form of *information gathering* (particularly as a component in Participatory Integrated Assessments) (see Hisschemöller *et al.*, 2001; Lemos and Morehouse, 2005; Huntington *et al.*, 2006).
- 2 Participation as a way to *link scientific and policymaking communities*, and facilitating the creation of ‘usable knowledge’ (see Haas, 2004; Lemos, 2005).

4 The IPCC Assessment Reports are made up of three sub-reports put together by three separate working groups. Working Group 1 focuses on the physical science of climate change.

- 3 Participation as a component of *decentralized natural resource regulation*, largely in rural settings and tied to development and poverty alleviation (Schneider, 1999; Adger *et al.*, 2005; Garande and Dagg, 2005; Parkins and Mitchell, 2005).

Overall the discussion revolves around a focused concern with designing better-informed policy and improving natural resource management. There is a strong emphasis on institutionalized participatory processes initiated either by government, NGOs or researchers, and little or no mention of how adapting to climate change and building adaptive capacity (Yohe, 2001) may be linked to more decentralized, informal participatory channels that may already exist in a given community.

More detailed discussions of participatory processes appear in chapter 12 of the mitigation report by WG3, 'Sustainable Development and Mitigation' (Sathaye *et al.*, 2007). In the area of mitigation, the broad based participation of government, private sector, non-governmental organizations and civil society in a loosely defined version of 'deliberative democracy' are seen as a way of pushing forward the mainstreaming of climate change within decision-making processes (*ibid.*: 693). This goal is linked to a perceived need to build partnerships between government, NGOs and businesses (with a specific emphasis on Public Private Partnerships, PPPs). These increasingly common forms of cross-sectoral partnership get particular attention because of their ability to mobilize the capacities of both the public and private sector (see, for example, Sabel *et al.*, 1999). While hopeful, the authors are generally ambivalent about these partnerships, citing both the risks of PPPs for government (particularly in the developing world), and the marginalizing and disempowering results that have emerged from experiments with cooperative models of environmental governance.

This section also makes more explicit the equation that the IPCC is making between participation and a largely unproblematic view of 'governance' or the formation of self-regulating networks between government, the private sector and civil society groups to achieve common goals (see Stoker, 1998; Sathaye *et al.*, 2007: 693). They signal the advantages of a shift away from a conception of governing focused on the power of government regulations and sanctions to enforce specific forms of behaviour. Rather than coming from one source, regulation emanates from the consensus of multiple key actors working around a given issue. In this the IPCC follows a similar logic to advocates of environmental governance more generally, like Sabel *et al.* (1999: 6), who marvel that 'in this problem-solving process, disciplined consideration of alternative policies leads protagonists to discover unanticipated solutions provisionally acceptable to all'. As Stoker (1998: 24) points out, however, there are important unanswered questions about whether these systems can be managed to enforce accountability and compliance, and if so how and by who? Taking this argument one step further, Wilson and Weltman (1999) explore how 'governance' all too often acts as an excuse for governments to abdicate their fundamental responsibilities to enact and enforce environmental regulations. We will return to these issues shortly.

Over the edge

As we have seen, the IPCC approach to participation has focused on formal institutions. This choice is justified by a pragmatic focus on economic efficiency, a managerialist approach to poverty alleviation and particular visions of consensus building as a form of social engineering. While IPCC authors are open about the limitations of the literatures that they are drawing from, the reports have not yet begun to engage with other literatures that might better prepare climate policy for the challenges that it is likely to encounter 'on the ground', and the dynamics of already existing environmental participation — not all of which are contained within formal state institutions (let alone state-led structures specifically targeting climate change). To echo the larger debates covered in this symposium, more radical and pluralist democratic practices also need to be considered (see Silver *et al.*, 2010, this issue).

Given the IPCC's current focus on consensus, it would be an easy step to conclude that confrontation is unproductive; in fact, if the main 'product' of participation is supposed to be consensus, conflict *must* by definition be unproductive. The root of this popular association between participation and consensus can be linked to Jürgen Habermas' vision of a 'communicative rationality'. For Habermas (1983: 10), argumentative speech was a 'unifying, consensus-bringing force... a "central experience" in the life of a human being'. At a broader societal level, he argues that it is this ability to create consensus through deliberation that makes social action possible (Flyvbjerg, 1998: 212). While he recognized that socio-political inequalities often exclude and disempower specific actors, he felt that properly designed institutions could ensure that true participation took place and that decisions were based on consensus not coercion.

Increasingly though, this model is being questioned. Drawing on the debate⁵ between Habermas and Michel Foucault, recent work in the field of civic participation has begun to argue that power and conflict will always infuse politics, and that it would be better to work from that understanding, rather than attempting to build ever better institutional arrangements in pursuit of the mythical moment of perfect communication and consensus. Foucault held that all exchanges were always permeated by power⁶ and that social institutions were not solutions to issues of inequality and control, but an integral part of the systems which hold inequality in place. Given this, he argued that effective political engagement needed to begin with an understanding of and resistance to unequal relationships of power and the logics that help to maintain and rationalize them (Foucault, 1981a; 1981b). This emphasis on an approach to political analysis, rather than on a specific method of political participation, means that there is no single correct approach to participation, no 'outside' to engagement.⁷

A strict reading of Habermas and Foucault creates the impression that institution building and power struggles are locked in a zero-sum game, with simplistic invocations of consensus-based governance facing off against idealistic conceptions of local-level struggle (*cf.* Sabel *et al.*, 1999 and Pithouse, 2006). But there are convincing reasons to see both conflict and collaboration as legitimate and mutually re-enforcing forms of participation. De Souza (2006: 335) argues that by participating in collaborative processes while maintaining their independence from them, social movements have an important role to play as critical (in both sense of the word) agents of urban planning. By refusing to sublimate all forms of conflict into consensus, mass mobilization and protest are an important counter-balance to the pressures that business places on government, and also help to expand the options considered by officially sanctioned debates. Meanwhile, by participating in official processes civil society groups benefit from the capacity building that results from regular participation in consistent institutionalized structures. Working in a similar vein, these are what Heller (2001: 134) describes as the 'functional synergies between institution building and mobilization'.

In the South African context Barnett and Scott (2007: 2619) argue that protest plays an important function in maintaining connections between civil society organizations and their constituents, while also 'shifting the parameters of inclusive forums and deliberative procedures'. Also in the context of South Africa, Ballard (2007) makes the case that that formal participatory structures are at least partly aimed at 'domesticating' civil society groups and marginalizing and undermining the legitimacy of groups who choose to engage more critically with local governments. This process of co-optation is

5 In some ways this debate has largely been assembled from published works by contemporary scholars and not one that took place between the two men. Although both were aware of each other's work, and had made attempts to create a forum where a real debate could take place, these plans were never carried out and were sealed shut by Foucault's death in 1984.

6 In this he is in the company of his compatriot Jacques Derrida, as well as other thinkers like Nietzsche, Machiavelli and Weber.

7 A more detailed analysis of the Foucault–Habermas debate can be found in Aylett (2010).

by now a common focus of the critique of participatory governance (see Hamel *et al.*, 2000; Mayer, 2003; Becher, 2010, this issue; Silver *et al.*, 2010, this issue). Resistance and struggle therefore become essential if community groups are to maintain the independence necessary to act as the constructive critics envisioned by de Souza. Similar arguments have emerged from empirical research into participatory processes in the United States (Becher, this issue). The case study that follows is meant to further develop this picture and to argue for a more complex understanding of participatory processes in the context of climate change.

Case study: SDCEA and the South Durban Basin

With a population of almost 3.5 million, Durban is South Africa's second-largest city. Situated on the southeast coast, it is a major player in both the regional and national economies. As well as recent event-driven development in the lead-up to the 2010 football World Cup, which Durban will help to host, the city is home to the busiest port in Africa and an industrial and chemical sector which is both the economic hub of the province of KwaZulu-Natal and the source of 8% of national GDP. It is also the home of two petrochemical refineries (the SAPREF refinery owned jointly by BP and Shell, and the Malaysian-owned ENGEN refinery) which together produce 60% of the petrol refined in South Africa. By far the majority of these activities, as well as an airport, a pulp mill and various other small industries are concentrated in a 100 km² area known as the South Durban Basin (SDB).

The SDB is the product of early industrial development and apartheid-era planning beginning in the 1950s; today, roughly 200,000 residents live in this area. The current mix of industrial and residential spaces — often literally across the street from one another — is a direct result of the city's administration during apartheid, which pioneered the practice of locating inexpensive black workers close to the industries that depended on them. There are multiple chemical emissions from the various industries, and the South Durban communities have abnormally high rates of respiratory problems, asthma, leukaemia and cancer (groundwork, 2003: 31). In terms of CO₂ emissions, industry in the basin accounts for close to 50% of the city's overall emissions of 17.8m tons per year⁸ (Environmental Management Department, 2007). The SDB is considered both a national 'pollution hot-spot' which threatens residents' constitutionally protected right to a clean and healthy environment (DEAT, 2007: 6) and a strategic site for South Africa's economic growth, particularly in the 'value added manufacturing sectors such as chemicals, plastics, metalworking, and the motor industry' (Barnett and Scott, 2007: 2614). These two classifications highlight the tense relationship between economic priorities and local and global environmental issues that are contained within the basin.

Even prior to the transition from apartheid, the conflicts built into the planning of the SDB led to an active culture of civic participation and the emergence of a number of vocal organizations advocating the rights of the inhabitants of the basin and pushing for a stricter regulation of its industries. Beginning in the early 1960s, organizations like the Merebank Residents Association (MRA) were among the first groups in South Africa to mobilize around urban environmental issues (DEAT, 2007: 9). Currently, advocacy groups in the SDB range from religious organizations to civic and ratepayers' associations (like the MRA), prominent national environmental NGOs like groundWork and Earthlife Africa, and Danish environmental conservation organization DN (Danmarks Naturfredningsforening). These groups do not act in isolation. The core of

8 This level of emissions is comparable to those of similar sized cities in North America. Vancouver, for example emits approximately 17m tons per year. Exact comparison is not possible because of the fact that North American inventories tend to include a group of greenhouse gasses, whereas Durban has only inventoried CO₂.

their efforts lies with the South Durban Community Environmental Alliance (SDCEA), an umbrella organization that unites many of these other organizations and has established a high profile over the past decade. Although the day-to-day work of the organization is done by a five-person team, the coalition as a whole is composed of 20 other local organizations (SDCEA, 2004; interview with SDCEA chairperson, Des D'Sa, 17 March 2008). This broad-based membership provides the Alliance with crucial support in terms of expertise, funding and community mobilization. It acts as the hub of a strong 'counter-public' (Hernández-Medina, this issue) that has formed in the basin to fight for stronger responses to environmental health issues.

The organization itself, and many of its key members, grew out of the struggle movement that preceded the fall of apartheid. As an organization fighting for environmental justice, they remain committed to 'taking the fight into the streets' and theatrical, at times confrontational, protests remain a core part of their approach (see also Cohen, 1993; Carnie, 2008). As you walk into their cramped offices one of the first things that grabs your attention is a photograph of Nelson Mandela with a loudhailer addressing a crowd of demonstrators. The photograph was taken during a protest in 1995: Mandela had arrived to assist in the opening ceremonies for a new expansion of the SAPREF refinery, but left having joined with the protesters' cause and set the wheels in motion for a policy requiring industries to reduce their emissions. Founded in 1996, the SDCEA grew out of this protest, and the photo serves as a reminder of the continued legitimacy and leverage which they draw from vocal protest and struggle.

But the Alliance strikes a complex balance, something that becomes clearer when you realize that around that photo a large part of the office's filing space is given over to the records kept as part of the multiple Environmental Impact Assessments (EIAs) in which the organization participates. As a 'certified' community representative under the National Environmental Management Act (NEMA), SDCEA participates in an EIA process put in place by NEMA to encourage public participation in environmental governance. Participation has placed serious demands on the organization and has led to several organizational changes as well as an increased need for external fundraising, professional administration and advocacy. Given that the majority of the province's EIAs are undertaken in the basin, it has also led to a certain amount of 'stakeholder burnout' as they struggle to ensure that they can participate meaningfully in these procedures (Barnett and Scott, 2007: 7).

This seemingly incongruous balance between protest (against local industries, as well as the national and local state) and participation in formal state-run processes is at the core of the SDCEA's operations. This is an interesting echo of Skocpol's (2003) discussion of the productive relationships between civil society groups and the American government in the nineteenth and early twentieth centuries, as well as Hernández-Medina's (this issue) discussion of participatory budgeting in Sao Paulo. As we explore these different areas of engagement in more detail, I will argue that far from being contradictory, protest and participation in fact support and feed into one another. This unlikely relationship is one facet of the complex social and political dynamics that arise from the role that cities play as key sites for the capitalist commodification, transformation and circulation of nature (see Heynen *et al.*, 2006), in this specific case, fossil fuels. While these taut local dynamics may seem superfluous to a discussion of participatory responses to climate change, they establish the context with which those responses must interact. They are the conditions 'on the ground'. These are the actors who will be most able to participate meaningfully in a new facet of the way in which we govern the urban environment and the environmental impacts of the urban.

April fuels day

The First of April, traditionally April Fools Day, has since 2005 been transformed into an international day of activism targeting the fossil fuel industry for its role in causing

anthropogenic climate change. Re-named 'Fossil' Fools Day, events staged around the world under its banner combine a pallet of traditional direct action tactics, with a dose of humour to both 'name and shame' key players in the oil and gas industry, and the financial institutions and politicians who support them, while raising awareness about their role in contributing to climate change (*Edmonton Journal*, 2008; Gardner 2008).⁹

In Durban, 2008's Fossil Fools Day was an opportunity for SDCEA to stage a large protest outside the Engen refinery, with demonstrators wearing traditional mourning clothes and laying floral wreaths at the refinery's gates to draw attention to the many asthma, leukaemia and cancer deaths linked to emissions. Similar to an earlier St Patrick's Day demonstration against Shell, held in solidarity with Irish communities who were also protesting similar grievances against the company, the First of April protest capitalized on any opportunity to participate in a coordinated international event. It is partially through these events that SDCEA links itself into a large network of local and international organizations concerned with similar issues. This network is a valuable support to the organization, and serves as a conduit for information, tactics and encouragement.

At a more immediate level, thanks to attention from the local media, these days of action create a public opportunity for them to voice their concerns and present demands to the companies and the municipality. At the Fossil Fools Day protest SDCEA, its affiliates and community members presented a memorandum to the Engen refinery's managing director, simultaneously releasing it to the media. With the title 'The Right to Know, the Duty to Inquire, the Obligation to Act' it contained 15 key demands. Three are excerpted below:

Local, provincial and national authorities [must] improve data collection on the refinery industry, including flare monitoring of volumes and content of flare gas,¹⁰ extension to measure for other noxious chemicals otherwise ignored, as well as video monitoring.

In Alberta [Canada], if the refinery operators do not solve a flaring problem, the public can submit a written objection to the EUB (Energy and Utilities Board). The board will then consider the application for a permit and the objection. We demand similar legislation here that acknowledges residents as being crucial in terms of public participation and for bringing potential problems to the fore.

That both Sapref and Engen calculate the carbon emitted not by assuming high combustion efficiency but rather by measuring actual combustion efficiency (SDCEA, 2008).

These demands show how an organization like SDCEA is able to translate concrete local environmental justice problems into complex technical demands, deploying a high level of expertise and articulating their concerns with similar struggles in other contexts (such as the mentioned Canadian legislation) as well as with the larger movement to properly measure and reduce carbon emissions that is part of the global response to climate change.¹¹ The memorandum shows that far from simple protests against a generalized vision of 'pollution', public demonstrations are being used as a platform for concrete criticisms of the local regulatory regime (a regime which SDCEA has had a hand in shaping, as we will see below). The street, just as much as the negotiating table, can be a site for productive participation despite the fact that it is not, or not always, a site of consensus.

9 This year both Ken Lewis, CEO of the Bank of America and Canadian Premier Ed Stelmach were awarded dubious Fossil Fool Awards for their role in promoting the 'development and dissemination of fossil fuel-related pollution' (*Edmonton Journal*, 2 April 2008); see also www.energyactioncoalition.org and www.fossilfoolsdayofaction.org.

10 Flaring occurs when refineries vent and burn surplus gas from the tops of tall chimneys to relieve pressure on plant equipment. Flaring produces CO₂ emissions, particulates and a variety of other toxins, as well as noise pollution and powerful odours.

11 In highlighting some of the problems with carbon accounting within the petroleum refining sector, SDCEA in fact taps into a difficulty also discussed by the IPPC (see Bernstein *et al.*, 2007: 466).

Coalescing over climate

Fossil Fools Day and the SDCEA memorandum's demands show that climate change is acquiring importance as an issue linking together multiple organizations that work on different aspects of the socio-environmental problems faced by their home communities. In its newsletter, the Alliance articulates the hope that this common ground may turn into something more substantial: 'As never before, opportunity is knocking for activists. The solutions to global warming and chemical contamination are both peeking over the horizon and they look very much alike. The timing is perfect for building a global coalition' (Montague, 2008).

At the community level, SDCEA's chairperson Des D'Sa sees climate change as a challenge needing mass involvement from all sectors of society: 'Everything we do should be climate change. We should be starting now. At the various levels, in our homes, our families, our schools, in government' (interview with SDCEA chairperson Des D'Sa, 17 March 2008). But changes in climate are also an important threat that increases the vulnerability of the community in the basin in particular. Recalling recent flooding that left several families homeless and inundated both local refineries causing 16 hours of continuous flaring (Christianson, 2008), he emphasises the volatile effects that climate change could have on his community:

In January we had a storm last year, a huge storm along the coast. We had another one this year. In both of those instances we were very lucky, the refineries have flooded, we had a small fire at ENGEN, but can you imagine what would happen if you had a huge explosion at ENGEN or SAPREF, . . . shoop! Bhopal would look like a picnic (interview with SDCEA chairperson Des D'Sa, 17 March 2008).

From the point of view of SDCEA's campaigns, the effects of carbon emissions are another front in their fight against the petrochemical industry. Displaying some of the fiery rhetoric that has earned the Alliance its reputation within the city, D'Sa explains:

Certainly it does [fit within our mandate] because Shell and BP and these guys are preaching how they invest in renewable [energies], and we are saying "This whole issue of fossil fuels, how long is it going to carry on?" Stop digging! Stop exploring the earth and digging up the ground! . . . We need to start going to the big guys in the Hague and London and start pricking their conscience. THESE ARE THE GUYS THAT ARE THE KILLERS, these are the guys that are the murderers of millions of people . . . Being a nice person and talking to them is not enough. We need to embarrass them, and make sure the focus is on them all the time (interview with SDCEA chairperson Des D'Sa, 17 March 2008).

The upside of down – conflict's positive contributions 1: on listing and legitimacy

If you ask municipal officials about the relationship between the City and NGOs, the SDCEA frequently emerges as an example of what are considered to be confrontational and unproductive exchanges. With climate change as much as any other issue, confrontation is a key part of the Alliance's approach to its campaigns both at home and abroad:¹²

Being on the streets for us is a sign of how far we have come, and how far we still need to go. It is a sign to the government that the people are prepared to take to the streets if you do not do your job . . . It is keeping governments [and industry] on their toes . . . and not thinking that

12 Along with activists from other areas, SDCEA members attend Shell's board meetings and other events to protest against their activities.

they can get away with things. We have seen it in other parts of the world, where people think that just because they have got a progressive government things will change. No way!

The most progressive governments in the world will always need pressure from the people (interview with SDCEA chairperson Des D'Sa, 17 March 2008).

This form of participation has earned SDCEA a reputation; for many officials the Alliance is the first organization that comes to mind when thinking about environment-related conflict between the city and civil society (interviews, eThekweni Municipal officials, 12 February to 1 April 2008). Barnett and Scott (2007) report that key municipal figures, including the City Manager and the head of the Environmental Management department, perceive NGOs and CBOs as a largely negative force within the city. More than simple frustration, Barnett and Scott (*ibid.*: 2627) argue that this reaction on the part of the municipality is in fact an expression of a very specific vision of how participatory processes should proceed based on norms of 'participation, conciliation, and consensus. Any departure from these norms is looked on as obstructive, and even as an index of the lack of legitimacy of the SMOs [social movement organizations] who adopt such adversarial activism'.

Legitimacy, however, is not only derived from government approval. Barnett and Scott (*ibid.*) make a convincing argument that SDCEA's 'dramaturgical protests' play an important function in maintaining the organization's legitimacy with their grassroots constituents while they participate in more formal channels, such as the NEMA EIA process and the building of the Multi-Point Plan (MPP) which we will discuss below. Likewise, as Ballard (2007: 20) argues, the legitimacy of NGOs and CBOs rests on their continued resistance to the domesticating influences of state-led processes; it is this resistance that allows them to maintain the independence necessary to ground their role as constructive critics and to escape becoming simple "assistants" to the state planning apparatus'. These links between legitimacy and conflict also affect state-led participatory processes. As Ballard (*ibid.*: 19) points out, if governments seek to marginalize protest and opposition, their participatory promises quickly begin to appear empty in the eyes of the public.

Despite a general uneasiness around SDCEA's tactics, a number of municipal officials were quite open about the beneficial, if at times uncomfortable, function performed by SDCEA and other organizations like it. One official put succinctly what came up in interviews with other officials as well, and the story he told illustrates another important function of civil society mobilization and protest: 'You need the environmental movement, you know. The government can pass environmental regulations, but right now those are so weak. The big companies need to get "klapped"¹³ and the community organizations keep them on their toes' (conversation with Eric Appelgren, IDP Ward Consultations, 17 February 2007). That the government at times also needs to be 'klapped' is a symptom of the heavy weight that businesses considerations seem to have when it comes to important municipal decisions.

The city has a track record of low penalties for infringements of air quality regulations, combined with recorded fears among city management that being perceived as too 'green' might make the city economically uncompetitive. Durban's economic development plan focuses largely around major investment of public capital in monumental construction (conference centres, sports stadiums and real estate development) to attract private investment (interview with Jacquie Subban, head of Geographical Information and Policy Unit, 3 April 2008). This is not to say that the local government is not attentive to social and environmental problems,¹⁴ but that these issues exist in a context of competing interests.

13 South African slang for 'smacked' or 'brought into line'.

14 The municipality of eThekweni is justly proud of its achievements, which include building 16,000 affordable housing units every year, seriously pursuing a large-scale consultative planning process as part of the Integrated Development Plan to make sure local communities have a voice in

Durban is by no means unique in trying to balance social and environmental goals with a particular vision of economic growth (see Robinson, 2006).¹⁵ Here in fact we find a separate and often competing source of legitimacy for municipal decisions: many cities are moving down a road of increasingly conservative and neoliberal planning practices justified by hopes that doing so will make them more attractive to national and international capital. This has led in some cases to the infamous ‘race to the bottom’ in terms of issues of taxation and environmental protection. Harvey (1989) and de Souza (2006) both speak of a generalized movement towards ‘entrepreneurial’ urban governance or ‘urban neoliberalism’ which sees power being increasingly given over to private capital to shape land-use planning and municipal policy (see also Brenner, 2003 on *Standortpolitik*). Civil society groups and NGOs therefore are in a position to play an important role in coalescing concern and resistance to counterbalance the influence of business on local government and question the legitimacy of this economic approach to urban development.

To misappropriate one of Foucault’s metaphors, community resistance helps to keep the ‘ship of state’ from listing too heavily to one side. Local NGOs and CBOs can partly fulfil this function from within state structures, such as the EIA and MPP process in which SDCEA participates. But as Rosol (2010, this issue) also shows in a related discussion of urban green space governance in Berlin, the results of neoliberal official processes can be ambivalent. There will therefore be times when the options presented within these bounds, and the underlying priorities of the municipality, need to be questioned more fundamentally. This is particularly relevant in the context of climate change given the influence, discussed above, that changes to local and national development paths will have on carbon emissions. External pressure and protest are essential here, both to show the limits of what is presently under consideration in state-sanctioned processes, and to bring about new types of knowledge and awareness that can then be brought back into future deliberation.

The upside of down – conflict’s positive contributions 2: the collaborative science of confrontation

As we have seen, the use of confrontational strategies on the part of urban environmental organizations serves multiple purposes. Street protests, for example, are a means of articulating local concerns with national and international activist networks; they create spaces for conversation among multiple related areas of concern, and attract the crucial attention of the media, which can then be used to put pressure on local governments and corporations. This is the most commonly perceived face of local activism. Often less recognized are the ways in which local environmental organizations employ scientific methods as a form of contestation and opposition. In the SDB the frequent mismatch between people’s experiences of odours and illness and what is recorded by air quality monitoring systems has pushed SDCEA to engage more actively in the production of scientific knowledge.

The ongoing experience of local residents with the effects of pollution has led participants in the workshops I attended to the conclusion that there is more going on than captured by official numbers from either government or corporate air quality

determining how budgets are spent in their communities, and implementing an air quality management plan to regulate industrial emissions (more on this last follows).

15 These same conflicts also play out at other scales — around the problematic adoption of the international Kyoto protocol, for example, and concerns over its effects on national economies. The more immediate macroeconomic context which exacerbates this situation at the municipal level is the national government’s GEAR policy (growth, employment and redistribution) covered in Barnett and Scott (2007: 2613–14).

monitoring systems. In the late 1990s a local elementary school particularly hard hit by the effects of pollution, the Settlers School, emerged as a key point for community mobilization. Teachers reported widespread health problems, and a later study (groundWork, 2003) found that 52% of students suffered from asthma, and 26% of these were persistent cases — far exceeding the European average of 14–16%. The rudimentary air quality monitoring system in place at the time could not account for this, or the multiple other health conditions suffered by the community in general. Residents and activists were aware that many harmful compounds were not monitored by state or industry, and that the records that did exist were difficult to access and often of irregular quality. This led SDCEA to take conflict into the laboratory and to produce their own data to more effectively put pressure on government and industry.

Since 2000, they have been a leading player in a community air quality monitoring program that uses independent monitoring to support claims against industry. Affectionately known as the ‘bucket brigade’, the system is based on air samples taken using special sampling bags placed within modified plastic buckets and filled using a hand-pump. Light, easy to operate and reliable, this system allows SDCEA members to take ‘grab samples’ for analysis at any publicly accessible location where a problem has been reported by residents. When the first sample was taken in 2000 it was seen by participants as ‘a milestone victory for environmental justice in South Africa’ (interview with Stephen VanWyk, ex-SDCEA Air Quality Officer, 28 March 2008). That initial sample detected seven noxious chemicals, including alarmingly high levels of benzene, a carcinogen that at that point was not included in any of the local monitoring systems or national regulations (groundWork, 2003: 28). As well as providing data, this first sample showed that local organizations could speak the language of science and challenge industries and governments on their own turf. But at that point conflict began to fold into collaboration in interesting ways.

Since the late 1990s, SDCEA had been on the steering committee of a collaborative program bringing together industry and local and national governments to address the need for better emissions monitoring in the basin. As its name suggests, the South Durban Sulphur Dioxide Management System only measured one pollutant (DEAT, 2007: 10). The group had been gradually expanding monitoring to include both ozone and NO_x, but the results from the bucket sample allowed the SDCEA to push for even more inclusive monitoring. Four months after the first bucket sample, a new monitoring station was opened at the Settlers School. The station was the first monitoring point in the basin to continuously monitor CO, TRS and PM₁₀, in addition to SO₂, NO₂, NO_x, and NO (site visit, 11 March 2008). But the effects of the bucket sampling were much larger:

The first sample sent airwaves through the government. That is what made government come down to South Durban, brought down the National Minister of Environmental Affairs, at that time it was Valli Moosa . . . So it shook the government up, and it shook the municipality up. That there is a crisis. A problem, not one that they were unaware of, but [one that they] didn't know how to deal with (interview with Stephen VanWyk, ex-SDCEA Air Quality Officer, 28 March 2008).

In late 2000, Minister Moosa announced a special Air Quality Multi-Point Plan (MPP) which would grow to replace the Sulphur Dioxide Management System by 2003. The MPP brought about a large expansion of both local monitoring facilities and the chemicals they monitored, and led to dramatic reductions in sulphur dioxide emissions within the basin. SDCEA chairperson Des D'Sa is cautious in his celebration though, making it clear that communities have an ongoing role in pushing the limits of official policy:

Whilst through the monitoring network we have reduced sulphur dioxide, we have an increase in other chemicals, and [there are] a host of other noxious substances that are not being measured at all. In fact it is not even a drop in the ocean. While we must say that we are far

better than any other municipality in South Africa — in the sense that we have got the most progressive, and the best technology in the entire country — they still only measure five chemicals (interview, 17 March 2008).

As their Fossil Fuels Day memorandum makes clear, SDCEA intends to continue pushing for increased accountability and broader monitoring and enforcement of government's regulation of the private sector. Their role in this process can in some senses be tied back to the shift mentioned earlier from government to governance. If so we would read confrontations between civil society and industry as an expression of the problems of accountability and compliance identified by Stoker (1998: 23–4). Civil society pressure is something which could step in to strengthen (or force) government's ability to regulate and thus steer more firmly the collaborative relationships that networks of governance aim to create. On the other hand, it could be an expression of a more fundamental problem with this shift: that governance and consensus are not adequate to the pressing environmental problems that we are facing.

For D'Sa, the path to the Multi-Point Plan was paved by pressure and conflict: 'It is our protesting with Mandela in 1995 that brought about the Multi-Point Plan . . . it came because of the community protests at ENGEN's gates'. However, it is clear that the scientific challenge that helped bolster these protests had other impacts. As well as adding scientific clout to the experiences of community members, it helped to demystify science for members of the community. At the regular meetings held by SDCEA, the ongoing use of bucket sampling¹⁶ raises awareness in the community of the specific nature of the problem they face, but also of the specific processes through which these compounds are generated, regulated and (potentially) mitigated. This has acted as a bridge, allowing some community members to participate more fully and critically in community consultations and giving them a valuable tool for holding both industry and government accountable (SDCEA Air Quality Workshop, 11 March 2008; groundWork, 2003: 10). But it is not solely about accountability: community-generated scientific knowledge has also supported and catalyzed capacity building within the local regulatory authorities themselves, pushing the boundaries of current monitoring and regulatory frameworks and increasing the ability of the municipal community as a whole to understand and address local environmental problems.

Conclusions

The discussions of the role of participatory process in addressing climate change are still at an early stage. To date, the IPCC has largely confined its engagement to the large body of work that sees participation either as a component part of managerialist approaches to policy design and resource management, or as an instrument through which to forge consensus and build networks of governance. At the same time, it is becoming increasingly clear that a changing climate will pose a major challenge not only to our ability to innovate or intervene scientifically and technologically, but more importantly to the capacity of our social systems to make difficult decisions about the course we want to chart into the future. Current climate models have shown that those larger decisions about the collective goals and priorities which we set for ourselves will far outweigh the effects of policies specifically aimed at the climate.

It is in that context that the study of participatory processes gains its importance. In the long term, the choices we have made and continue to make about climate change will be among the most important. In the short term, it is clear that we already face decisions which are testing our abilities to balance multiple social, environmental and economic priorities. We need to continue building a better understanding of how our political

16 SDCEA currently runs 12 samples a year.

systems respond to these challenges. Critical engagement with the issue of participation is a component of that process. But, as we have seen, discussing it solely in terms of consensus leaves untouched the reality of conflict and the possible contributions of confrontation.

The work of SDCEA in the South Durban Basin provides a concrete example of both this reality and the contributions that can arise from protest. Cities are key sites where the social, the economic and the environmental come together in difficult decisions about economic growth and urban development. Struggles over urban environmental justice represent both a context and constituency that are already influencing these decisions and that need to be incorporated into our understanding of participation and climate.

At the same time, urban environmental conflicts push us to move away from an institutional view of participation centred around Habermasian visions of consensus and collaboration. Far from hurting local democratic structures, resistance from civil-society groups can play important functions (see also Becher, this issue). Protest can counterbalance the influence of industry, and help ensure accountability, enforcement and compliance. It can be the impetus for initiatives that develop the capacity of local communities to engage meaningfully in complicated debates, and produce innovative new forms of knowledge that support the regulatory powers of the state. Depending on how they are used and responded to, conflict and protest can also help establish the legitimacy of both civil society organizations and state-run participatory processes.

It is unclear whether this represents a point where government must begin to take over once again from governance, or if conflict is rather a mechanism for ensuring accountability within networks of governance. In either case, the idea of consensus-based systems of governance as an alternative to state regulation does not ring true. Conflict and the renewal of effective and enforced environmental regulation play necessary roles.

The Durban case study confirms the larger argument developed across the works in this symposium that we need to move away from binary categorizations of political participation. Rather than perceive consensus and conflict as mutually exclusive forms of political action, we need to begin 'thinking dynamically' (Silver *et al.*, this issue). Far from being in opposition, conflict and collaboration constitute mutually re-enforcing elements of an ongoing political process. In the interviews which formed the basis for this article, members of both civil-society groups and the municipality referred consistently to the need for us all to be kept 'on our toes'. While at times uncomfortable, conflict, confrontation and protest fill an important role in fighting the complacency that can arise from consensus-based models. It can also be a powerful counter to the possibility that governance will act as a justification or disguise for weakened regulatory action.

The most successful responses to climate change will come from places that are able to recognize and make the most of the strengths that grow from conflict. This is not because conflict represents an ideal state of deliberative participation as developed by Habermas, Sabel *et al.* and many others, but because it is an important element in the actual state of participation in most parts of the world. Rather than marginalize and question the legitimacy of groups who engage in protest, we would be better to recognize the contributions they bring, and the role they could play in the implementation of the pressing solutions that we need.

In that respect, the multiple possible futures contained in the IPCC's climate scenarios (see Figure 2 above) present a social challenge that its work on governance and participation has yet to fully address. As the scenarios illustrate, shifting from our present course to one that is both more sustainable and more equitable will require significant social, economic and political innovation. What approach to participatory governance, in particular participatory *urban* governance, can help contribute to this? Acknowledging the dynamic relationship between conflict and collaboration is a beginning. But what other aspects of participatory urban governance need recognition if we are to best describe and facilitate attempts by urban populations to collectively, effectively and

rapidly respond to the challenges of a changing climate? These are important questions for future research.

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Résumé

Le bassin Sud de Durban, situé sur la côte Est de l'Afrique du Sud, abrite à la fois un vaste secteur pétrochimique et une communauté résidentielle particulièrement mobilisée. Dans une lutte cimentée par un urbanisme datant de l'apartheid, les campagnes communautaires pour améliorer la qualité de l'air local testent la valeur de la lutte en faveur de structures démocratiques participatives. De plus, dans le cadre des travaux du Groupe d'experts intergouvernemental sur l'évolution du climat (GIEC), le bassin Sud de Durban offre une occasion de repousser les limites des liens établis entre la participation, d'une part, et l'élaboration et la mise en œuvre de réponses au changement climatique, d'autre part. Contribuant à l'un des principaux thèmes du symposium, cet article montre que, compte tenu de leur focalisation sur la collaboration et le compromis, les études sur la gouvernance et la participation négligent la réalité de la lutte autant que ses effets positifs potentiels. Pour ce faire, il examine comment les relations de pouvoir modulent les processus de gouvernance ainsi que le rôle de la société civile visant à équilibrer l'influence du secteur privé sur l'État. Il convient également de mieux appréhender lutte et collaboration comme des composantes qui se nourrissent mutuellement dans un processus politique permanent et dynamique. Les éléments de cette analyse critique, une fois réunis, aident à élaborer une vision plus nuancée de la gouvernance urbaine participative. Cette vision offre une meilleure description et peut faciliter l'aptitude des populations urbaines à réagir de façon collective, efficace et rapide aux défis du changement climatique.