

**IDS Working Paper 254**

**Managing mobilisation? Participatory processes and dam  
building in South Africa, the Berg River Project**

**Lisa Thompson**

November 2005

INSTITUTE OF DEVELOPMENT STUDIES  
Brighton, Sussex BN1 9RE  
ENGLAND

Lisa Thompson is one of the South African partners of the Citizenship DRC. She has a project with the 'Citizens and Science' research programme, co-convened by Ian Scoones and Melissa Leach, and as part of this project, one of the outputs had to be a Working Paper for the citizens and science mobilisation series.

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First published by the Institute of Development Studies in November 2005  
© Institute of Development Studies 2005  
ISBN 1 85864 887 4

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Available from:  
Communications Unit  
Institute of Development Studies  
at the University of Sussex  
Brighton BN1 9RE, UK.  
Tel: +44 (0)1273 678269  
Fax: +44 (0)1273 621202  
Email: [bookshop@ids.ac.uk](mailto:bookshop@ids.ac.uk)  
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Printed by XPS Limited, Brighton UK  
IDS is a charitable company limited by guarantee and registered in England (No. 877338).

## **Summary**

This paper examines the participatory processes which led to the building of the Berg River Dam in South Africa's western Cape province. The government-led formal participatory processes initiated by government stand in contrast to the mobilisation of environmental activists against the building of the dam. The case study illustrates that in this case the creation of formal participatory spaces both subverted and neutralised resistance to the building of the dam on the part of the environmental movement as well as civil society.

Keywords: mobilisation, participation, water scarcity, scientific knowledge, lay knowledge, environmental activism, water resources management



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## **Preface: DRC working paper series on citizens, science and mobilisation**

Rapid advances in science and technology are accompanied by changing forms of public engagement, with implications for citizenship. There is evidence both of apparent crises of public confidence in science, linked to the emergence of new risks, uncertainties and threats thrown up by science, technology and its application. At the same time, certain local knowledge is being re-worked as citizen science, in which the public conducts research and engages critically with expert perspectives on scientific and technological issues.

The Citizens and Science Programme of the Citizenship DRC has been exploring emergent engagements between citizens and public issues involving science, and the processes of rights-claiming and participation involved. This inquiry has moved beyond institutionally-orchestrated attempts at public participation in science to look at more spontaneous forms of citizen mobilisation and activism around scientific and technological issues. Across a diversity of issues and contexts and drawing together perspectives from social movement theory and science studies, the Programme has asked:

- Who mobilises and who does not, and why?
- What are the patterns of experience, profiles and identities of activists?
- Within what spaces do debates about science and policy take place, and what processes of inclusion and exclusion exist?
- What forms of knowledge – including values, perceptions and experiences - frame these public engagements and movements?
- How are activist networks constituted, and what diverse forms do they take?
- How do science and scientists become enrolled in these networks?

Working Papers in the series include:

‘MMR mobilisation: citizens and science in a British vaccine controversy’, by Melissa Leach.

‘Managing mobilisation? Participatory processes and dam building in South Africa, the Berg River Project’, by Lisa Thompson.

‘Contentious politics, contentious knowledge: mobilising against genetically-modified crops in India, South Africa and Brazil’, by Ian Scoones.

‘When social movements bypass the poor: asbestos pollution, international litigation and Griqua cultural identity’, by Linda Waldman.

‘Rights passages from “near death” to “new life”: AIDS activism and treatment testimonies in South Africa’, by Steven Robins.

‘The formation of the Brazilian environmental movement’, by Angela Alonso, Valeriano Costa and Débora Maciel.

'Contesting scarcity', by Lyla Mehta and Lisa Thompson.

'From "medical miracles" to normal(ised) medicine: aids treatment, activism and citizenship in the UK and South Africa', by Steven Robins.



## Acronyms

ARN	African Rivers Network
BWP	Berg Water Project
CBOs	Community-Based Organisations
CCT	City of Cape Town
CMC	Cape Metropolitan Council
CMA	Cape Metropolitan Area
CMA	Catchment Management Agencies
CPR	Chronic Poverty Report
CSO	Community Based Organisations
DA	Democratic Alliance
DEAT	Department of Environment and Tourism
DWAF	Department of Water Affairs
EIA	Environmental Impact Assessment
EMG	Environmental Monitoring Group
EMC	Environmental Management (now Monitoring) Committee
FBW	Free Basic Water
GSMs	Global Social Movements
IDP	Integrated Development Plan
IUCN	World Conservation Union
IWRP	Integrated Water Resources Plan
NAWISA	Network for the Advocacy of Water Issues in Southern Africa
NEPAD	New Partnership for African Development
NGOs	Non-Governmental Organisations
NP	National Party
NRM	Natural Resource Management
NSMs	New Social Movements
NWA	National Water Act
PLAAS	Programme for Land and Agrarian Studies
ROD	Record of Decision
SADC	Southern African Development Community
SAMWU	South African Municipal Workers Union
SANGOCO	the South African NGO coalition
SAWC	South African Water Caucus
SMs	Social Movements
TCTA	TransCaledon Transport Authority
WCD	World Commission on Dams

WCSA	Western Cape Systems Analysis
WCUG	West Coast User Group
WDM	Water Demand Management
WEJP	Water and Environmental Justice Programme
WESSA	Wildlife and Environmental Society of Southern Africa
WSA	Water Services Act
WSDP	Water Services Development Plan
WSSD	World Summit on Sustainable Development

## 1 Introduction

This paper examines participation in South African water and development debates in the context of global discourses on water, natural resource management and development.<sup>1</sup> The recent developmental stress on local participation in natural resource management, particularly water, through global processes such as the World Commission on Dams (WCD) dialogue and report (2000) is analysed in relation to how water supply and demand strategies are framed at the national and local level. How do these discourses provide frameworks and spaces for participation which link to global discourses and action? Case study work on the City of Cape Town's (CCT) water policies form the backdrop against which broader policy discourses are discussed. While it is clear that South Africa has been influenced by global discourses on water resource management at the national, provincial and local policy level, it is not as obvious how local groupings strengthen, or are strengthened by, the national environmental movement, nor to what extent activism on water resource management in local contexts feeds into national and global social movement dynamics.

This paper seeks to examine these issues by focusing on participation around water scarcity management in the Western Cape, in particular processes leading up to the building of the Berg Water Project (BWP) which includes the Berg River Dam,<sup>2</sup> hereafter referred to throughout the paper as the BWP. These processes included the setting up of formal spaces of participation on the part of government, which arguably tempered the momentum from the environmental lobby against the dam. Examining these formal participatory spaces and the processes and dynamics within them highlights how activism and social mobilisation may be watered down by what are perceived to be democratic governance practices.

Debates on water as a scarce resource have featured prominently in global and national policy discourses. There is significant societal resistance to the types of "scarcity control" policies advocated by many governments, as well as controversy about the construction of scarcity as a validation for many of these policies (Mehta 2005). The global environmental movement has been at the forefront of highlighting weaknesses and flaws in local and global constructions of water scarcity, thereby bringing "scarcity" as a previously scientifically sacrosanct concept into the realm of public scrutiny. While the environmental movement in Southern Africa is relatively weak in relation to its western counterparts, it has made its presence felt on water policy through the WCD process as well as at the World Summit on Sustainable Development (WSSD), and various environmental organisations and groupings are actively involved at the national policy level. The degree to which this social movement resistance is linked to local participation and activism is examined here in the context of water supply-side policies. The role of government-driven

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<sup>1</sup> These themes build on research on the theme of Citizenship and Science in the Global Context in the Development Research Centre on Citizenship, Participation and Accountability, funded by DFID and hosted by the Institute of Development Studies at the University of Sussex.

<sup>2</sup> The dam was originally called 'Skuifraam' after the name of the largest farm on which the dam would be built. The Project consists of the dam as well as a supplement scheme

participatory processes is examined in some detail, as a number of states, including South Africa, have attempted to neutralise criticisms of their water management strategies by introducing formal spaces for participation.

Three broad theoretical questions will be examined:

1. To what degree do global discourses on science, development and natural resource management influence the participation of local communities especially with regard to technological development discourses such as those prevalent in dam building?
2. With respect to community based participation in areas of technological innovation and water provision, which forms of participation and/or non participation are effective, and why? Which sort of lay knowledge counts, if any?
3. Why do certain areas of scientific and technological innovation give rise to social activism and mobilisation of movements and others not?

These questions help to bring together a number of debates around the environment, natural resource management, development and participation with regard to how technology and science are important to governance and related government policies which are to be mediated by public participation. This paper aims to highlight the socioeconomic aspects of participation in discussions of governance of the environment and the management of so-called scarce natural resources.

## **2 Perspectives on Water as a Scarce Resource and Water Resource Management in South Africa's Western Cape Province**

South Africa's current National Water Resource Management Policy Framework has been praised by many international organisations for its commitment to social justice. Since 1994, two new regulatory Acts came into force, the Water Services Act (WSA) of 1997 and the National Water Act (NWA) of 1998. The WSA laid the basis for the government's Free Basic Water (FBW) service programme which began in early 2001. In spite of the policy commitment to equity and historical redress, current policy approaches to water provision and natural resource management in South Africa show a definite orientation to viewing water resource management as a "naturally scientific" technologically orientated enterprise. This is mediated by the highly politicised debate between the environmental movement and government on citizenship rights and the dominance of neoliberal economic ideology which is said to favour the interests of big business and industry, wealthy farmers and urban elites rather than the poor (Bond 2002b)<sup>3</sup>.

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<sup>3</sup> Critiques of government's environmental/natural resource policies on water are based on evidence that poorer communities pay relatively high tariffs, thus effectively subsidising richer communities, and that the 6000 kl FBW allocation is insufficient. These critiques find resonance and support with broader based social movements in South Africa, especially those which are union based. The environmental movement has also taken government on about the extent to which the current Integrated Water Resource Management strategy has not curtailed the heavy bias towards supply-side water management, and on dam building, to the detriment of the environment.

Interviews in Cape Town with local government officials as well as with Department of Water Affairs (DWAF) officials show that both bulk water supply and water service delivery (under the control of DWAF and the CCT) are viewed primarily as technical management exercises rather than from within a rights-based frame. This obscures many of the trade-offs being made with regard to managing water as a scarce commodity and as an economic good. In terms of participation, one of the offshoots of this approach to Natural Resource Management (NRM) is that participants in formal processes must either become proficient in the language of the scientific policy discourse or remain silent.

On the supply side, the South African government continues to emphasise the need for more water storage in South Africa, and the Western Cape is no exception. While there are already five other large dams in the Western Cape, the BWP clearly shows that there is a strong government bias towards viewing large dam water strategy as a vehicle for industrial development in cities. Water Demand Management (WDM) has received considerably less attention in spite of the fact that service delivery has become a very big local government issue. Bond (2002a) and Swatuk (2000) point out that water storage and transfer schemes have dominated the South (and southern) African landscape, with a clear bias towards industrialisation for decades. These patterns show no signs of changing, despite South Africa's constitutional commitment to rights of access to water, and the accompanying legislation regarding basic services and free water. WDM and related environmental concerns have received far less policy attention than they deserve. McDonald (2000: 3) states:

[...](w)hat are increasingly referred to as “brown” environmental problems – brown being more appropriate . . . to describe the kinds of environmental problems associated with backed up sewage and dusty, treeless streets – are perhaps the single most important environmental problems in South Africa today, and the provision of basic municipal services like sewerage and sanitation are arguably the single most important environmental initiative that the new South African government can take.

The link between supply side and demand side issues will be explored in greater depth particularly in relation to questions of public input and participation in Sections Five and Six of the paper.

In particular, this paper focuses on two aspects of the public participation process around the BWP. The first is the process which led up to the official approval of the dam by the government. The process by which the dam has been legitimated serves as a very good example of how participatory processes may be disciplined by scientific development and management policy discourses. The lead up to the building of the Berg Dam involved a long government-driven participatory process aimed at including all “interested and affected parties”, to debate the various options for solving the Western Cape's water “crisis”. As part of this, in the early 1990s scientific assessments undertaken by engineering consultants on behalf of government resulted in a document called the Western Cape Systems Analysis (WCSA). This document formed the basis of a series of public meetings which led to the public approval of the dam. Parallel to this process, a mandatory Environmental Impact Assessment (EIA) on the BWP was undertaken and released for public comment. Finally civic input to the process of building the dam was institutionalised through

the setting up of the Environmental Management (now Monitoring) Committee (EMC). The EMC process highlights the second aspect of participation around the building of the dam and the cooptation of groups, including representatives of the environmental movement, on the actual building of the dam (a process which began in July 2004 and is projected to take at least three years to complete). On the face of it, both processes appear to show a very high level of government commitment to including civil society, Community-Based Organisations (CBOs) and Non-Governmental Organisations (NGOs) in NRM processes. A more detailed examination of the processes, which show among other things how these formal processes led to the “silencing” of the environmental movements concerns and actions, indicates how “invited” formal spaces of participation can serve to legitimate government policies while seemingly giving “interested and affected” parties a say in decision-making.<sup>4</sup> The BWP case also illustrates how such formal spaces of participation can be manipulated by the government to serve its own ends. The fact that the WCSA process and the EIA for the building of the Berg River dam were held simultaneously underlines the extent to which the government may use scientific knowledge claims to legitimate political decisions. Nonetheless as is discussed in Section Seven, the case of the EMC does indicate that even where cooptation does occur, there is still room for manoeuvre and resistance on the part of civil society. How the government manages this resistance offers insights to the limits of participatory democracy, but also to the ways in which formal spaces of participation can neutralise other more grassroots and activist forms of resistance.

The case study of the BWP is illustrative of the pros and cons of public participation in natural resource management policy processes as well as the ways in which lay knowledge and scientific knowledge intersect and mediate one another. In the context of water management, the construction of the “facts” of water scarcity also illustrate how public knowledge and input are mediated by the release of information. Participation in the processes which legitimised the building of the dam show the degree to which some level of expertification is necessary to enter such debates and to have legitimate voice. The BWP case shows that even when social movements intervene, as in the case of the environmental movement in the Western Cape on the BWP, timing, and the ability to play the governance game according to the rules set by government can have a major impact on the success of resistance. Also, as will be seen, the democratisation of participation, and the creation by the government of specific spaces for resistance, can lead to the watering down of the force of organised resistance to the point that it becomes ineffective. While this may not be the case for mobilisation in other issue areas, it seems that in the environmental movement realm at least, activity is strongly mediated by the government’s creation of formal “invited” spaces for participation.

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<sup>4</sup> The notion of formal invited spaces is derived from discussions and deliberation within the Spaces for Change Research Programme of the DRC on Citizenship, Participation and Accountability.

### **3 Social Movements (SMs) and Theoretical Perspectives on Science, Citizenship, Environment and Water**

Critical development approaches taken by Escobar (1995), Crush (1995) and others emphasise the degree to which social movements (SMs) challenge prevailing local and global hegemonic discourses on the “science of development”. How SMs also influence international norms and values, especially as these relate to the notion of global social justice, is also viewed as critically important. Stienstra’s (1999) more critical perspective on SMs emphasises how they also mediate between state and society and can perform a regulatory, state legitimising function.

A question that will be tackled below is the relationship between social forces and social movements. It is important to understand how social forces – which may share temporary as well as long term cohesion, based on class or identity collective interests – mobilise on issues, and under what conditions do social forces form social movements. Robert Cox’s (1987) influential work *Production, Power and World Order* explores the interplay between social forces and social movements in maintaining or challenging the international status quo, as well as the spaces in which distinctive alliances of social forces can lead to changes to global knowledge and structures.

Questions of representation also arise here and are linked to the controversy about the extent to which NGOs – local, national and international – represent social movements as well as how collective identities and social movements coalesce. Stavenhagen (1997: 33) makes a distinction between what he calls ‘truly non-governmental popular organisations’ and NGOs which are ‘but surrogates of government aid agencies’. The former are characterised by, amongst other things, ‘the articulation of the demands of the underdog’, and are often ‘at odds with their own governments and challenge existing paradigms of governance’, as well as ‘frequently seek to attain objectives which would entail alternative forms of economic development, political control and social organisation’. However, the risk of cooptation is ever present (O’Brien *et al.* 2000: 20).

The strength of global social movements (GSMs) is said to be their “global vision” and their major role, ‘the way in which they might contribute to increasing democracy by creating a global civil society’ (O’Brien *et al.* 2000: 22). However, GSMs, as extensions of SMs are also subject to cooptation into formal structures which can change as well as neutralise resistance.

Regarding theoretical perspectives on science, environment and water in South Africa, more radical perspectives can be found in South Africa, especially the prolific work of Patrick Bond, which focuses on GSMs’ ability to challenge hegemonic knowledge at both local and global levels, for example, the IMF/World Bank approach to development and natural resource management and the commodification of water and natural resource management as a “technicist” science. The ways in which national social movements develop coherence of purpose and/or translate a common vision and identity from the local to the global or vice versa is integral to understanding this dynamic.

The degree to which the South African environmental movement is seen as representative of local “grassroots” environmental concerns, including brown environmental issues, has been a contentious issue

as environmentalism, especially the green variety, has been branded by some in government as a “bourgeois” preserve. This is not in fact the case in South Africa, as this case study highlights. Dam building resistance has tended to remain the preserve of the organised environmental movement as a “green environmental issue”, but there has been collaboration with trade unions, and joint declarations on related “brown” environmental issues relating to dam building such as higher water tariffs. However, the environmental movement’s resistance to the BWP only gained momentum after the formal government-led participation process had taken place, effectively delegitimising their concerns (see Sections Five and Six below). This “after the fact” activism on the part of the environmental movement will be examined in some detail. Another form of activism, outside the preserve of the environmental movement per se is the Franschhoek Community, an alliance of both affluent and poorer stakeholders who form an unusual example of local forms of resistance in the face of government cooptation. The West Coast User Group (WCUG), a small, relatively affluent, group contesting aspects of the BWP, also shows the power of richer, educated stakeholder groups to influence government and government policy to some extent. The link between these forms of resistance and global resistance to dam building is somewhat tenuous, as is discussed in the final section of the paper, but the question of whose knowledge counts and how the status quo ante is preserved is central to understanding the successes and failures of mobilisation, as the example of the BWP shows, both in terms of the environmental movement, as well as more localised forms of resistance. It is at this level that the influence of global discourses which are generated and sustained by GSMs can be seen as having an impact on local social movements, as well as other groups.

Brian Wynne’s (1996) exploration of how lay people challenge scientific expertise refers mostly to a “developed” state context. The degree to which scientific development is critiqued through processes of community participation in the Southern African, and in this case South African, context seems to be significantly less, especially when focusing on poorer urbanised groups. Nonetheless lay resistance of the kind that Wynne refers to is in evidence around the building of the Berg River Dam. In particular the WCUG and the BWP EMC (of which the Franschhoek community are a part) demonstrate how the national policy discourse on water “scarcity” can be challenged at local levels.

### ***3.1 Social forces and social movements: participatory potential and processes in developing states***

Approaches to national social movements tend to focus on the motivations which groups develop for being involved in the kinds of activities that characterise social movements. More positivist accounts tend to emphasise aspects such as the political opportunity structure, social capital and public opinion frames (Ibarra 2003: 8–9). Approaches which emphasise the more anti-systemic revolutionary potential of social movements tend to focus more on the interplay between political and economic power between the global and the local that discipline social movements. For example, Arrighi *et al.* (1989: 27) and Cox (1987) point out that one of the growing weaknesses of old social movements, i.e. labour movements, has been the



international commodification of labour and the transnationalisation of production.<sup>5</sup> In terms of the ways in which social movements arise and mobilise in different national contexts, there is dispute among social movement approaches as to whether the lack of participation of poorer groups in urban areas is simply due to the fact that very marginalised groups are too concerned with survival to become involved in socio-economic developmental issues, even when these directly affect them, or because the issues do not affect them enough. Ibarra (2003) and Tilly (2003) argue that a combination of political opportunities and economic incentives give rise to activism. However these perspectives are not developed in the context of the kind of marginalisation present in the “third” or “developing” world, and some analysts in the South have argued that the material conditions of the very marginalised can act both as an incentive and disincentive. Survey work such as that undertaken by Programme for Land and Agrarian Studies (PLAAS) for the Chronic Poverty Report (CPR) (PLAAS 2002) in the Western Cape shows that levels of education and knowledge are critically important, as these affect the ability of groups to participate in meaningful ways, especially in areas requiring at least some scientific or technological know-how. The CPR also emphasises that with the vast majority of households earning less than R1,000 a month (less than £100/month) survival issues have both an immediate and ongoing significance.

The study of participation in water resource management undertaken in this paper shows that the transformatory potential of some marginalised groups *may* be circumscribed by their peripheralisation and hence their immediate preoccupation with survival. However it is also clear that certain issues *do evoke activism and strong community participation even in very poor communities*. The Franschhoek Community alliance resistance to government’s public company partner – the TransCaledon Transport Authority (TCTA) reneging on their social justice commitment to employ poorer communities in the Franschhoek Valley is an example of activism that transcends the “poverty” boundary (this is explored in Section Seven). Nonetheless the relative lack of involvement of other poorer communities – such as those who will have to pay higher tariffs for water in Cape Town, still leaves the question of who mobilises as a critical one.<sup>6</sup>

The lack of synergy between locally based forms of activism and environmental NGOs against the building of the dam ensured that the dam did not become a big issue within the environmental movement in South Africa. The reasons for this provide some interesting food for thought on the interface between competing stakeholder interests, as well as on the degree to which credibility is required by all stakeholders regardless of their socio-economic positioning.

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<sup>5</sup> Cox (1987) has pointed out that this has led to a cooptation of organised labour and the fragmentation of casual labour on a global scale. As Arrighi *et al.* (1989: 88–9) note, the basic complaint of new social movements (NSMs) towards old SMs was that the latter ‘supported both state policy and multinational policy *vis a vis* the Third World and the socialist world and that they did not attempt to represent the lowest paid and most exploited of the workforce’.

<sup>6</sup> The transformatory potential of social movements seems to lie, as Arrighi *et al.* (1989), Stavenhagen (1997) Murphy (2002) and O’Brien *et al.* (2000) point out, in the alliances and common identities which can be formed between new and old social movements nationally and globally. To the extent that the environmental social movement and the debates on natural resource management intersect with social/political aspects like human rights on the one hand and economics/development on the other, the examination of the ways in which alliances are formed at national and global level are illustrative of the complexities of participatory activism.

The relative success of informal and formal social groupings and forms of activism at the local, national and global level relating to the water/environment/rights/development nexus is critical to understanding the complexities of globalisation, human security and the environment in the South African context. Important in this regard are the roles of formal and informal groups linked to SANGOCO (South African NGO Coalition), as well as those linked to or taking their cue from the Social Movements Indaba, organised around the time of the WSSD in Johannesburg. In the Cape region, the most influential of these groupings have been the EMG and the Wildlife and Environmental Society of Southern Africa (WESSA) as well as, to a lesser extent, the local branch of Earthlife and the South African Municipal Workers Union (SAMWU).<sup>7</sup> Their involvement in making regional water resource management issues feature on national and global agenda, and their interaction with grassroots activism, shows the possibilities and limitations for social movements of government managed participation strategies on water and development. Here environmental activism on the BWP serves to highlight the constraints which face the environmental movement, as well as the limitations of environmental action in South Africa. Before turning to the BWP case study, a brief discussion of linkages between global and local environmental concerns with regard to water takes place in the next section.

#### **4 The South African National Environmental Movement in local/global context**

Environmental mobilisation on the issue of water has occurred in relation to rights, and in the case of South Africa, this is constitutionally enshrined and backed up by legislation on FBW. Bond (2002a) and others have focused on how these rights are mediated through water resource management being captured in government policy as an economic process. This economic focus is then fitted into broader governance and developmental frames (such as New Partnership for Africa's Development (NEPAD)) where the emphasis is on allowing the forces of the (free) market to ensure cost effectiveness. At the governmental level, South Africa has attempted to reconcile these two departure points, arguing that they are not mutually incompatible. In fact as an offshoot of the Bonn Recommendations for Action (2001) following the International Conference on Freshwater held in 2001, the Declaration of the African Ministers (2001) make this commitment explicit (and shows South Africa's African influence at international fora at the same time). The declaration reads 'We are determined that our governments, non-governmental organisations, civil society and the private sector extend full support to the implementation goals of the NEPAD' (Declaration of the African Ministers 2001).

In South Africa, water resource management strategies which have attempted to reconcile rights based and economic goods based approaches to water have led to different impacts, depending on the translation of policy into practice. The FBW policy is a good example of this. According to Liane Greeff

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<sup>7</sup> The South African Municipal Workers Union (SAMWU) has also played a role in terms of the question of water as a Free Basic Right, and was also opposed to the building of the BWP, not for ecological reasons, but in terms of the costs that the dam would pass on to poorer consumers.

of the EMG,<sup>8</sup> the FBW policy is being interpreted differently and applied differently in various parts of the country. In general, cost recovery and cut-off structures are in conflict with FBW. It seems that ‘the technocrats are not working sufficiently with communities to find solutions’ (Greeff, Interview, 16 July 2004).<sup>9</sup>

The importance of water as both an economic good as well as a fundamental right has been made much more visible in the South African context through the government’s direct involvement in the WCD process. South Africa’s involvement in this process has been high, largely through the commitment of the former Minister of Water Affairs, Kadar Asmal. Asmal, a commissioner to the WCD and one of the influential government forces behind the Cape Town based WCD secretariat, played an instrumental role in creating a hitherto unprecedented platform for interaction on water resource management between environmental NGOs, CSOs, civil society groupings, international environmental groups (such as the International Rivers Network) and government. After the release of the WCD report in 2000, a further “multi-stakeholder symposium” to allow for interaction, debate and deliberation on the WCD process, was also held in South Africa in July 2001. Parallel to this process, as well as arising from it, was the creation of national, regional and international networking structures. The South African Water Caucus (SAWC) is one example. According to Patrick Dowling of WESSA, locally based groups such as WESSA and EMG have been trying to marry the local concerns around the Western Cape’s government’s management of water with these national and international concerns (Dowling, Interview, 8 June 2004).

One of the most active NGOs which has helped to politicise the local water resource management discourse in the Western Cape is the Environmental Monitoring Group (EMG), in particular their Water and Environmental Justice Programme (WEJP). EMG’s activities regarding their WEJP since 1998 have revolved around networking with environmental groups particularly around the South African WCD process in which the EMG played a leading role. In 2001 EMG co-hosted the WCD multi-stakeholder symposium together with DWAF, the National Committee on Large Dams and the World Conservation Union (IUCN). According to the EMG, ‘this event brought over 120 key roleplayers in the dams debate

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<sup>8</sup> The EMG was set up in early 1990s ‘to raise awareness and stimulate engagement and debate on how environmental sustainability was to be articulated in national policy and practice . . . and for the last few years, part by chance, part by design, EMG’s focus has shifted to the global policy arena – and in particular, trying to unpack and illustrate some of the connections between global policy and local impact’ (EMG Annual Report 2001: 7). Liane Greeff is coordinator of the Water Justice Programme, since 1998. This programme has as its chief objective feeding into processes which will lead to ‘the achievement of water security and justice across the spectrum from a household to a regional basis’ (EMG Annual Report 2001: 28).

<sup>9</sup> There are also conflicting opinions of the FBW allocation of 25 litres per person per day (or 6,000 kl per month for a family of four) which some say is insufficient. 50 litres per day is more realistic in Greeff’s view. SAMWU have also been quite vocal in environmental fora on this. Patrick Dowling of WESSA is of the view that raising the FBW has two consequences: ‘it takes away the incentive to save water, and completely undermines the anti-dams campaign’ (Dowling, Interview, 8 June 2004). More trade union orientated NGOs such as Ilrig and SAMWU have raised the issue of increasing the FBW amount to 50 l pp per day, or even 100l. According to Greeff, more research into this is needed, and the South African water caucus (of which SAMWU is also member) is debating this.

from a number of countries and included industry, government, NGOs, affected communities, municipalities, financial and academic institutions and water boards' (EMG Annual Report 2001: 30).<sup>10</sup>

Resistance to dam building at both local and national level has been increasingly sustained by these networks, as well as by the WCD process. In spite of this, resistance to the BWP process fell through the cracks due to the combination of government led participation processes and a time lag in sustained environmental and social mobilisation on the dam. In terms of mobilising broader grassroots resistance, the environmental movement's strategic alliance with disadvantaged groups tends to coalesce more on issues of service delivery and the economic impact of water resource management, the brown environmental issues referred to earlier, than on what are perceived as essentially green environmental issues.

The WCSA process initiated by government and the BWP EIA, which culminated in the setting up of the EMC, initially removed the impetus from the environmental movement's resistance with regard to protesting about the dam and its potential socio-economic impact. The very clear support of the disadvantaged communities of Franschhoek, Paarl and Wellington for the building of the dam in terms of job creation made mobilisation against it somewhat difficult in terms of social justice concerns, especially in terms of WCD criteria (which state explicitly that affected parties compliance is critical). In addition NGOs and CBOs which have been involved in channelling and organising resistance to dam building were coopted onto the WCSA process. Greeff states further that 'a lot of energy went into opposing the Lesotho Highlands water project. There are just so many issues and people just don't have a lot of time to get on top of all the different dams' (Greeff, Interview, 16 July 2004). The extent to which environmental NGOs as representatives of SMs become involved in policy debates is also largely contingent on funding and staff – and of course sufficient grassroots resistance. Both Greeff and McDaid (of Earthlife Africa Cape Town) mentioned that their organisations did not have the time or resources to get involved in all environmental public policy debates to the same extent and that popular resistance to specific policies helped their organisations to prioritise which policy areas and concerns to pursue more vigorously. O'Brien *et al.* (2000: 12) point out that social movements, 'rely on mass mobilisation because they do not directly control levers of power such as the state'. Where such mass mobilisation is not present, in either its local, national or global form, the impetus which Environmental NGOs can bring to bear is

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<sup>10</sup> The EMG was instrumental during this time in the setting up of NAWISA the civil society/NGO Network for the Advocacy of Water Issues in Southern Africa. NAWISA and the Southern African Development Community (SADC) Water Sector Coordinating Unit were given a mandate at the multi-stakeholder WCD symposium to continue with similar meetings in SADC states (Greeff, Interview, 16 July 2004). Three NGOs and three representatives from dam affected communities are represented on the S.A. Water Caucus. The caucus represents the "movement" part of the national and local water environmental activism. At regional level NAWISA operates, and at Africa level there is the African Rivers Network (ARN) was set up in December 2003. The ARN is affiliated to the International Rivers Network.

neutralised. This is very clearly the case in terms of the building of the BWP.<sup>11</sup> One of the key aspects of the scientific “neutralisation of resistance” strategy on the part of government has to do with its construction of the notion of water scarcity. It is to this construction that we now turn.

## **5 Water scarcity in the Western Cape**

In spite of the lack of an official Water Demand Strategy in 1989, the then provincial government proposed the building of another large dam in the Western Cape, arguing that another dam was necessary to ensure sufficient storage for summer months. The Western Cape already has a number of large dams, which supply the CCT and outlying towns. The largest and most important of these are the Theewaterskloof dam in the Villiersdorp area, which is part of a larger inter-basin transfer scheme which includes the Berg River; Voelvlei in the Breede River area, Wemmershoek dam in Franschhoek, and the Steenbras upper and lower dam in the Helderberg/Gordons Bay area. All of these dams are considered “large dams” by international standards, and there are a number of smaller dams and diversion schemes as well. The building of yet another dam, as opposed to say, the raising of one of the above (as was also proposed in the WCSA) or the introduction of water demand strategies has been consistently posed in government language as an issue of “supply assurance”. This line of reasoning has extended since 1989, into the Democratic Alliance (DA) era of the late 1990s in the Western Cape (where the DA and the National Party (NP) dominated in provincial legislature, effectively controlling the province) and is still prevalent among the current provincial and local government structures dealing with water (Dowling, June 2004). As will be obvious from the discussion below, this way of thinking fits into the dominant dam building ethos still prevalent in many states in both the developed and developing world, and uses as its justificatory point of departure the notion of water scarcity and water shortage and drought scenarios to sustain its scientific/technical rationale. What makes the BWP project case particularly interesting is the way in which the participatory processes which legitimated it created public acceptance of the scientific notion of water scarcity.

The building of the BWP was proposed at a time when dam building was not yet contested in South Africa. As one local government interviewee put it ‘in those days it used to be a simple process, we decided we wanted a dam and then we went ahead and built it’. The proposed – but unmet – date for completion of the dam was the early 1990s, this ran into the democratisation of local governance processes which began in the mid 1990s. The Kadar Asmal was not only dedicated to democratising natural resource management, but also committed to ensuring that water management strategies be brought into line with international environmental concerns on managing water scarcity. Early pressure from local environmental groups on the proposed building of the dam led to the Western Cape Systems Analysis (WCSA) Evaluation Process unfolding between 1995–1996 (Ninham Shand 1996: 4).

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<sup>11</sup> Of course some national social movements have less global representation than others. Similarly, the global aspect of the movement may have more strength in some arenas than in others. The environmental movement is a clear example of a global social movement with varying degrees of influence in different multilateral, national and local fora, as well as in different national and local contexts.

While this process had as its primary aim to bring about a process of democratic decision-making on water supply and demand management in the Western Cape, it must however be seen in the context of how it was managed by both provincial and local government structures. DWAF at provincial level, and the City of Cape Town at the local government level, proposed a set of options to a group of selected “interested and affected parties” in a series of publicly advertised meetings. These options were packaged and presented by the consulting engineering firm favoured by DWAF in the Western Cape, Ninham Shand, and the participation process was in a similar fashion contracted out to a conflict management and participation consultancy, Zille Shandler and Associates. Participants were posed with an array of options. The most feasible, according to various scientific academic reports, was the Berg River dam – if the Western Cape’s water scarcity problem was to be addressed in the medium term.<sup>12</sup>

Documentation from Ninham Shand (now also one of the engineering firms contracted to provide engineering support to build the dam) confirms that while options were debated, participants were given “plain language” information sheets on the alternatives, of which all were supply-side options, with the Berg River dam was listed first and argued as preferable (WCSA *et al.* November 1997). The Water/Amanzi Information Sheet released by the participation consultants also clearly states the DWAF’s support of the Berg River project.

Although studies have identified the best options from a technical point of view, the ideas of the people who use the water must now be heard. This together with the technical studies, will make it clear which options to implement first. But because the situation is urgent, DWAF has agreed to start more detailed planning on the Skuifraam scheme. Of course if the Skuifraam Scheme cannot be developed now for any reason, this detailed planning will have to wait’ (Water/Amanzi Information sheet for the WCSA process developed by Zille Shandler and Associates 1996: 3).

The above extract also indicates that the DWAF had decided to go ahead with planning the Berg River Dam because of the “urgency of the situation”, creating the impression that in the absence of short term intervention, severe water scarcity could ensue. The entire WCSA process was also run parallel to the development of the BWP EIA, which is mandatory in terms of environmental legislation.<sup>13</sup> This gave many participants who were involved in the WCSA the impression that they were involved in a “post-hoc” process – as EIAs are not usually commissioned before public consensus on a final project is reached.

While the EIA was being debated, a Task Team was elected by participants to the WCSA process to deliberate the supply and demand side options set out in the WCSA documentation. A series of independent reports were commissioned from scientists, and economists and a social impact study was also done (*WCSA Evaluation Report*, Ninham Shand and DWAF 1997). The final outcome of this process

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<sup>12</sup> There were numerous other options, not all of them plausible, or even possible at the time – ranging from desalination, to towing icebergs to the Western Cape. Most of WCSA options were supply side options – some of these are taken up in the CCT’s Water Services Development Plan (WSDP). See also footnote 17.

<sup>13</sup> EIA processes were tightened up even further by revisions made in 1997 to the Environmental Conservation Act of 1989.

was that the Task Team ranked the supply and demand side options provided by DWAF and gave the go ahead for the building of the BWP dam, providing the EIA process raised no strong environmental concerns.

The final EIA document, also commissioned by DWAF from Ninham Shand, was publicly aired in 1996 and calls for comment were made. By the end of 1997 this process had been finalised, but one of the final conditions for the building of the dam by Kadar Asmal was that the CCT show its commitment to Water Demand Management. At the same time Minister Asmal became involved in the World Commission on Dams process as a Commissioner. Between 1998 and 2000 the building of the dam was put on the backburner as the CCT went through its transformation process to a “uni-city” and the WCD process ran its course.

It was only from early 1999 – a year after the formal participation processes were wound up – that there were further objections to the building of Berg River Dam from local and national environmental groups such as the WESSA and the EMG. A loose coalition of environmental NGOs including EMG and WESSA as well as interested individuals held a number of meetings with DWAF and CCT at this time. This resistance was mostly a result of the resurgence of resistance to dam building which the WCD process had evoked.

The resistance of the coalition was, however, too little too late. The EMG, SAMWU, Earthlife Africa Cape Town, WESSA and the South African Rivers Association, opposed the building of the dam through official submissions made in 1999. The environmental NGOs opposed the dam in terms of three factors: the lack of demand management on the part of the CCT, the increase in cost to Cape Town’s water supply, and environmental impacts to the whole of the Berg River system (EMG Letter to Department of Environment and Tourism (DEAT) and DWAF, 29 July 1999). SAMWU was opposed to the building of the dam more purely in terms of its effects on water tariffs for the poor. According to SAMWU,

[i]t is SAMWU’s position that there will be a drastic increase in water tariffs as a direct result of this project that will hit the poor of Cape Town, who are battling to pay for water.

(SAMWU Press Statement, 29 July 1999)

Some of the points made by the EMG’s submission to DEAT and DWAF were again reiterated in a letter to the new Minister of Water Affairs, Ronnie Kasrils in February 2001. At this stage EMG drew on its considerable involvement in the WCD process to argue that the BWP needed to be more thoroughly debated before being implemented, and that a multi-stakeholder workshop should be held to illustrate that if, against the background of the WCD, ‘the dam is indeed the last resort and is the best option’, environmental groups would support it (Greeff, July 2004; EMG letter to DWAF, 2 February 2001). Economic viability in the light of other options was also highlighted. Kasrils reply dismissed any further deliberations on the dam, stating

[...](a)s regards the (BWP) dam I would like to reiterate what I have said at the recent WCD Forum meeting. The processes which have been followed up until this point had been thorough and closely

conformed to all prescripts of existing rules and regulations. We have examined the processes followed against the WCD guidelines and found there to be good compliance . . . I trust that you will understand my position on this issue and that I have to take into regard that delays in the construction of (BWP) Dam will cause the risk of severe water shortages to the Cape Metropole to be simply too high.

(DWAF 2001, Kasrils, Letter to EMG, 8 May 2001)

Nonetheless, the EMG was instrumental in the setting up of the 2001 multi-stakeholder symposium on the WCD which included references to the BWP process. A meeting preceding this was held at Spier in February 2001 where Mike Muller (DG of Water Affairs) gave a presentation on how the BWP fitted in perfectly with the WCD – an assertion which the environmentalists contested. Muller then explicitly targeted environmentalists as “bourgeois stakeholders”:

Those (civil society groups) who engage most actively in the planning process with the luxury of the long view are often concerned with keeping – or extending – their existing privileged access to the resource, preserving the environment they want, often to the exclusion of the majority of our people. They often have the resources to dominate consultative processes [ . . . ] As the situation in many rural communities shows, such misguided campaigns are also not in the interests of poor.

(Muller 2001: 4)

Why did the environmental movement mount concerted resistance to the BWP process so late? And why was there so little mass support for their resistance to the dam? Representatives of local organisations point to the Franschoek Community (as the most directly affected community) as pro the building of the dam as well as the lack of popular resistance within Cape Town to the building of the dam. This was certainly influenced by the public participation around the WCSA process as some environmental groups were invited to participate, but not others, and the EIA on the Berg River Dam that was undertaken at the same time. It has only been in more recent years that community groupings have become more outspoken about the dam’s negative consequences. Before turning to the participatory processes in more detail, the notion of water scarcity in relation to actual supply and demand side policies provides further context to the scientific valorisation for the dam on the part of government and its consultants.

### ***5.1 A water scarcity crisis? Water supply and demand management strategies in the Western Cape***

In the context of the high influx of informal residents (communities who reside in “informal settlements” meaning shacks or similar, often on illegally occupied land with poor services), the political necessity of providing adequate water to informal areas, and the culture of non-payment, the CCT has limited faith in water demand management as a strategy. Solutions to the problem of water scarcity are sought on the supply side of the water technologies continuum. Thus while there are a range of technical management



solutions to the water scarcity “problem” in the CMA, there is a strong preference towards supply side solutions. This has caused alarm among local environmental groups. As Dowling (WESSA, Interview, 8 June 2004) puts it,

[. . .] is this sustainable development? – reaching our ceiling of demand and then going out and finding a new dam site? Can you keep meeting growth demands at this rate? Certainly not geophysically and nor will it be feasible on ecological grounds. South Africa has a number of very large dams, the product of the last hundred years, but we cannot go on like this for the next three hundred years. Can you keep on meeting water demands like this at this sort of rate? Not just for our children and our grandchildren – it seems to stop at our grandchildren – but what happens after that?<sup>14</sup>

In 1994, at the start of the WCSA participation process, demand-side and recycling alternatives had not really been considered. As Heinrich Mostert (Interview, May 2004), Reticulation Services Coordinator of the CCT, states,

The (WSDP-figure of the) amount of water recycling of between 6–15 per cent is a thumbsuck. It depends on the season and is sometimes more than that, but in 6 months we may have a better sense [. . .] We believe that a very big part of the potential yield of Skuifraam, that is now costing one point something billion rand, could be achieved much cheaper by recycling and replacing treated effluent for irrigation instead of potable water.

The WDM strategy was developed primarily to show DWAF that the Berg River Dam was really needed, as DWAF will not underwrite new dam schemes in the absence of visible WDM strategies. The Integrated Water Resources Plan (IWRP) identified three “supply and demand” packages are seen as complementary to the BWP, and are supposed to help bring down water demand, as well as cater for water demands which, according to growth projections, will exceed supply of even the Berg dam by 2010/2.<sup>15</sup> Recycling of water is not seen at this stage as a major priority, and the reasons for this remain rather vague. It is mentioned briefly in the WSDP (pages 47–8) stating that it is a “priority” and that “The CCT has appointed consultants to refine the work carried out in the IWRP study” (City of Cape Town 2001: 48).

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<sup>14</sup> The WSDP also clearly reveals the strong urban bias present in water supply and demand strategies in the Western Cape. Only 15 per cent of the CCT’s water is derived from within the Cape Town Metropolitan Area (CMA). The rest is provided by DWAF through water supply schemes of which the great majority are dams, as indicated earlier. Towns and outlying rural agricultural areas buy back bulk water from the CCT. In some cases farmers build their own dams or sink boreholes, but these processes are now strictly regulated in terms of the New Water Act of 1998.

<sup>15</sup> In detail, Package 1 targets low income areas (it includes pressure management initiatives, user education, eliminating automatic flush urinals, repairing leaks and tariffs, metering and credit control). Package 2 targets businesses and large consumers, and includes promoting boreholes; introducing water efficient fittings and promoting grey water reuse. Package 3 once again looks at supply side strategies – highlighting for example the Voelvlei Augmentation scheme; the use of the Table Mountain aquifer near Franschhoek; diverting water from the Lourens River in Somerset West, using treated wastewater for irrigation, and right down on the list, ‘treated wastewater reclaimed to potable standard’. The last on the list is ‘desalinating sea water’ (City of Cape Town 2001: 43).

This must be seen in the context of the history of the construction of “scarcity” by government. The Berg Water Dam was already motivated as critically important in the 1990s – hence the pressure put on the WCSA participation process, and the justification to participants that the building of the dam had to be pursued as a process parallel to considering other options because of the urgency of meeting water demand. As highlighted in the Minutes of the WCSA evaluation process in 1996,

[i]t was stated that the capacity of the Berg River dam would meet water requirements for a 5 year period after its construction. At that point it would need to be augmented by new supply measures.

(WCSA Meeting, Villiersdorp, 26 March 1996)

Ironically, the dam will only be completed in 2007, and in the intervening years the Cape Province has managed fairly well on available water, with the exception of the severe 2004/5 drought. The “urgency” stressed by government seems to have extended to the public participation process and to ensuring the dam proposal gained legitimacy in the fastest possible space of time. Nonetheless, the current 2005 water shortage has been blamed on environmentalists delaying the building of the dam, although relatively speaking the movement’s resistance to the building of the dam has had little impact (Argus, 6 January 2005).

## **6 Legitimation processes surrounding the BWP: the role of scientific natural resource management assessments in NRM participatory processes**

As mentioned, the BWP participation process was led by government and involved the cooptation of “Interested and Affected Parties”. In the case of the WCSA a series of workshops were held between September 1995 and April 1996, thereafter the Task Team elected at the last meeting (the Goudini Conference of 1996) independently evaluated some of the options which had been put forward.

The minutes of the WCSA meetings reveal that many participants were uncomfortable with the parallel process, and were also not happy about the way in which Ninham Shand engineering consultants were driving the process.<sup>16</sup> Similarly, the fact that Ninham Shand was responsible for drawing up the Environmental Impact Assessment for Skuifraam was seen as insufficiently impartial.

It is clear from interviews as well as some of the comments of participants (given below) that the participatory process did help legitimise the building of the dam in spite of significant resistance from civil society. A few excerpts from the minutes of meetings, as well as comments from participants emphasise how ineffective government/consultancy tactics were in neutralising public concerns within meetings, but were ultimately effective in terms of the process as a whole.

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<sup>16</sup> Ziller Shandler and Associates were subcontracted by Ninham Shand to do run the participatory process around the WCSA and the building of the BWP.

[. . .] (a participant) raised a concern that the Skuifraam Scheme was perceived to be a *fait accompli* and that the decision to build the dam had already been taken.

(WCSA Public Meeting, Paarl, 4 December 1995)

It was suggested that the WCSA evaluation was a whitewash.

(WCSA Public Meeting, Grabouw, 13 February 1996)

It was argued that engineers were promoting the building of dams because they had a vested interest in building them.

(WCSA Public Meeting, Villiersdorp, 26 March 1996)

Concern was expressed that the Skuifraam Dam IEM process and the Western Cape Systems Analysis evaluation are running at the same time and that participants do not have the capacity to make a meaningful input into both processes.

(Skuifraam Dam Integrated Environmental Management Process,  
Workshop, Franschoek, Thursday 13 June 1996)

A participant expressed the opinion that it appeared that a decision about the Skuifraam Dam had already been taken. Pieter Van Niekerk (DWAF) explained that the Skuifraam Dam was one of the technically most feasible options but due to the long lead time the feasibility study had to start sooner than other schemes which may be implemented before it.

(Skuifraam Dam Integrated Environmental Management Process,  
Workshop, Franschoek, Thursday 8 July 1996)

A participant raised a concern about the fact that Ninham Shand was conducting both the engineering and environmental studies. She questioned whether the environmental report would be unbiased. Steven Granger (Ninham Shand) explained that the Integrated Environmental Management process was an open and transparent one, and it was impossible to hide any facts.

(Skuifraam Dam Integrated Environmental Management Process,  
Workshop, Franschoek, Thursday 8 July 1996)

The feasibility study must be done by an impartial and independent assessor. Ninham Shand's involvement in the WCSA, Skuifraam feasibility study and the Environmental Impact study cannot ensure impartiality.

(Ninham Shand 1996, The Environmental Impact Assessment and responses  
from Interested and Affected Parties Report)

DWAF's official response to the above concerns was that 'on 4 December 1995, it was agreed that as Ninham Shand had undertaken the WCSA, it was well placed to undertake further detailed work on the

Skuifraam dam (Responses to the Environmental Impact Assessment Report, Ninham Shand Feasibility Study Documentation 1996). However, here is no record of this debate, nor signs of general agreement in the minutes mentioned of 4 December 1995.

The consultancy process had other neutralisation effects. In response to criticism of Skuifraam as out of line with the WCD, Ninham Shand's Environmental Division together with DWAF, prepared a review paper detailing the WCD guidelines applicability to the BWP for the WCD Symposium held in Gauteng in July 2001. The document makes for interesting reading, as it outlines the degree to which WCD guidelines are "relevant" to the building of the dam. The authors of the paper, Luger and Van Niekerk of Ninham Shand state '[t]he review concluded that the environmental and public participation processes undertaken for the (BWP) dam broadly complied with the WCD guidelines. However it became clear that certain of the guidelines were either only marginally applicable or inapplicable to the BWP dam' (2001: 1). As Section Seven highlights, this dismissal of the WCD guidelines amounts to a denial on the part of the WCSA and EIA consultants of the potential effects of the building of the dam on the ecology of the West Coast, as well as its related socio-economic impact – two issues which are stressed as very important in WCD guidelines. In relation to this, even though participants to the WCSA and EIA processes were critical of the "scientific facts", finally their presence legitimised and gave authority to government's position, primarily because they did not have the scientific wherewithal to counter the official discourse on water scarcity.

### **6.1 The cost of the BWP: implications for social justice?**

According to the CCT's figures, the average increase of water tariffs for the next five years will be around 10 per cent per year, almost doubling the cost of water in the next 10 years.<sup>17</sup> This "step up, step down tariffing" to the building of the dam is said to involve the least risk to the CCT and the TCTA, and will mean that future supply schemes can be implemented towards the end of the decade (CCT Bulk Water Supply Division 2004; Killick, Interview, 15 June 2004). The full impact of the dam on tariffs will only be felt towards the end of the building, as it is then when the unforeseen costs will have a knock-on effect of the full amount owing.

There has been little resistance to these price estimates by either affluent or poorer ratepayers, this seems less as a result of apathy than lack of knowledge, combined with the CCT's ongoing insistence as to how water scarce the Western Cape has become. Information on the cost implications of the dam to the public has been sorely lacking, and the environmental movement have not been very successful in obtaining figures from government. As Greeff (EMG) and Dowling (WESSA) have pointed out, the motivation of groups like SAMWU to mobilise has usually been linked to the effect which water resource management has on poorer communities. The CCT and DWAF have reason to be hesitant to divulge the full financial implications of the dam on tariffs.

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<sup>17</sup> Assuming a low inflation rate of 6.5 per cent the average water tariff is set to rise by 10 per cent between 2003/4 and 2006/7 – or 50 per cent in five years, and thereafter at between 5 and 9 per cent.

In terms of the construction of water scarcity, it is interesting to note that Water Restrictions for 2003/4 were not implemented because of National Elections, according to Van Zyl (DWAF, Interview, May 2004). They were implemented in January 2005 as the dam building commenced and are likely to stay in place for some time as dam levels in the Western Cape in general are about 40 per cent. Dowling of WESSA (Interview, 8 June 2004) states that,

... dams (are) inefficient, having damaging consequences to fisheries, and take away water management empowerment from the people and puts power fairly and squarely in the hands of the dam owners. This also lessens the necessity for really good water demand management, which the CCT really only seems to get involved with at times when it might get egg on its face if the water really ran out. Then it gets into what it calls water restrictions but then it loves to lift them. So then it looks like a hero all the time . . . it's a hero for building the dam, a hero for lifting the restrictions . . . – it is great to be seen as yourself, your political self, up on that wall, 16 metres high, cutting that ribbon. Cutting the ribbon on an improved wastewater treatment works is just not going to happen – it is not nearly as heroic. It is just as important, it has a major impact on the environment as we've seen all round Cape Town. Dam building is taking the pressure off good husbandry, in Wessa's view.

The way in which water restrictions were put in place in 2005 adds weight to Dowling's point. Because the CCT had not imposed mild restrictions in previous years, draconian water saving measures were introduced. At the same time the BWP scheme has been mentioned on more than one occasion since January 2005 as the solution to Cape Town's current water "crisis".

## **7 Mobilisation and participation on the Berg Water Dam project**

To summarise thus far, in the broader Western Cape context, the building of the Berg River Dam has elicited the rise of three kinds of community participation, namely the process of "co-opted participation" already discussed, which took the form of both advertising for affected communities to participate in public meetings and to find representation on the Berg River EMC, as well as the resistance which arose around the WCD process mainly from the environmental movement. The third kind of participation resulted out of the perceived exclusion of certain groups, namely the West Coast, which is in fact the region which will be the most affected by the proposed scheme, being downstream, and located in an ecologically very fragile system. Participation has differentiated accordingly, with the WCUG being by far the most critical and directly confrontational in the last few years. The "co-opted" process has also been affected as a result, with issues surrounding in particular responsibility for compensation of lost income and livelihoods as a result of the damming of the river being the most controversial. There has not been much linkage between the environmental movement's resistance to the dam, and the activism which has arisen within the downstream user group, in part because of lack of organisational linkage on the part of the activists and environmental groups, but also in part due to the co-opted participation process.

Stakeholder involvement in the building of the dam has been a fraught issue in spite of, or some would say because of, the legitimisation process which led up to the dam. While the West Coast was included in earlier WCSA deliberations on the dam, they were omitted from the process of public notification which went along with the setting up of the EMC. As far as the WCUG (formed in 2001) is concerned, they were also not given sufficient notification or time to respond to the proposed building of the dam (Fourie, Interview, 12 December 2003). This is confirmed by David Shandler of Zille Shandler (Interview, 17 June 2004) who says this oversight was one of the “weaknesses” of the participatory processes of the 1990s. Both Luger and Gorgens of Ninham Shand also state that issues of water quality raised by WCUG were not seen as that important in the 1990s (Gorgens, Interview, 1 June 2004; Luger, 18 May 2004).

The ecological impact of the dam is in fact one of the main issues which has arisen within the EMC, and while government has wished to downplay the concerns of both WCUG and environmental groups, the issue has remained high on the Committee’s agenda. Dr Martin Fourie, technical advisor of WCUG, scientific expert on water management with a PhD on Mineralisation of the Berg River (obtained in the 1970s from Stellenbosch University in the Department of Engineering), has undertaken his own detailed study and critique (in his own time and with his own resources up until recently) of the official EIA commissioned by DWAF. He has tried to show that the salination projections given in the report are very inaccurate, and that the building of the BWP will affect the water quality in the lower Berg River with consequences for farmers, consumers and tourism – as the Langebaan Estuary will be affected by salination.

The BWP EIA was distributed to Wellington, Paarl, Franschhoek and Cape Town and not the West Coast, even though the West Coast area as downstream users will be the most severely affected by the consequences of building the dam. Their input into the EIA process was thus also after the fact. Similarly, the EMC was originally supposed to represent everyone, but since the West Coast was not included in its initial establishment procedures (due to an oversight on the part of the TCTA) they joined somewhat later. Dr Fourie set about establishing WCUG to represent the direct interests of the area.<sup>18</sup> To try to ameliorate the dissatisfaction of the West Coast Community of having been omitted from public participation processes, the then Minister of Water Affairs, Ronnie Kasrils, visited the West Coast in 2001. Kasrils acknowledged there were flaws in the EIA with regard to the question of water quality but said the dam was going ahead regardless, as it was essential to the Cape Metropolitan Area’s water supply (Fourie, Interviews, December 2003).<sup>19</sup>

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<sup>18</sup> Dr Fourie is technical advisor to this group, representing civil society, farmers, Saldanha Steel and Namaqua Sands (the two big industries in the Langebaan area), and the West Coast District Municipality (which is composed of a number of smaller municipalities, including Langebaan and Greenberg (there are about 20 people attend on a regular basis).

<sup>19</sup> Fourie also cites the example of past EIAs which have made faulty projections which have damaged the delicate water resource situation of the West Coast. According to farmers in the area, the Langebaan Aquifer utilised in the 1990s has led boreholes throughout the area to run dry, despite assurances in the original EIA that this was unlikely to happen.

The WCUG is managed and mostly representative of farmers and business in the area, with nominal representation by “disadvantaged groups” who make up a small percentage of those whose livelihoods would be affected directly (in terms of farming for example). However the West Coast is a growth node with industries employing a significant number of workers, and indirect effects of more expensive water (due to salination of the lower Berg river, and steps to offset this) on industry would be passed on to the large number of semi-skilled workers (and aspirant workers – unemployment is high) in the area. It is unclear how motivated (or successful) the WCUG would have been in the absence of the leadership figure of Dr Fourie, who has the scientific wherewithal to challenge the DWAF and Cape Metropolitan Council’s (CMC) authority on the impact and the necessity of the dam (even though this may be called to question by the engineering consultants).

### ***7.1 Regulating participation? Urban–rural participation: the Environmental Monitoring Committee (EMC)***

The EMC consists of stakeholders who will be affected by the dam, i.e. upstream and downstream users (but not broad based urban groups). According to the Record of Decision (ROD) which came into effect once the EIA process had been through governmental channels, the EMC should be set in place by government to ensure ongoing participation of interested and affected parties. Ratepayers, previously disadvantaged groups, farmers, business-people and those involved in Franschhoek’s tourist trade are represented, as well as the CCT, local and provincial government, and DWAF. Interestingly, while Paarl, Wellington, Villiersdorp and Franschhoek are represented in terms of civil society groupings, the Cape Town metropolitan area is represented only through environmental groups, and there are no urban user associations on the EMC despite the cost and environmental implications for urban water users. Thus while the dam is mostly being constructed for urban water usage, the EMC represents “rural” civil society. The degree to which this has been a strategy to legitimate the acceptance of the dam has been debated within and outside the EMC. Certainly the perception of cooptation seems to be an issue, and one which has raised its head throughout the EMCs short life, culminating in the walkout of the Franschhoek community representatives on 10 June 2004 (discussed in more detail below).

Venter (EMC, Chair, 8 May 2004) describes the three major issues that have bedevilled the EMC since its inception. These are the issues of water quality; the issue of indemnity of committee members against possible future legal action by disaffected communities or individuals, and socio-economic issues around livelihoods and the environment.

#### ***7.1.1 Water quality***

The question of water quality raises the major environmental concern on the building of the dam, that of the potential miscalculation on the part of the original BWP EIA to measure the potentially catastrophic effects of the damming of the Berg River on the lower Berg – especially the Langebaan estuary. Dr Fourie’s point of contention is that it is clear that salinity levels will exceed those projected by the EIA.

Fourie's figures show that salinity levels could exceed 500 mg per litre for more than a few weeks at regular intervals. Fourie points out that Gorgens from Ninham Shand has himself agreed that doing monthly flow weighted average projections gives an incorrect picture of potential problematic salinity. Fourie's data, based on weekly data, shows the highs and lows much more accurately, according to him, and he is in the process of compiling more accurate statistics.<sup>20</sup>

Fourie concludes that with 'such blatant errors in the BWP EIA it shows that it is necessary for someone to go through the processes with a fine comb for errors' (Interview, 5 June).

Gorgens has stated that the EMC is not the right vehicle for the WCUG's issues and that strictly speaking the National Catchment Management Agencies (CMAs) should be dealing with these sorts of environmental concerns. However at present none of the proposed CMAs have as yet been set up in the Western Cape (or nationally for that matter). Gorgens states further,

[...](his) approach is not totally scientific, although it has a fair degree of science in it. Right from the start I used to appreciate Martin's role because he was "pushing the boundaries" and he was basically doing what all of us should be doing which is go out there and fight for our rights as we see them, even if we may see them wrongly. I am not saying what he is saying is not right. But his data is suspect.

(Gorgens, Interview, 1 June 2004)

Luger, who drafted the EIA for Ninham Shand, also places the burden of responsibility for proving the negative effects of the dam on the West Coast community and particularly on Dr Fourie,

(a)s a latecomer to the process for whatever reason he is painting a very particular picture and he has made an enormous amount of noise about the lack of involvement and possibly the inadequate attention to water quality. In some ways I think he has a point, remembering that the environmental approach itself, and the WCSA process did include all areas ... There is a responsibility in all environmental processes for people to identify themselves and to participate in studies when given the opportunities.

(Luger, 18 May 2004)

It has been left to the EMC to try to resolve these and other issues. At this stage the committee remains deadlocked on a number of contentious points, with participants increasingly frustrated by the lack of influence they have on the BWP process through their participation.

The debate around water quality has been largely technician/scientific. The question of flow weighted averages showing that the salinity of the river downstream will be a serious issue after the building of the

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<sup>20</sup> Fourie and Professor Andre Gorgens of Ninham Shand met at a workshop on 10 March 2004 to try and reconcile their differences as requested by DWAF and the EMC. According to Fourie, while some of his data might have been faulty (due to faulty DWAF figures) the question of the fact that the EIA was based on a "literature review" of WCSA data, rather than proper solid predictions, and also that it was based on monthly rather than weekly flow weighted average predictions of salinity, still means that he takes serious objection to the projected salinity effects of the BWP on the West Coast area.



dam continues to be raised, and the EMC accepts that unless proper steps are taken to ensure that this is adequately monitored, it could cause significant problems which could affect agriculture downstream as well as businesses in the lower Berg area. The question of excessive salination in the Langebaan estuary is also mentioned by WCUGs environmental representatives, who hold that the negative consequences of this could also make the dam economically unviable, should industries and business downstream choose to claim on the basis of loss of industrial capacity, jobs etc. Dr Venter states that while the Minister of Environmental Affairs admitted in 2002 that this was a problem, and a mistake in the EIA; only monitoring and finding “solutions” to the problem of water quality have been proposed. Ninham Shand, the company responsible for the EIA, are, according to Gorgens, ‘looking into this’.

It is clear that the issue of downstream water quality cannot be ignored. However it is an especially difficult debate to enter into for the layperson. Flow weighted averages are worked out using scientific calculations and different forms of modelling which are to the lay person quite impenetrable. However, in simple terms, the issue arises as to how often the average of salinity levels is checked as this can vary greatly depending on off take and seasonal rains. Fourie’s point is that the EIA has used projected averages that do not take sufficient account of this variability, and hence the grave salinity problems that the West Coast will face which are not found in Ninham Shand’s EIA report. Given the fragile eco-system and development status of the West Coast, this will have serious long term potential consequences. It is also important to note that the EMC has become the sole “space” in which questions of ecological impact are being debated – the environmental movement, as well as local stakeholders represented by WCUG are channelling their resistance through the EMC as their efforts to mobilise other forms of resistance have been unsuccessful.

### *7.1.2 Indemnity*

Another extremely important issue with regard to the functioning of the EMC, is that it has not been given powers of intervention should anything untoward happen with regard to the building of the dam, and related potential negative consequences. If for example toxic substances are flushed into the Berg River during the building of the dam, the EMC cannot halt the building of the dam, even though ultimately the committee is seen as responsible for addressing civil society issues. Instead, the EMC has to report to the TCTA, which then reports to DWAF. EMC representatives have been concerned that problems could then potentially spill over into potential liability cases (opportunistic or otherwise).<sup>21</sup> Similarly, once the dam has been built, or during building, should salinity levels increase dramatically, there would be nothing which the EMC could do about this except feed the information through to government and hope for the best. In a sense thus the EMC is a toothless watchdog, according its representatives (Venter, Interview, 8 May 2004). It has the ability to present grievances and viewpoints, but ultimately no power to act on this.

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<sup>21</sup> The issue of EMC members being sued is apparently made even more of an issue by the presence of a number of very wealthy representatives from the Franschoek area in particular.

The question of the mandate and power of the EMC came to a head over its name in 2003. Members of the committee argued that since the ROD referred to a “Management” Committee, by right more power over the process of dam-building should be accorded. Government responded (through DWAF) by stating that the name should be changed to Monitoring Committee, as happened in April 2004. This change is to indicate that the EMC has no power to actually halt the construction of the dam. While members have felt cheated by this sleight of hand, the issue of indemnity has been the channel through which the sense of powerlessness has been turned around and reflected back on government.

The EMC have referred their terms and conditions of indemnity to the Guarantee Committee of the Department of Finance, which is the only government body which can legally take up responsibility to cover costs of legal wrangles over possible problems arising from the dam. The potential risks of government overextending itself and possibly causing damage to both the environment and to livelihoods have therefore been shifted back to government by civil society through the EMC, which is a very positive sign. The EMC, while co-opted, has not allowed government to shirk its responsibility.

The TCTA has finally responded to this matter through the release of a publication on EMCs. The report argues that EMCs cannot be held liable, as ‘the EMC is not one of the more common forms of legal entity . . . (t)he EMC does not have a separate legal entity and so could not be sued in its own name as a juristic person’ (DEAT 2005: 13).<sup>22</sup> This assurance also comes at a time when the continued existence of the EMC hangs in the balance, due to the departure of the Franschhoek Group from its ranks of participants. Arguably, one of the major functions of the EMC – to ensure the social justice aspects of dam building were complied with – is no longer operative.

### *7.1.3 Socio-economic issues*

The major issue on the part of disadvantaged groups, as taken up by the Franschhoek group as well as other wealthier representatives, is the question of the socio-economic impact of the dam. While wealthier residents of Franschhoek are more worried about the environmental impacts of the dam, such as its potential impact on natural ecosystems and the like, they have stood by the disadvantaged representatives to the point that when the TCTA reneged on its promises to the Franschhoek Community, the entire representation decided to leave the EMC permanently early in 2005.

The major issue is around job creation. The TCTA, as the public company tasked by government to oversee the building of the dam, committed themselves to employing at 75 per cent of dam building related contractees from the Franschhoek Valley. This policy, called Franschhoek First!, was underwritten by a skills audit conducted by the TCTA. Furthermore, 5 per cent of all skilled labour must also come from the greater Western Cape, leaving only 20 per cent of all labour to be outsourced beyond Franschhoek and Cape Town.

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<sup>22</sup> Interestingly, while this assurance is given in the publication, there is a disclaimer in the introduction which states ‘The opinions expressed and conclusions drawn are those of the author . . . (and) do not necessarily reflect the official view of the Department of Environmental Affairs and Tourism’ (DEAT 2005: 1).

However, at an EMC meeting held in mid 2004, the agenda which was to be followed was challenged by the Franschhoek community, in particular, the representatives of the “disadvantaged community” civil society groupings. These representatives felt they could no longer continue to attend the EMC meetings because the policy of Franschhoek First! was not being adhered to by the newly appointed contractor. As it had transpired, the contractor had been appointed just two weeks earlier and had already sub-contracted to a company in Paarl to do the stone crushing and bush clearing required before the dam construction could begin. The civil society representatives consequently felt they had been put in a very compromising position. Both Masiko (civil society) and Owen (IDP) stated that they felt:

we can no longer sit here anymore . . . we have to look at what options we have, and we have decided certain actions must be taken. We are sick and tired of the TCTA . . . and even though thousands of rands have been spent on consultants . . . this Franschhoek First! policy is on paper and nothing more. We want it recorded and we want it to go down in history that we are not going to accept TCTA’s attitude . . . We as the previously disadvantaged are seeing our opportunities being taken away . . . so we have decided to leave the EMC.

(EMC, Authors’ transcript of Public Meeting, 10 June 2004)

When asked, the contractor verified that they had in fact appointed a sub-contractor from outside the valley. While David Venter, the Chair of the EMC, tried to persuade the representatives to stay, Wilfred Moses of the IDP led the Franschhoek delegation’s move to leave by saying ‘we cannot continue with this agenda and we move to terminate the meeting. Our integrity is at stake here’.

In the comments that followed before the meeting ended it was clear that the TCTA representatives were considerably put out by this lack of cooperation on the part of civil society, as well as what seen as “lack of support” on the part of the Chair (who is paid by the TCTA but who was elected by the committee). Johan Claassen of the TCTA added that the TCTA is ‘helpless unless protected by the Chair’, clearly signalling that the TCTA felt they had been let down by Venter. Venter defended himself, saying he had only got wind of the Franschhoek community’s grievances shortly before the meeting.

The dynamics of the civil society cooperation and participation in a government legitimised space show how such processes can still work in favour of civil society interests. To the extent that this raises the concerns of the more vociferous and organised, namely the Franschhoek group, rather than the concerns of the broader majority of Cape Town urban dwellers, or the less organised labour groups on the West Coast, is of course still a vexed issue of the participatory process, and shows clearly how different, equally legitimate, interests compete.

The issues that have been raised within the EMC demonstrate that while the committee was set up through government initiatives, it has taken on participants’ rather than government’s concerns, and has not simply functioned as a rubber-stamping mechanism. Ironically, it is this attempt to change the nature of the “invited space”, which might bring about its demise. As of mid 2005, the functioning of the EMC hangs in balance, with the DEAT arguing along with the TCTA that the EMC is “dysfunctional”. The

Franschhoek Community and the TCTA have not been able to reach a compromise on employment, and the Community has decided to remain outside of the EMC. This has, according to DEAT and DWAF, compromised the functioning of the EMC to such an extent that it should be disbanded, and replaced with public information meetings. Other EMC members, including WCUG are arguing that should the EMC be dissolved, ecological issues such as that of salination may be glossed over by government. Similarly the social justice component will then not be monitored at all. Arguably the disbanding of the EMC would be against the Record of Decision unless it is with the members' consent. The EMC agreed to meet in May 2005 to resolve these issues. DEAT has not made representatives available to attend the meetings (Venter, Interview, 22 May 2005).

The existence of the EMC has also institutionalised a space for cooperation and participation on the building of the dam which up until now has worked against the development of a strong activist front on the part of the environmental movement in collaboration with others. This formal space has arguably channelled resistance against the dam in ways which have still brought strong civil society resistance to bear. Arguably however, these government organised formal spaces have tended to close out more populist social movement activism in the process, thus neutralising to some extent the social movement forms of activism.

## **8 Conclusion**

Finally we return to the broad theoretical questions framed at the beginning of this paper, in the light of the broader theoretical analysis on social movements and the analysis of participation in water resource management in the local/national/global context of South Africa.

### ***8.1. The influence of global discourses on the environment, water resource management and development***

While it is fairly obvious that local policies and processes have been *influenced* by GSM discourses, particularly the WCD process, it does not seem that at the level of government policy practice there is a concomitant follow through in *commitment* to international protocols and guidelines. However, South Africa, through DWAF, has made significant attempts to open up spaces for participation and has in the process created spaces for contestation. As the WCD, WCSA and EMC participatory process make clear, at international/national; national/provincial and provincial/local levels respectively the local and the global are interconnected, but not always in very obviously visible ways. The language of scarcity, natural resource management and development still permeates actors' perceptions of and involvement within water and environment discourses, both those of government, as well as those who participate as "activists" or on behalf of "civil society".

In terms of the participation of local communities there appears to be a tension – but also a complex set of power relations – underlying the two discourses – that of science, and the science of managing scarce resources, versus the language of rights and empowerment of actors, in particular disadvantaged

groups. The rights based language tends to motivate grassroots activism in conjunction with more organised forms of environmental activism. This intersects with the economic/scientific/developmental frame of government policy which increasingly tends to favour a more economic approach to water supply and demand, albeit one which is peppered with references to international best practice norms on good government and best practice water management.

Following through some of the arguments for social movements and change posed at the beginning of this paper, it could possibly be argued that in certain contexts, such as the local/national/international participatory processes that have informed the building of the BWP dam it would seem though that social movements' strength to bring about radical change is tempered by the creation of organised spaces of resistance. In a sense then, so called "democratic spaces" may take some of the impetus away from more unorganised potential forms of resistance, as Epstein (1996) points out in the case of AIDS activism. Secondly, instead of finding common denominators to bind the interests of non-state stakeholders together, formalised (or co-opted spaces) such as those described here allow for the representation of more narrowly based group interests. This is not necessarily a bad thing, but it does seem to change the nature of social movement interaction with governance structures as well as the ability to mobilise on common issues. These two observations would seem to confirm that the translation of the *potential* of certain groups into *actual* active patterns of resistance leading to change is mediated at both the local as well as the national and international levels by a range of dynamics and power relationships which are strongly mediated by (scientific) knowledge claims, and not only the economic interests of potential stakeholder groups.

This confirms Tilly's (2003) viewpoint that both political opportunities as well as economic incentives help to give rise to activism and adds some detail to the perspective of Cox (1987) on the interplay between social forces and social movements.

## **8.2 Lay knowledge, technological solutions to water resource management problems and community based participation in areas of technological innovation and water provision**

The extent to which lay knowledge is given legitimate space within the scientific/developmental discourses such as water resource management is clearly a vexed issue. As the examples cited above show, lay knowledge is often clearly insufficient to allow for stakeholders to participate properly. In many cases government/consultancies seem to be aware of this and exploit it, with greater or lesser degrees of discretion, to their own ends. As the WCSA process as well as the EIA process of the BWP dam shows, it is relatively easy to swamp stakeholders with information that they are not really able to process, and to engage them in ways which do not give them the ability to contest issues in meaningful ways. The strength of the environmental movement is to a large extent that it is able to muster the necessary credibility to make interventions regarding technological solutions which speak to the same frameworks as those of the engineers. However, as Epstein (1996) points out in another context, this also distances these "lay

experts” from the groups they also wish to represent, in this case, the urban marginalised, who may be less interested in the “science” issues, and more interested in how processes will directly affect their everyday realities in concrete ways.

The technological nature of the water management discourse also alienates those who are less educated and less well informed. As is clear from the WCSA and the EIA processes as well as larger national and international processes such as those around the WCD, the really poor and uneducated are unlikely to be able to find legitimate voice or space in these processes. It might be less a question of interest (material or otherwise) and more a question of opportunity (or the lack of it) which keep really poor communities from voicing their opinions and preferences, as well as mobilising on the basis of them. Where political opportunities are presented, such as the BWP EMC, it seems poor communities do mobilise, especially where alliances can be formed with other influential stakeholders.

### ***8.3 Links between scientific and technological innovation and activism in the South, and local/global networks on globalisation and development***

Anti-globalisation, anti-commoditisation movements on development, environment and natural resource management have been much more vociferous at the national level in the South African context (Bond 2002b). While these debates are certainly at least indirectly relevant to supply side biases in broader water resource development strategies such as that of the Western Cape provincial government, there is insufficient synergy between local and national activists’ networks leading to the kind of social movement activism found in India on the Narmada dam for example. The alliances between old and new social movements remain somewhat underdeveloped at the local level (in the Western Cape at least). Similarly the global anti-dams movement, represented through local/global networks described above, have not had very much impact on the local participatory processes around the building of the BWP, partly through the government’s strategy of co-opted participation, and partly through constraints on information on the scheme, particularly the costing, which has meant that alliances between unions and the environmental movement have remained weak. Also the extent to which participatory processes have taken on the “concerns of the disempowered” i.e. the Franschoek community in particular, has removed some of the impetus from the environmental lobby.

In the Western Cape Region, the most influential groupings have been the EMG and the WESSA as well as to some extent the local branch of Earthlife and SAMWU. Their input into water resource development governance strategies and related participatory processes is ongoing. Yet the extent to which these groups’ intermittent local activism reflects the day to day realities of poor urban and rural water users, in the Western Cape context at least, is hard to assess, as there seems to be such sporadic visibility in terms of both activism and issues. Part of the reason is the different layers of discourse on green and brown environmental issues, and the ways in which these are dealt with in developmental terms. The government has sought to make a fairly rigid distinction between supply and demand side strategies, and also between the human rights side of resource strategy as opposed to the scientific/

technicist/developmental side which speaks more to economic exigencies which are sometimes portrayed as inevitable and therefore not up for discussion. This separates “green” from “brown” environmental issues in ways that conceal the extent to which decisions on former are not connected (at least initially) to their impacts on the latter. In relation to this, the question of the cost of water, water demand strategies, as well as who gets what in terms of water services, is not directly linked to the water scarcity debate and the argument about the need for more water to meet developmental needs.

Finally, and more generally, challenging hegemonic modes of knowledge presentation and interaction clearly demand sustained opposition, as the International Relations perspectives on social movements makes clear. In this analytical frame, the local context within which global and national debates on natural resource management play themselves out is key to determining the extent to which activism gives rise to grassroots forms of social mobilisation. Similarly, the degree to which GSMs are able to sustain local resistance is critical to long term change.

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